

Industrial Connectivity Solutions



**Be certain.
Belden.**

**Intelligent Connectivity Solutions
for Industrial Automation**

 **HIRSCHMANN**
A BELDEN BRAND

 **lumbergautomation**
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Belden Solutions

Connectivity Solutions from Hirschmann and Lumberg Automation stand for a broad range of industrial applications, space-saving design and technical know-how for every environment.

**Be certain.
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About Belden

Belden Inc., a global leader in high-quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis and has manufacturing capabilities in North and South America, Europe and Asia.

Effective Signal Transmission Solutions

At Belden, our customers and their requirements are our top priority. All of our leading brands – Belden, Hirschmann and Lumberg Automation – enjoy an excellent reputation for quality, while adding value to their respective core markets. The combination of proven experience and innovation behind these brands has made Belden the largest provider of an integrated range of wired and wireless systems.

Belden offers an extensive product range, including cables, connectors, I/O modules and networking components. Given the diversity of our brands, we have the industries most diversified product portfolio to enable a complete signal transmission solution from a single source with worldwide market access and delivery.



Connectivity Solutions for Automation Technology

Hirschmann and Lumberg Automation connector products together form a strong unit – Industrial Connecting Solutions.

The Hirschmann and Lumberg Automation brands are synonymous with high quality connectors and innovative wiring solutions for use in virtually all areas of automation. Our customers use Hirschmann and Lumberg Automation products in machine building and plant engineering, building wiring installation and in the field of renewable energy.

The product portfolio for these two brands comprises a wide range of connectors, single and double-ended cordsets, for signal transmission to and from sensors and actuators as well as data communication as well as I/O modules for connection to fieldbus and Ethernet networks.

Hirschmann and Lumberg Automation products are renowned for their high mechanical and electrical loading capacity, excellent chemical resistance and ease of use.

Together, Hirschmann and Lumberg Automation are among the world's leading suppliers of signal and data transmission infrastructure in the field level of industrial environments for any kind of automation technology.





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I/O Modules, Data and Power Cordsets for Industrial Automation

System Components for an Intelligent and Reliable Data Transmission

When your application demands the highest standards of reliability and effectiveness for an integrated communication system, Belden and its Hirschmann and Lumberg Automation brands deliver best in class compact and modular I/O modules and high quality connectivity solutions.

Belden is a partner you can rely on by offering standard and customized connectors, cordsets and corresponding accessories for Ethernet/IP, PROFINET and numerous other industrial fieldbus protocols.

The Best Solution for Every Requirement

For use in the harsh industrial environments of factory automation, machine building, material handling as well as consumer packaging and food & beverage applications, the IP67 I/O modules provide features such as metal casing, full potting, vibration and shock resistance and meet all the required industrial standards.

The robust I/O modules guarantee the highest functional availability of machines and equipment with comprehensive diagnostics, easy, fast and flexible installation and operation characteristics for decentralized or economical wiring solutions.

The Powerful Solution for High Data Transfer Rates

Data connectors provide reliably secure data transmission rates up to 10 Gbit/s even in harsh industrial environments and use proper shielding concepts to deliver high EMC resistance.

Where reliable interfaces between control systems in the control cabinet and bus I/O modules are required the shielded field attachable and M12 connectors are suitable. This applies for example to mechanical and plant engineering, material handling and packaging and public transport systems.

M12 Right-angled Male and Female Connectors with 360 Degree Shielding

Automated systems in food processing, packaging, machine tool engineering, automobile manufacturing and many other industries work at extremely high speeds and are often subject to strong shock and vibrations. To maximize process reliability and system availability the use of robust designed connectors will assure optimal secure data transmissions. Where there is a potential risk of cable breaks or installation space is limited, the latest 360° shielded male and female right angle connectors is recommended. The rugged design of the 360° shielded M12 connectors withstands high pressure and steam cleaners and is extremely resistant to vibration.



A wide range of applications, spacesaving designs, and technical know-how for every environment.

Compact I/O Modules from Lumberg Automation



Enjoy the benefits of our experience and innovations.

General Information

The growing level of automation in all areas of manufacturing requires increasingly complex wiring and cabling techniques. Apart from the high costs of assembly, service problems are an inevitable consequence of complex and obscure wiring.

Passive and active I/O distribution boxes are used to solve this problem while optimizing system performance and troubleshooting. There are two alternative solutions to on-machine wiring. We define these as passive and active wiring systems. Passive wiring systems combine signals from sensors and actuators and transfer those signals via a single common control cable. Active wiring systems are more intelligent and the connection to the control cabinet is made by a standard fieldbus system. There are a number of fieldbus systems in place today. Lumberg Automation supports PROFIBUS, DeviceNet™, CANopen®, Interbus, AS-Interface as well as Ethernet (Modbus TCP), EtherNet/IP and PROFINET.

The conventional wiring of these signals from the sensor/actuator to the control cabinet can be replaced by on-machine passive distribution boxes or active or passive I/O modules. By using an on machine distributed I/O system, significant reductions in installation and maintenance time can be achieved and the overall performance of the system is improved. To ensure signal quality, industry standard M8 and M12 rounded over molded quick-disconnect connectors are used to complete the wiring installation.

Overall, this means a considerable reduction in ordering and storage of replacement parts as well as reducing the time it takes to plan, configuring and commission machines and automated systems.

Customer Benefits

- Increased efficiency: everything from a single source, when different systems are being used.
- Cost savings: extremely robust design with IP67 protection class, the modules can be installed directly on the machine to minimize traditional field wiring techniques.
- High operational reliability and system availability: robust design – shock and vibration proof.



Product Features

- Protection against dust and liquids: because the distribution boxes and I/O modules offer IP67 protection class, installation can be performed directly on site near the actuators and sensors and additional protection by means of a control cabinet are no longer required.
- Vibration and shock resistance: an additional advantage of the distribution boxes and I/O modules is the high level of vibration resistance, while providing increased security of the electrical wiring.
- Wide range:
 - Active, passive, modular distribution boxes and I/O modules with between 4 and 16 slots
 - Different housing variants, in plastic, stainless steel or die-cast zinc depending on the ambient conditions
 - Various configurations: depending on the space requirements, small (LioN-S, LioN-Link, ASB-S) or compact (LioN-M, LioN-R, LioN-Classic, ASB-Classic, ASB-R) versions with M8 or M12 slots (one or two-row)

Applications

Mechanical engineering

Connection of sensors and actuators, for example, magnetic valves (communication between sensors/actuators and control level).

- Metal processing machines
- Material handling and robotics
- Food & beverage (packaging machines, handling, transport)
- Woodworking machines and equipment, etc.

Automotive

- Engine and transmission manufacturing
- Welding robots (bodywork)
- Assembly/handling



**Active I/O Modules and Stand-Alone Versions
(LioN-P, LioN-S-, LioN-M-, LioN-R-, LioN-Classic Series)**



General Information

In order to ensure high availability of machines and systems, I/O modules installed in harsh industrial environments must be able to meet the highest electro-mechanical demands. The LioN Series of distribution boxes and I/O modules use materials and housing encapsulated techniques designed to protect the internal electronics.

LioN-P

The LioN-Power active I/O modules are an all-in-one, multiprotocol solution that meets PROFINET, EtherNet/IP and EtherCAT protocols for industrial automation settings. Until now, separate PROFINET, EtherNet/IP, and EtherCAT modules were required – three products with very different power components. Now the family of LioN-Power active I/O modules can facilitate all three protocols within one multiprotocol I/O module.

LioN-R

The new rugged I/O modules in the LioN series (LioN-R) have a robust design and add a high level of functionality. They provide a secure connection of actuators and sensors to the control cabinet, while operating under extreme environmental conditions.

- The fully enclosed metal housing guarantees optimal mechanical stability and maximum protection against the most adverse environmental conditions.
- Galvanic isolation between sensors and actuators and the Ethernet/field bus protocol, together with short-circuit proof outputs and the "easy diagnostics" concept, ensures maximum availability of machines and systems.

LioN-S and -M

LioN-S: Because of their compact construction, the LioN-S modules with M8 connections are ideally suited for systems where space is limited. In addition, the modules provide two types of mounting mechanisms – making it easy for front or side mount on the machines profile rails.

LioN-M: The convenient and vibration-proof I/O modules with M12 connection technology support PROFINET, Ethernet/IP, PROFIBUS and DeviceNet™. In addition, the universal module (LioN-S or LioN-M) makes it easy to configure the I/O channels. Each individual channel can be used as either an input or an output. This offers excellent flexibility for planning or for making changes during commissioning and subsequent upgrades.

- Simple planning and cost-effective storage of spare parts with universal I/O functionality.
- Small requirement for devices offering various installation possibilities.
- Low net-weight – ideally suitable for mounting and handling applications.
- Fast commissioning, through simple and comprehensive diagnostics.

LioN-Classic

The LioN-Classic modules are available in a robust molded plastic housing, and available for example, with M23 connections for hybrid cables (power supply and bus lines in a single cable).

- Excellent reliability even under harsh environmental conditions – proven for decades.
- Wide choice of options for the different field bus protocols.





Customer Benefits

- Cost savings/profit increases
- Simple and fast installation and maintenance: the time required is minimized since the signals are bundled and transmitted via the field bus/Ethernet
- Flexibility: all standard field bus systems are supported
- Reliability: fail-safe modules with long service life (long-term stability)
- Rapid sourcing of spare parts, thanks to a large global sales network

Product Features

- Environmental temperature depending on type from $-25\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$
- Materials (depending on type of module)
 - Housing: die-cast zinc, V4A, PBT or PUR
 - Inserts: PA
 - Contacts: CuZn, pre-nickel and gold plated
- Mechanical data
 - Protection class IP67/IP68/IP69K
- Electrical data
 - Nominal current at $+40\text{ }^{\circ}\text{C}$: 0.5 A to 2 A per channel and up to 16 A per module
 - Nominal voltage: 18 to 30 V DC

We offer you the best solution for every requirement.



LioN-Link Series



The LioN-Link decentralized I/O fieldbus system can create line topologies up to 100 meters in length. The system consists of bus coupler modules, which function as the interface to higher-level fieldbus systems such as ProfiNet, Profibus, I/O Link, CANopen® and DeviceNet, and protocol independent I/O modules. Engineers only need to make minimal changes to the hardware if their end customers use different transmission protocols for the connection of systems to their communications network. Only the BusHead requires an address setting, the fieldbus independent I/O modules do not require commissioning.

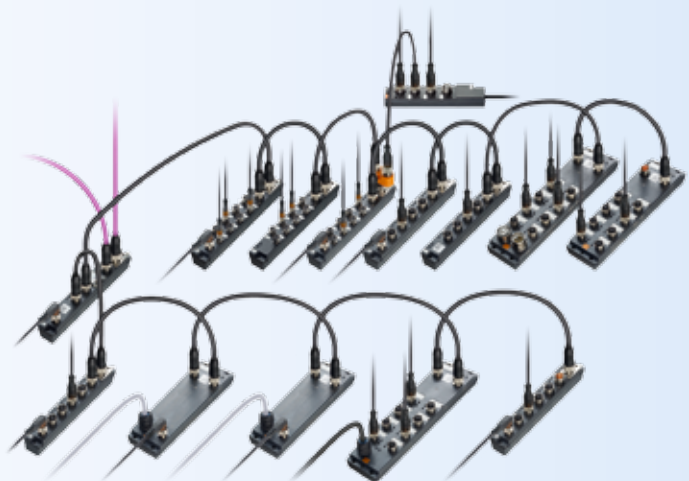
Key features include:

- Bus-independent I/O modules ensure a high degree of flexibility and reduce storage requirements
- Space-saving, light-weight modules ensure a wide range of applications
- Simplified planning due to universal I/O modules
- Economical solution – up to 480 I/Os at a single bus coupler
- Quick availability with the use of standardized wiring components
- Easy and safe installation thanks to color-coded sockets

- High degree of reliability as there are no line terminators
- Simple start-up and extension of the system, because the modules operate without manual addressing

Technical data:

- Ambient temperature from -10 °C/+60 °C
- Materials (depending on type of module)
 - Housing: PBT
 - Inserts: PA
 - Contacts: CuZn, pre-nickel sub-surface and 0.8 micron gold plated
- Mechanical data
 - Protection class: IP67
- Electrical data
 - Nominal current at +40 °C: 0.5 A to 2 A per channel and up to 9 A per module
 - Nominal voltage: 19-30 VDC
- Connector types:
 - M8
 - M12
 - Multi-pole interface
- Module variants
 - 8 and 16-way digital universal module with inputs and outputs
 - 8 and 16-way digital input module
 - 4-way analog input module 0-10 V
 - 4-way analog input module 0-20 mA
 - 4-way IO-Link-Master
 - 8-way-Input/4-way Output Motion Module





Connectors and Cables

The sensor connectors and cables from Lumberg Automation and Hirschmann feature an exceptional variety of available standard and special types. The portfolio provides a wide range of M5, M8, M12, M23 and 7/8" plug-in connectors for each application including single- and double-ended, male and female straight or right angle versions and manifold cable options and lengths.

For EMC-sensitive applications, we recommend using shielded connectors and cables that effectively suppress both interference radiation from external sources and local emissions. Shielded connector assemblies and cables are especially necessary for high-speed data transmissions and sensitive signals.

All connectors rated IP67 and higher offer particularly good protection against penetration by dirt or moisture. Continual testing of their compatibility with chemicals, coolants, lubricants and cleaning materials mean that these connector assemblies always comply with the latest standards.

Flexible Wiring with Cordsets for Actuators and Sensors

These actuator and sensor cordsets are preassembled and are traditionally single-ended cordset assemblies. One end has a connector (M5, M8, M12, M23 or 7/8") and the other end has open leads. These connector assemblies with permanently over-molded cables on one side are used preferably by OEM customers to connect to an end effector (sensor/actuator) to a distribution box. The open end of the connector cable facilitates flexible wiring to the end device directly or via a flexible field attachable connector or to the control cabinet.

Secure and Convenient Cabling with Ready-made Cordsets

These actuator and sensor cordsets have preassembled connector fitted on both ends. Cordsets with permanently overmolded cables are used to connect a sensor or actuator to a distributor or I/O module. The product range includes cordsets with M8, M12, and M23 connectors plus pressure switches and valve plugs of types A, B and C.

Easy Connection of Equipment Using Receptacle Connector Assemblies

A variety of receptacle connectors is available for the construction of sensors, actuators and other devices. Receptacle connectors for use as panel feed through are easy and safe to install by screwing to the front or rear of the cabinet.





Connectors and Cables

Maximum Flexibility: Connector Assemblies You Can Create Yourself

In cases where it is difficult to plan a wiring installation because conditions are unclear or subject to change, you can use cable connections coupled with easy-to-assemble connectors for additional planning scope and flexibility. Different cable lengths can be implemented as required and connectors can be individually adapted to suit the situation. The flexibility gained in this situation can enable users to save both time and money.

Efficient Wiring with Two-way Distributors/T-Splitters

Whether as ready-to-plug-in two-way connection cables with easy-to-assemble Duo connector or as T-splitters: these connector assemblies are used to distribute or merge signals in order to minimize the necessary amount of wiring. In combination with I/O modules or actuator/sensor boxes they also save a great deal of space when a large number of I/O points need to be connected within a limited assembly area.

In the fieldbuses area, T-splitters facilitate the safe connection of bus subscribers to the bus line: the connection is either made directly, by screwing T-splitters to the bus line, or indirectly as a drop line to connect the bus nodes to the bus line. The bus subscribers' power is fed in via a T-splitter and passed on to each subscriber in turn, which not only speeds up the installation process but also ensures that the wiring is safe.

Key features include:

- Male and female
- Available with 2 to 19 pins
- A-, B-, U-, D- and X-coded
- Straight and angled variants
- For voltages up to 250 V (M12, M23, 7/8") or 60 V (M5, M8) and currents up to 12 A (7/8"), 10 A (M23), 4 A (M8, M12) or 1 A (M5)
- Available as field-attachable connectors or with overmolded cables as well as T-splitters
- Cable variants in many lengths with and without LED function indicator
- Numerous connection possibilities – mated clamp terminals, cage clamp terminals and quick connection technologies
- Compact method of construction with rounded edges
- Protection class up to IP65, IP67, IP68 and IP69K



GDM-Series

Rectangular connectors of the GDM series for hydraulic, pneumatic and electro-magnetic actuators as well as sensors fulfill the demands of hard practical daily work in every form (Types A/B/C).

Key features include:

- For voltages up to 400 V (Type A), 250 V (Types B, C) and currents up to 16 A (Types A, B)/6 A (Type C)
- Available as field-attachable version or with overmolded cables as well as adapters
- Easy assembly thanks to large cable connection space
- Uncompromising safety: International approvals VDE, UL, CSA, GL
- Broad range of applications with construction of Type A (DIN model EN 175301-803) as well as Type B and C (DIN version EN 175301-803 and industrial version)
- Numerous connection possibilities due to patent-protected combination terminal for connecting stranded wires, fork-type eyelets or cable lugs

Technical data:

- Number of pins: 2, 2 + PE, 2 + 2 PE, 3, 3 + PE
- Cable gland: M16, M20, PG09, PG11, 1/2" NPTF, 1/2"G (ISO 228)
- Cable diameter/cross-section: 4.5 to 10 mm (max. 1.5 mm²)
- Rated voltage: max. 400 V AC/DC
- Rated current: max. 16 A
- Protection class: up to IP69K
- Temperature range: -40 °C up to +125 °C
- Approvals: VDE, SEV, UL, CSA, GL and other approvals on request



Hirschmann GDMF Valve Connectors – Low-height Space-saving Design with Proven Combi-Contact

The new generation of Hirschmann GDMF field attachable rectangular valve connectors is a strong addition to our already broad product portfolio. The proven technology is now brought to market in an extremely flat and ergonomic design, which meets the ever growing demand for highly compact rectangular connectors.

With a height of just 26 mm, the rectangular connectors in protection class IP65/IP67 have a perfect fit in any given application. To guarantee the highest requirements of resistance to vibration and shock, the new GDMF range also features the patented combi-contact known from the proven GDM series. The contact is designed for a wide range of cable gauges up to 1.5 mm² with diameters from 4.5 to 8 mm (in a UL approved version from 4.0 to 6.7 mm).



CA and CM-Series

The CA and CM series are utilized in the application areas of hydraulics, pneumatics, device and machine construction as well as in traffic control technology. One relatively new application, compared to the others, is Photovoltaic Technology.

Key features include:

- Available as 4 and 7 pin variants (including PE) for CA series and 3 to 17 pin variants (partly including PE) for the CM series
- Reliable transmission properties even under high stress such as vibrations
- High degree of resistance to external influences
- Especially easy installation due to few components
- CM series: compatible to metal connectors according to MIL-C-5015 and VG 95342
- Protection class up to IP67



NR-Series

The NR series is particularly versatile in power and control signal connections. It can be used even under the most extreme conditions, for instance in installations subject to strong vibrations.

Key features include:

- Available as 7 and 12 pin variants (including PE)
- For voltages up to 250 V and currents up to 10 A
- Selection of plastic or metal housing for permanent solutions
- High degree of transmission safety due to continuous shielding against electro-magnetic radiation
- Protection class IP65



G-Series

The G series is designed for the harsh environment conditions of small drives, controls and sensors as well as for underground construction where small dimensions are required. In addition, it is suitable for use in actuators, sensing and power supplies.

Key features include:

- Available in 2 to 17 pin variants (partly including PE)
- For voltages up to 250 V and currents up to 10 A
- Compact plug design with low space requirement
- Available as field-attachable or molded cable connector, as well as appliance connector
- Protection class IP65

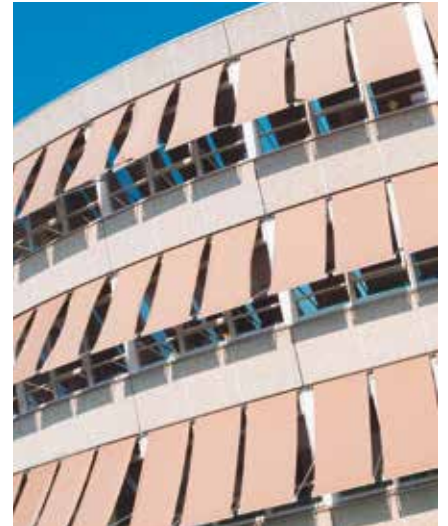


ST-Series

The ST series, with its robust and compact power connector assemblies, is eminently suitable for power supply and signal transmission in industrial installations and mechanical engineering. When it comes to sunlight protection these connector assemblies are the de-facto market standard for the motors that operate blinds and awnings. But the outstanding features of these ST connector assemblies mean that they are also frequently used in many other fields, such as power supplies for injection molding machines, medical applications and industrial lighting systems.

Key features include:

- Available as 3 to 6 pin variants (including PE)
- For voltages up to 400 V and currents up to 16 A
- Dust and spray water protection for high resistance
- Approved by VDE and UL for worldwide application
- Additional safety due to metal bracket for security against loosening
- Protection class up to IP54



**Connectivity Center:
Your Connection to Custom-made Solutions**

Customer Specific
Developments in
Record Time.

Customer Specific Economic Solutions

In a highly competitive environment, it is crucial to have reliable partners who are able to add value to your business. When it comes to signal transmissions, Belden is the No. 1 solutions provider. We understand your requirements, your specific challenges and targets to see how effective signal transmission solutions can push you ahead of the competition.

Always Stay Ahead – with Belden

Every month the Belden Connectivity Center delivers approximately 150 customized solutions for customers worldwide – some within just 48 hours, hardly ever longer than two weeks.



Wide Range of Integrated Applications, Systems and Solutions

Development, production and implementation of intelligent wiring solutions from a single source for all applications in industrial automation technology to complete wiring concepts.

Closer to Your Needs

When it comes to complexity reduction, performance increase or optimization of return on investment, Belden is your strong partner with a long history of success. No matter if technical design, material selection, production processes – all is tailored to the high quality requirements of our customers.



Comprehensive Know-how

Through the combined strength of three powerful brands, we are able to provide complete signal transmission solutions from a single source, with worldwide market access and delivery.



Contact

Phone: +49 2355 5044-123
Email: ICOS.Connectivity@belden.com
http://www.lumberg-automation.de/en/Lumberg_Automation/connectivity-center





Beldens Solution Concept: **CORE**

Add Value to Your Business. Challenge us.

The signal transmission is the basis for a successful communication infrastructure. Belden **CORE** connects **C**onnectivity and **R**eliability to assist our customers with the right products, solutions and services.

First Class Technical Consulting and Comprehensive Solution Presentation for Your Investments.

- **Know-how** in creating robust/pluggable connections
- **Know-how** in the area of synthetic materials/plastics and processing
- **Know-how** in cable development and production
- **Know-how** in interface management
- **Know-how** in miniaturization
- **Know-how** in the area of modern bus/ethernet technologies
- **Know-how** in the field of tool construction and modification

Versatile and Imaginative Solutions

Food processing machinery makes particularly high demands on its connectors and cables. The use of materials such as V4A stainless steel and PVC enables connector assemblies and distributors to fulfill the extremely strict hygienic requirements. Our solutions for this sector are also remarkable for their extremely high resistance to cleaning agents, aggressive chemicals and high-pressure blasting. Our knowledge of the materials that need to be used in such environments contributes to the extremely high availability of our equipment and installations for this sector.

To fulfill the special requirements of mobile sensors, which are fully integrated in hydraulic cylinders in order to provide reliable position feedback, we have developed a tool-less connector system (contact holders + flange housing) that provides for simple "click-on assembly". This saves handling time and brings cost advantages for manufacturers of hydraulic cylinders.

For colored accentuation and illumination of outdoor glass frontages we have developed a system of connector assemblies and distributors with an integrated LED light source. Customers can easily assemble these units on site using the contact interfaces incorporated in the pane holders, which bundle the signals using proven M8 technology and make it unnecessary to wire the light sources individually.



US Dimension Units – Comparison with Metric Dimensions

In North American markets, cable cross-sections are usually stated as AWG (American Wire Gauge) sizes. You will find these units in the relevant standards for designing cables by current rating. Please note that exact correspondences between the two systems do not exist as the specifications of the two systems differ in terms of the cross-section and conductor resistance. The following table can be used to help you when selecting the correct nominal cross-section:

Metric Nominal Cross-section Required* (mm ²)	North American Size that Meets the Electrical Requirements* (AWG)	Geometric Conversion (mm ²)
6	10	5.26
	11	4.17
4	12	3.31
	13	2.62
2.5	14	2.08
	15	1.65
1.5	16	1.31
	17	1.04
1	18	0.82
	19	0.65
0.75	20	0.52
	21	0.41
0.5	22	0.33
	23	0.26
0.34	24	0.20
	25	0.16
0-14	26	0.13

* Please note that exact correspondence between the two systems do not exist as the specifications of the two systems differ in terms of the cross-section and conductor resistance. The above table can be used to help when selecting the correct nominal cross-section.













Get the complete business solution for your network.





M12 and M8 Connectors – Coding Overview

Currently we are carrying the following codings in our portfolio:

Image Coding	Description
	M12 A-coding: Available with 3, 4, 5, 8 and 12 poles
	M12 B-coding: Available with 4 and 5 poles
	M12 C-coding: Available with 3, 4 and 5 poles
	M12 D-coding: Available with 4 poles
	M12 X-coding: Available with 8 poles
	M12 L-coding: Available with 5 poles
	M12 T-coding: Available with 4 poles
	M12 K-coding: Available with 5 poles
	M12 S-coding: Available with 4 poles
	M12 Y-coding: Available with 4 + 2 x 2 poles
	M8 B-coding: Available with 5 poles
	M8 A-coding: Available with 8 poles














M12 and M8 connectors are coded in various ways to ensure protection against reversal polarity and to fulfill customers' demands in terms of international standard for field bus communication. Different connector codings are designed with a notch or a peg in the contact bearer.

Explanation of Product Characteristics



Hirschmann and Lumberg Automation: partners that understand your industry.



Icon	Characteristics
	UL-approved
	CSA-approved
	VDE-approved
	Suitable for areas with high hygiene and cleaning requirements
	Suitable for railway applications
	Very good resistance to oils, coolants, lubricants as well as emulsions
	Very good vibration and shock resistance
	Drag chain sustainability
	Very good resistance to flying welding sparks (e.g. unfinished constructions)
	Very good resistance to acids, lyes and chemical cleaning agents
	Very good electromagnetic resistance (EMC) and shielded systems
	Suitable for robot applications (resistance to torsions)
	Very good UV resistance



I/O Modules Active – Stand-Alone: LioN-Power Distributed Control Unit (DCU)



Be certain. Belden.

Distributed Control Unit

The LioN-Power DCUs perform a range of functions – from simple logical operations to solving more complex control problems. The various models available can either be operated as a standalone controller or in collaboration with a central PLC to relieve the workload on the PLC and concurrently reduce bus communication.

The LioN-Power DCU models are based on two different programming platforms:

- LDMicro7, a free software that starts with ladder logic
- CODESYS, a development environment for programming controller applications according to the international industrial standard IEC 61131-3

The application program can simply be uploaded via the embedded webserver of the DCU. For field installations comprised of numerous DCUs, a platform for application software updates and management via a central FTP-server is currently under development.

The LDMicrobased LioN-Power DCU comes with eight physical digital inputs and eight digital outputs, whereas the CODESYS-based LioN-Power DCU has eight IO-Link ports that can also serve as digital inputs and outputs. A DCU version with additional serial RS232 connection will follow in early 2017.










EtherNet/IP™

EtherCAT®



LioN-Power Distributed Control Unit – LDmicro (Ladder Logic)**Technical Information**

Product Description	
Type	0980 ESL 393-121-DCU1
	<div style="display: flex; align-items: center; justify-content: space-between;"> <div style="text-align: center;">   </div> <div style="text-align: right;">      </div> </div> <p style="text-align: right; font-weight: bold; margin-top: 10px;">LDmicro</p>
Description	LioN-P Distributed Control Unit, LDmicro Programmable (Ladder), Multi-protocol (PROFINET, EtherNet/IP or EtherCAT device), 8 digital input and 8 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles
Order No.	934879005
Technical Data	
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)
Weight	500 g
Housing Material	Metal, Zinc Die-cast
Control System	
Programming Tool	Ldmicro: Ladder programming tool (LAD)
Programming Language	LAD: Ladder Logic
Program Deployment	via Webservice
Realtime Clock	No
Performance	min. 10 ms
Program Memory	max. 99 Rungs/max. 99 Bit Variables/max. 99 Integer Variables
Flash Memory	16 MB
Persistent Memory	No
Processor	200 MHz RISC CPU
Operation Modes	Standalone, Slave/Device, Mixed
Communication Interfaces	Ethernet/TCP
Webservice	Integrated
Bus System	
Protocol	PROFINET/EtherNet/IP/EtherCAT I/O Device
Connection	M12 LAN connection, 4-poles, D-coded
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex
Rotary Address Switches	Yes, 3x
Power Supply	
Nominal Voltage	24 V DC (SELV/PELV)
Nominal Voltage Range	18 to 30 V DC
Connection	M12, L-coded, 5-poles
Current Carrying Capacity of Connector	16 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)
On-Board Input Channels	
Number of Channels	8
Connection	M12, 5-poles, A-coded
Channel Type	Type 3 acc. to IEC 61131-2
Nominal Voltage	24 V DC via US (system power supply)
Sensor Current Supply	200 mA per Port
Sensor Type	PNP
On-Board Output Channels	
Number of Channels	8
Connection	M12, 5-poles, A-coded
Channel Type	p-switching
Nominal Voltage	24 V DC via Uaux (actuator power supply)
Output Current per Channel	max. 2 A
Output Current per Module	max. 9 A
Protective Circuit	Electronically: Overload protection, short-circuit protection
Galvanically Isolated	Yes




Diagnostic Indication 0980 ESL 393-121-DCU1

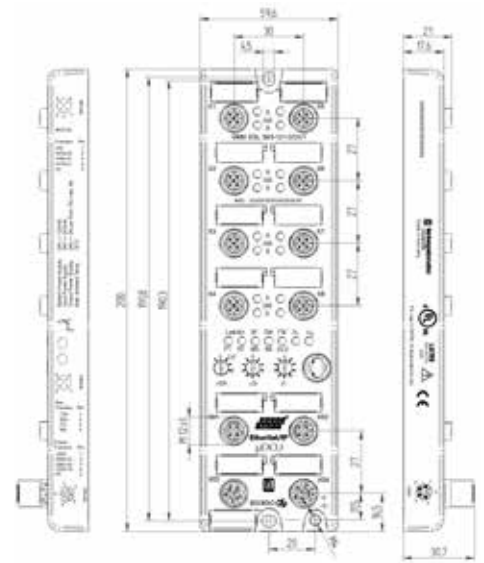
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address

EtherCAT

RUN	Green	Device is in state OPERATIONAL
	Green blinking	Device is in state PRE-OPERATIONAL
	Green single flash	Device is in state SAFE-OPERATIONAL
	Green flickerng	Device is in state BOOTSTRAP
	Off	Device is in state INIT
ERR	Red	"An critical communication or application controller error has occurred "
	Red double flash	An application watchdog timeout has occurred.
	Red single flash	"Slave device application has changed the EtherCAT state autonomously, due to local error"
	Red blinking	General Configuration Error
	Red flickering	Booting Error was detected
FM	Blue/red blinking	Force mode is activated
	Red blinking	Failsafe is activated
	Off	Force mode not active/DCU program passed
DCU	Blue blinking	Device is operating in DCU mode (RUN)
	Blue	Device has stopped DCU mode (STOP)
	Red	Device has detected a program error (ERROR)
	Off	Device is operating in I/O mode (OFF)
Us	Green	Voltage 19 V <= Us <= 30 V
	Red	Us Voltage < 19 V or Us > 30 V
UL	Green	Voltage 19 V <= UL <= 30 V
	Red	UL Voltage < 19 V or UL > 30 V

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	M12 LAN Connection, D-coded
 <p>1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = FE</p>	 <p>1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE</p>	 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p>



0980 ESL 393-121-DCU1





I/O Modules Active – Stand-Alone: LioN-Power Multi-protocol



Be certain. Belden.

Multi-protocol

Lumberg Automation a Belden Brand is offering the first IP67 Multi-protocol I/O Modules that combine different Ethernet protocols in just one device for M12 Power and 7/8" Power Connections. The Multi-protocol technology for I/O Modules makes it possible to use such devices in different networks by just selecting the protocol via rotary coding switches.

The Lumberg Automation Multi-protocol modules support PROFINET and EtherNet/IP. EtherCAT will be integrated in 2016 as the third supported Ethernet protocol. The modules are available as correct 16DI, 16DO and 8DI/8DO. Multi-protocol IO-Link Masters will be available in 2016.

Multi-protocol modules support the same features as Single Protocol modules such as Fast Startup (FSU), Quick Connect, and many more.

All modules have an integrated 3-port switch which makes it possible to use them in a line topology and reduce the amount of needed switches. Other cost saving factors of Multi-protocol modules is the reduction of required device variants, identical planing of machines for different protocols and easier device exchange.

















EtherNet/IP™








EtherCAT®

LioN-Power Multi-protocol – 16 Digital Inputs, M12 L-coded or 7/8" Power Supply Connection, PROFINET, EtherNet/IP or EtherCAT

Technical Information

Product Description		
Type	0980 ESL 391-121	0980 ESL 391-111
	      	      
Description	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 16 digital input channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 16 digital input channels, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934879001	934882001
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET/EtherNet/IP/EtherCAT I/O Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	16	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	

Pin Assignment

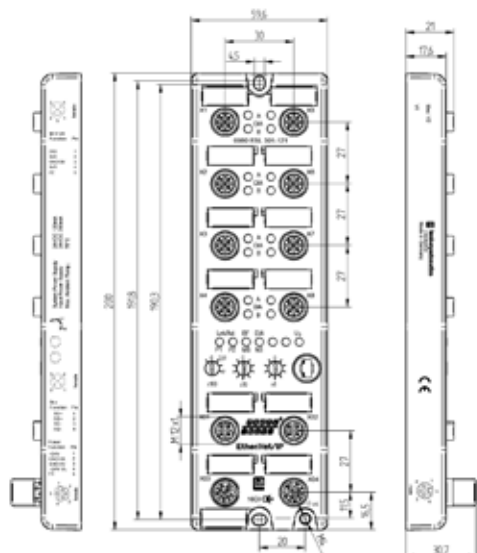
M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 LAN Connection, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE 	 <ul style="list-style-type: none"> 1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-
			

Bit Assignment

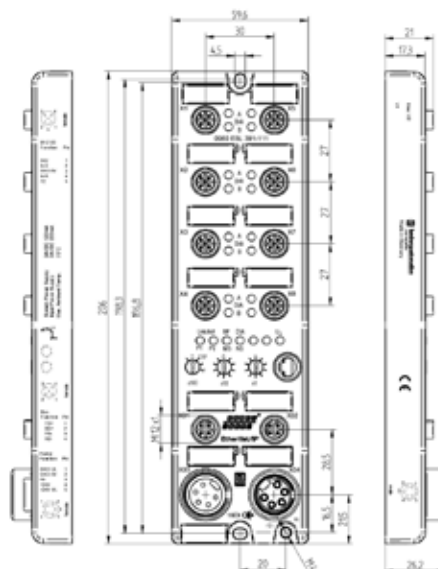
Bit	7	6	5	4	3	2	1	0
M12 Input 16DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication 0980 ESL 391-121 and 0980 ESL 391-111

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
PROFINET		
BF	Red Off	Bus error, no data exchange with I/O controller No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
EtherNet/IP		
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
EtherCAT		
RUN	Green	Device is in state OPERATIONAL
	Green blinking	Device is in state PRE-OPERATIONAL
	Green single flash	Device is in state SAFE-OPERATIONAL
	Green flickerng	Device is in state BOOTSTRAP
	Off	Device is in state INIT
ERR	Red	"An critical communication or application controller error has occurred "
	Red double flash	An application watchdog timeout has occurred.
	Red single flash	"Slave device application has changed the EtherCAT state autonomously, due to local error"
	Red blinking	General Configuration Error
	Red flickering	Booting Error was detected
	Off	No error
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
	Red	$U_s \text{ Voltage} < 19\text{ V}$ or $U_s > 30\text{ V}$



0980 ESL 391-121

















0980 ESL 391-111










The application of these products in harsh environments should always be checked before use. Technical modifications reserved.

LioN-Power Multi-protocol – 16 Digital Outputs, M12 L-coded or 7/8" Power Supply Connection, PROFINET, EtherNet/IP or EtherCAT

Technical Information

Product Description		
Type	0980 ESL 392-121	0980 ESL 392-111
	      	      
Description	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 16 digital outputs channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 16 digital outputs channels, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934879002	934882002
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET/EtherNet/IP/EtherCAT I/O Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Output Channels		
Number of Channels	16	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	

Pin Assignment

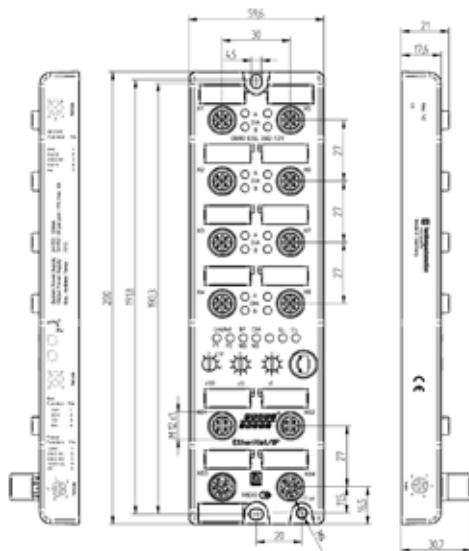
M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 LAN Connection, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE 	 <ul style="list-style-type: none"> 1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-
			

Bit Assignment

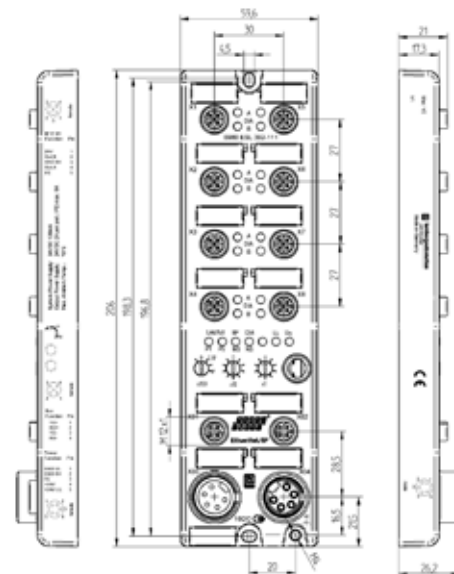
Bit	7	6	5	4	3	2	1	0
M12 Output 16DO								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication 0980 ESL 392-121 and 0980 ESL 392-111

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
PROFINET		
BF	Red Off	Bus error, no data exchange with I/O controller No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
EtherNet/IP		
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
EtherCAT		
RUN	Green	Device is in state OPERATIONAL
	Green blinking	Device is in state PRE-OPERATIONAL
	Green single flash	Device is in state SAFE-OPERATIONAL
	Green flickerng	Device is in state BOOTSTRAP
	Off	Device is in state INIT
ERR	Red	"An critical communication or application controller error has occurred"
	Red double flash	An application watchdog timeout has occurred.
	Red single flash	"Slave device application has changed the EtherCAT state autonomously, due to local error"
	Red blinking	General Configuration Error
	Red flickering	Bootng Error was detected
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
	Red	$U_s \text{ Voltage} < 19\text{ V}$ or $U_s > 30\text{ V}$



0980 ESL 392-121

















0980 ESL 392-111







The application of these products in harsh environments should always be checked before use. Technical modifications reserved.

LioN-Power Multi-protocol – 8 Digital Inputs / 8 Digital Outputs, M12 L-coded or 7/8" Power Supply Connection, PROFINET, EtherNet/IP or EtherCAT

Technical Information

Product Description		
Type	0980 ESL 393-121	0980 ESL 393-111
	      	      
Description	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 8 digital input and 8 digital output channels with galvanic isolation M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 8 digital input and 8 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934879003	934882003
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET/EtherNet/IP/EtherCAT I/O Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	8	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	
Output Channels		
Number of Channels	8	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	

Pin Assignment

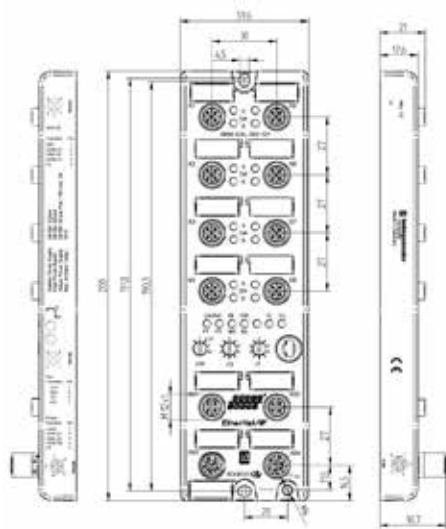
M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 LAN Connection, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE 	 <ul style="list-style-type: none"> 1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-

Bit Assignment

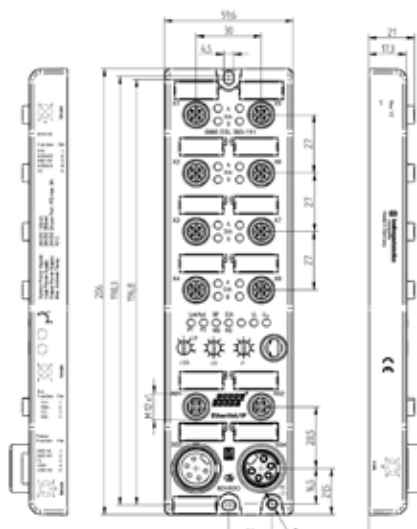
Bit	7	6	5	4	3	2	1	0
M12 Input 8DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output 8DO								
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication 0980 ESL 393-121 and 0980 ESL 393-111

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
PROFINET		
BF	Red Off	Bus error, no data exchange with I/O controller No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
EtherNet/IP		
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
EtherCAT		
RUN	Green	Device is in state OPERATIONAL
	Green blinking	Device is in state PRE-OPERATIONAL
	Green single flash	Device is in state SAFE-OPERATIONAL
	Green flickerng	Device is in state BOOTSTRAP
	Off	Device is in state INIT
ERR	Red	"An critical communication or application controller error has occurred "
	Red double flash	An application watchdog timeout has occurred.
	Red single flash	"Slave device application has changed the EtherCAT state autonomously, due to local error"
	Red blinking	General Configuration Error
	Red flickering	Booting Error was detected
	Off	No error
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
	Red	$U_s \text{ Voltage} < 19\text{ V}$ or $U_s > 30\text{ V}$
UL	Green	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$
	Red	$U_L \text{ Voltage} < 19\text{ V}$ or $U_L > 30\text{ V}$



0980 ESL 393-121
















0980 ESL 393-111







The application of these products in harsh environments should always be checked before use. Technical modifications reserved.

LioN-Power Multi-protocol – 16 Digital Inputs/Outputs (Universal), M12 L-coded or 7/8" Power Supply Connection, PROFINET, EtherNet/IP or EtherCAT

Technical Information

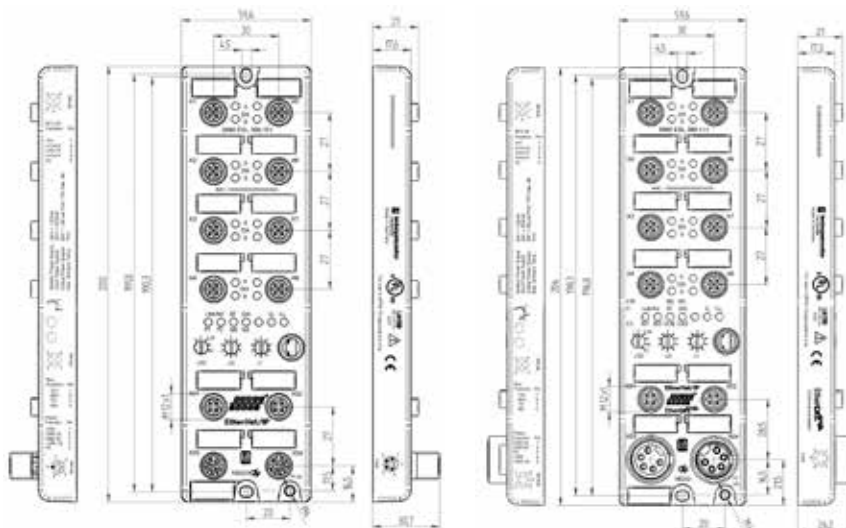
Product Description		
Type	0980 ESL 390-121	0980 ESL 390-111
	      	      
Description	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 16 digital in-/output channels, channels can be used universally as inputs or outputs, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P Multi-protocol module, PROFINET, EtherNet/IP or EtherCAT device, 16 digital in-/output channels, channels can be used universally as inputs or outputs, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934879007	934882007
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET/EtherNet/IP/EtherCAT I/O Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	max. 16	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	
Output Channels		
Number of Channels	max. 16	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 LAN Connection, D-coded
 <p>1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = FE</p>	 <p>1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE</p>	 <p>1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL</p>	 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p>

Diagnostic Indication 0980 ESL 390-121 and 0980 ESL 390-111

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
PROFINET		
BF	Red Off	Bus error, no data exchange with I/O controller No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
EtherNet/IP		
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
EtherCAT		
RUN	Green	Device is in state OPERATIONAL
	Green blinking	Device is in state PRE-OPERATIONAL
	Green single flash	Device is in state SAFE-OPERATIONAL
	Green flickering	Device is in state BOOTSTRAP
	Off	Device is in state INIT
ERR	Red	"An critical communication or application controller error has occurred "
	Red double flash	An application watchdog timeout has occurred.
	Red single flash	"Slave device application has changed the EtherCAT state autonomously, due to local error"
	Red blinking	General Configuration Error
	Red flickering	Booting Error was detected
	Off	No error
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
	Red	U_s Voltage $< 19\text{ V}$ or $U_s > 30\text{ V}$
UL	Green	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$
	Red	U_L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$



0980 ESL 390-121




0980 ESL 390-111



The application of these products in harsh environments should always be checked before use.
Technical modifications reserved.



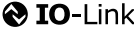





Multi-protocol – IO-Link Masters (60 mm, M12 Power), 4 Digital Inputs, 8 IO-Link Channels with M12 L-Coded Power Supply Connection, PROFINET or EtherNet/IP

Technical Information

Product Description	
Type	0980 ESL 399-121
	<div style="display: flex; align-items: center; justify-content: space-between;"> <div style="background-color: red; color: white; padding: 2px 5px; font-weight: bold;">NEW!</div> <div style="text-align: right;">  </div> </div> <div style="text-align: center; margin-top: 10px;">  </div> <div style="text-align: right; margin-top: 10px;">  </div>
Description	LioN-P Multi-protocol module, PROFINET or EtherNet/IP device, 4 digital input channels, 8 IO-Link channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles
Order No.	934879004
Technical Data	
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)
Weight	500 g
Housing Material	Metal, Zinc Die-cast
Bus System	
Protocol	PROFINET IO Device/EtherNet/IP IO Device
Connection	M12 LAN connection, 4-poles, D-coded
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex
Rotary Address Switches	No
Power Supply	
Nominal Voltage	24 V DC (SELV/PELV)
Nominal Voltage Range	18 to 30 V DC
Connection	M12, L-coded, 5-poles
Current Carrying Capacity of Connector	16 A
Current Consumption (typ.)	180 mA (+/-20% at 24 V DC)
IO-Link Master Channels	
Number of Channels	8
Connection	M12, 5-poles, A-coded
Number of A Ports (IOL)	4 (X1 to X4)
Number of B Ports (IOL)	4 (X5 to X8)
Nominal Voltage (IOL)	24 V DC via US (system power supply)
Nominal Current C/Q (Pin 4)	500 mA
Nominal Current L+/L- (Pin 1 and 3)	500 mA
Nominal Current Uaux (Pin 2, B Ports)	max. 2 A per port
Input Channels	
Number of Channels	max. 12, 4 x (Pin 2, fixed) + 8 x (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	Type 1 acc. to IEC 61131-2
Nominal Voltage	24 V DC via US (system power supply)
Sensor Current Supply	500 mA per Port via L+/L-
Sensor Type	PNP
Output Channels	
Number of Channels	max. 12, 8 x (Pin 4, configurable) + 4 x (Uaux, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	p-switching
Nominal Voltage	24 V DC via Uaux (actuator power supply)
Output Current per Channel	Pin 4: max. 500 mA/Uaux: max. 2 A
Output Current per Module	max. 9 A
Protective Circuit	Electronically: Overload protection, short-circuit protection
Galvanically Isolated	Pin 4: No/Uaux: Yes

Multi-protocol – IO-Link Masters (30 mm, M12 Power), 4 Digital Inputs, 8 IO-Link Channels, M12 or M8 I/O with M12 L-Coded Power Supply Connection, PROFINET or EtherNet/IP





Technical Information

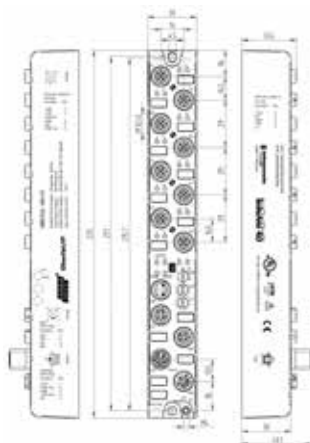
Product Description	
Type	0980 ESL 199-121
	   
	0980 ESL 199-122
	   
Description	LioN-P Multi-protocol module, PROFINET or EtherNet/IP device, 4 digital input channels, 8 IO-Link channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing
Order No.	934964004
Technical Data	
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C
Dimensions (W x H x D)	30 x 43.1 x 225 (mm)
Weight	480 g
Housing Material	Metal, Zinc Die-cast
Bus System	
Protocol	PROFINET IO Device/EtherNet/IP IO Device
Connection	M12 LAN connection, 4-poles, D-coded
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex
Rotary Address Switches	No
Power Supply	
Nominal Voltage	24 V DC (SELV/PELV)
Nominal Voltage Range	18 to 30 V DC
Connection	M12, L-coded, 5-poles
Current Carrying Capacity of Connector	16 A
Current Consumption (typ.)	180 mA (+/-20% at 24 V DC)
IO-Link Master Channels	
Number of Channels	8
Connection	M12, 5-poles, A-coded
Number of A Ports (IOL)	4 (X1 to X4)
Number of B Ports (IOL)	4 (X5 to X8)
Nominal Voltage (IOL)	24 V DC via US (system power supply)
Nominal Current C/Q (Pin 4)	500 mA
Nominal Current L+/L- (Pin 1 and 3)	500 mA
Nominal Current Uaux (Pin 2, B Ports)	max. 4 A per module
Input Channels	
Number of Channels	max. 12, 4 x (Pin 2, fixed) + 8 x (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	Type 1 acc. to IEC 61131-2
Nominal Voltage	24 V DC via US (system power supply)
Sensor Current Supply	500 mA per Port via L+/L-
Sensor Type	PNP
Output Channels	
Number of Channels	max. 8 (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	p-switching
Nominal Voltage	24 V DC via Uaux (actuator power supply)
Output Current per Channel	max. 500 mA (Pin 4)
Output Current per Module	max. 9 A
Protective Circuit	Electronically: Overload protection, short-circuit protection
Galvanically Isolated	No

Diagnostic Indication

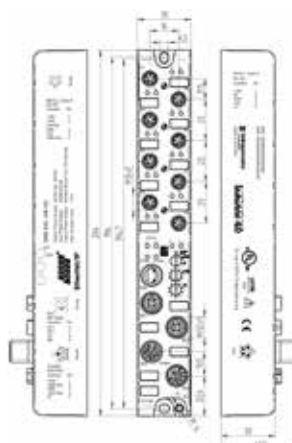
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
1...8 I/O-Link	Green Green blinking Off	No I/O-Link device connected I/O-Link communication available Port is not configured as I/O-Link
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
U _{AUX}	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ U _L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment

IO-Link Port Type A (X01...X04), M12 A-coded / M8 B-coded	IO-Link Port Type B (X05...X08), M12 A-coded / M8 B-coded
 <p>1 = +24 V 2 = IN 3 = GND 4 = C/Q 5 = n.c.</p> <p>M12</p>	 <p>1 = +24 V 2 = +24 V AUX/OUT 3 = GND 4 = C/Q 5 = GND AUX/OUT</p> <p>M8</p>
M12 Power Supply, L-coded	M12 PROFINET/EtherNet/IP, D-coded
 <p>1 = +24 V 2 = GND AUX 3 = GND 4 = +24 V AUX 5 = FE</p>	 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p>



0980 ESL 199-121









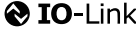









0980 ESL 199-122



The application of these products in harsh environments should always be checked before use. Technical modifications reserved.

Multi-protocol – IO-Link Masters (30 mm, M12 Hybrid), 4 Digital Inputs, 8 IO-Link Channels, M12 or M8 I/O with M12 Hybrid Y-coded Data (LAN) and Power Supply Connection

Technical Information

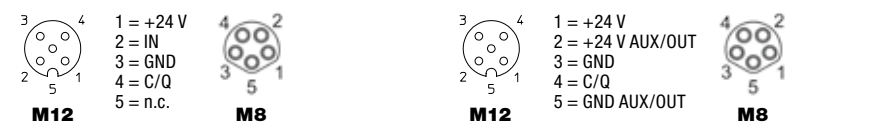
Product Description	
Type	0980 ESL 199-331
	       
	0980 ESL 199-332
	       
Description	<p>LioN-P Multi-protocol module, PROFINET or EtherNet/IP device, 4 digital input channels, 8 IO-Link channels, M12 Hybrid Y-coded data (LAN) and power supply connection, 8-poles, 30 mm housing</p>
Order No.	934964001
	934964002
Technical Data	
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C
Dimensions (W x H x D)	30 x 43 x 204 (mm)
Weight	448 g
Housing Material	Metal, Zinc Die-cast
Bus System	
Protocol	PROFINET IO Device/EtherNet/IP IO Device
Connection	M12, Y-coded, 8-poles
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex
Rotary Address Switches	No
Power Supply	
Nominal Voltage	24 V DC (SELV/PELV)
Nominal Voltage Range	18 to 30 V DC
Connection	M12, Y-coded, 8-poles
Current Carrying Capacity of Connector	6 A
Current Consumption (typ.)	180 mA (+/-20% at 24 V DC)
IO-Link Master Channels	
Number of Channels	8
Connection	M12, 5-poles, A-coded
Number of A Ports (IOL)	4 (X1 to X4)
Number of B Ports (IOL)	4 (X5 to X8)
Nominal Voltage (IOL)	24 V DC via US (system power supply)
Nominal Current C/Q (Pin 4)	500 mA
Nominal Current L+/L- (Pin 1 and 3)	500 mA
Nominal Current Uaux (Pin 2, B Ports)	max. 4 A per module
Input Channels	
Number of Channels	max. 12, 4 x (Pin 2, fixed) + 8 x (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	Type 1 acc. to IEC 61131-2
Nominal Voltage	24 V DC via US (system power supply)
Sensor Current Supply	500 mA per Port via L+/L-
Sensor Type	PNP
Output Channels	
Number of Channels	max. 8 (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	p-switching
Nominal Voltage	24 V DC via Uaux (actuator power supply)
Output Current per Channel	max. 500 mA (Pin 4)
Output Current per Module	max. 9 A
Protective Circuit	Electronically: Overload protection, short-circuit protection
Galvanically Isolated	No

Diagnostic Indication

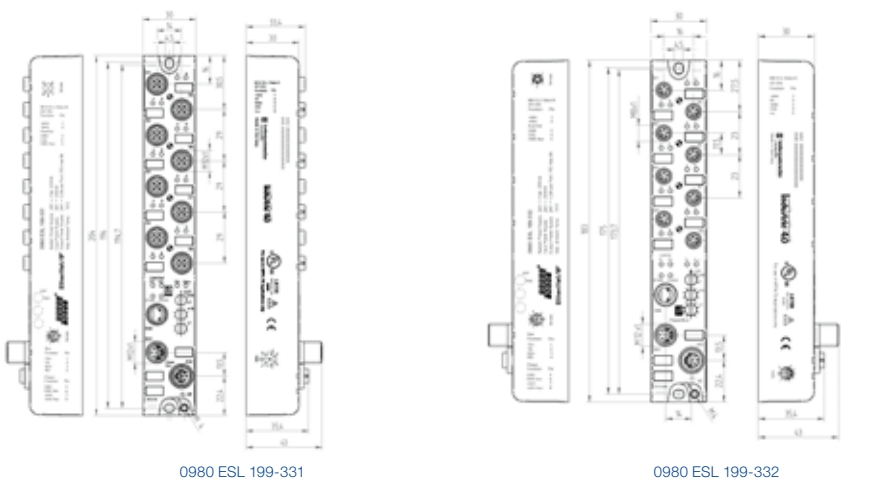
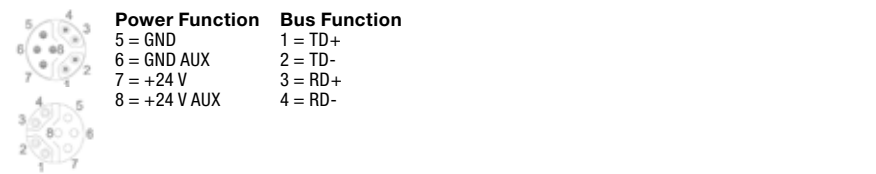
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
1...8 I/O-Link	Green Green blinking Off	No I/O-Link device connected I/O-Link communication available Port is not configured as I/O-Link
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
U _{AUX}	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ U_L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment

IO-Link Port Type A (X01...X04), M12 A-coded / M8 B-coded **IO-Link Port Type B (X05...X08), M12 A-coded / M8 B-coded**



M12 Hybrid Power Supply and Bus Function, Y-coded



The application of these products in harsh environments should always be checked before use. Technical modifications reserved.



I/O Modules Active – Stand-Alone: LioN-Power PROFINET



Be certain. Belden.

PROFINET – Process Field Network

PROFINET (Process Field Network) is an open Industrial Ethernet Standard for automation from Profibus & Profinet International (PI). PROFINET uses the Ethernet standard, is a realtime-capable system and is standardized under IEC 61158 and IEC 61784. PROFINET minimizes the costs of installation, engineering and commissioning for manufacturers of machines and systems. Operators can extend their systems with ease and at the same time benefit from a high level of system availability.

PROFINET also allows use of web technologies by means of the Ethernet-based protocol – access to a web server integrated in the field devices. This allows addressing, diagnostic and other information to be retrieved easily across network boundaries using standard web browsers.



Universal functionality
for cost-effective and
reliable solutions.

General Technical Data

Transmission medium

- 4 or 8-wire (2 or 4-pair) shielded cable as per ISO/IEC 11801 Edition 2.0, IEC 61156-1, IEC 61156-5 (Minimum Category 5)
- Hybrid cable for transmitting data and energy

Network topology

- Line structure or structured cabling using switches

Number of devices

- Arbitrary, depends on network structure

Reliable transmission rates and segment lengths

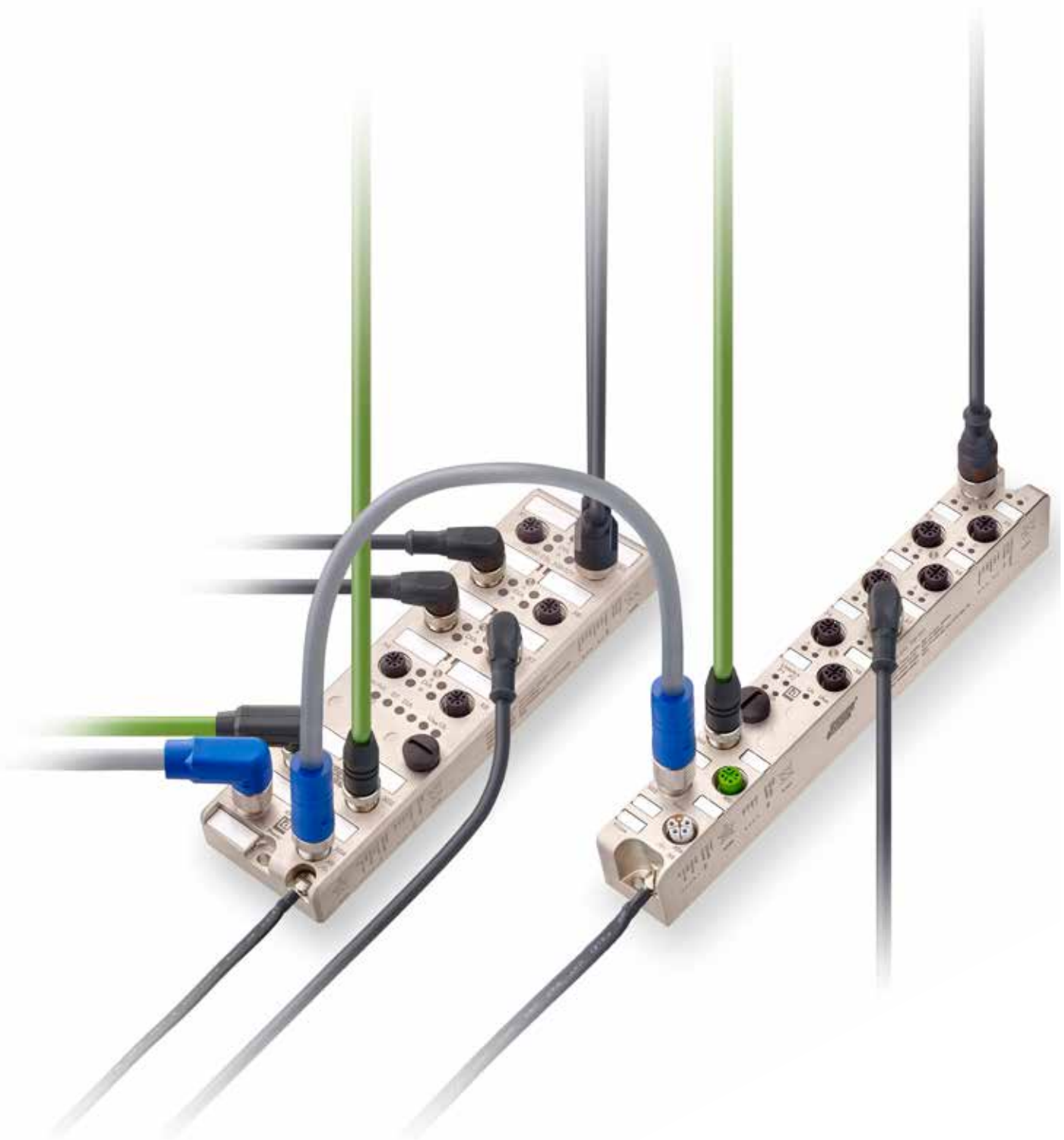
- Max. 100 Mbit/s (Fast Ethernet)

Configuration of devices

Configuration of the individual devices is performed on the basis of GSDML files (device master file in XML format), provided by the manufacturer for every slave. The GSDML files for Lumberg Automation bus modules can be downloaded at www.lumberg-automation.com/downloads.













Addressing

Addressing is performed based on a symbolic device name assigned by the DCP protocol.



PROFINET – Digital Inputs

Technical Information

Product Description		
Type	0980 ESL 301-121	0980 ESL 301-111
	 <p>NEW!     </p>	 <p>NEW!     </p>
Description	LioN-P PROFINET device, 16 digital input channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P PROFINET device, 16 digital input channels, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934878001	934881001
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex	
Rotary Address Switches	No	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	16	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	







Bit Assignment

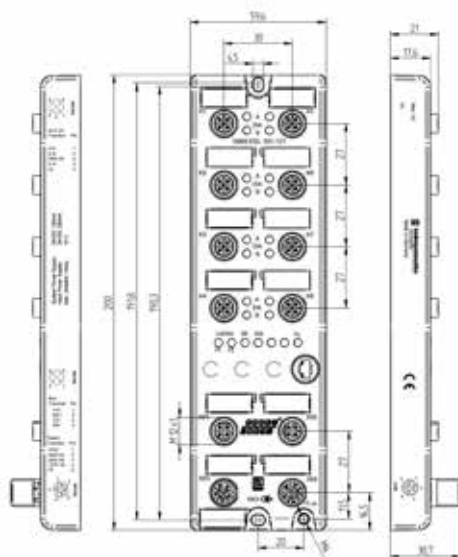
Bit	7	6	5	4	3	2	1	0
M12 Input 16DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

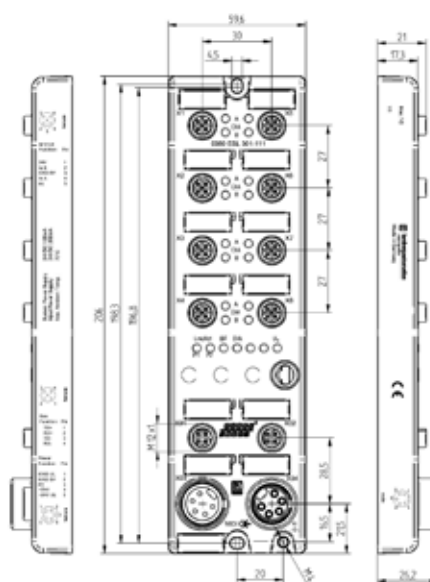
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
Us	Green Red	Voltage 19 V ≤ Us ≤ 30 V Us Voltage < 19 V or Us > 30 V

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE 	 <ul style="list-style-type: none"> 1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-



0980 ESL 301-121















0980 ESL 301-111



PROFINET – Digital Outputs

Technical Information

Product Description		
Type	0980 ESL 302-121	0980 ESL 302-111
	 <p>NEW!     </p>	 <p>NEW!     </p>
Description	LioN-P PROFINET device, 16 digital outputs channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P PROFINET device, 16 digital outputs channels, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934878002	934881002
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex	
Rotary Address Switches	No	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Output Channels		
Number of Channels	16	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	





Bit Assignment

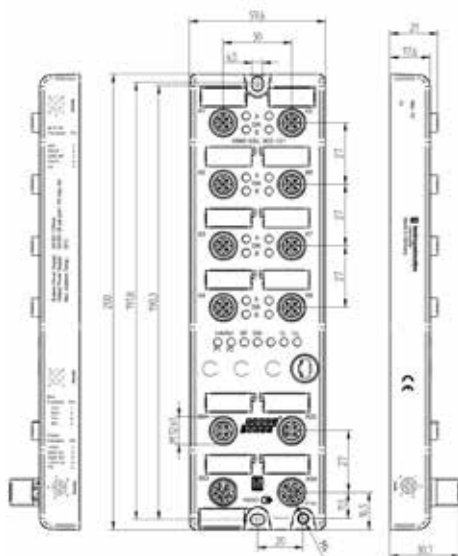
Bit	7	6	5	4	3	2	1	0
M12 Output 16DO								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

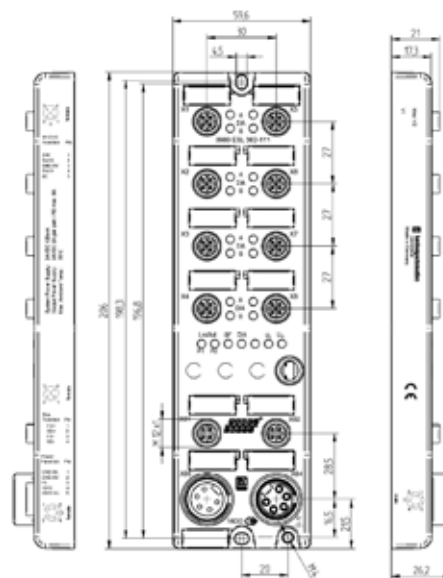
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
Us	Green Red	Voltage 19 V ≤ Us ≤ 30 V Us Voltage < 19 V or Us > 30 V
Ul	Green Red	Voltage 19 V ≤ Ul ≤ 30 V Ul Voltage < 19 V or Ul > 30 V

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <p>1 = +24 V 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = FE</p>	 <p>1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE</p>	 <p>1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL</p>	 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p>



0980 ESL 302-121















0980 ESL 302-111



PROFINET – Digital In- and Outputs

Technical Information

Product Description		
Type	0980 ESL 303-121	0980 ESL 303-111
	 <p>NEW!     </p>	 <p>NEW!     </p>
Description	LioN-P PROFINET device, 8 digital input channels and 8 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P PROFINET device, 8 digital input and 8 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934878003	934881003
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex	
Rotary Address Switches	No	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	8	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	
Output Channels		
Number of Channels	8	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	





Bit Assignment

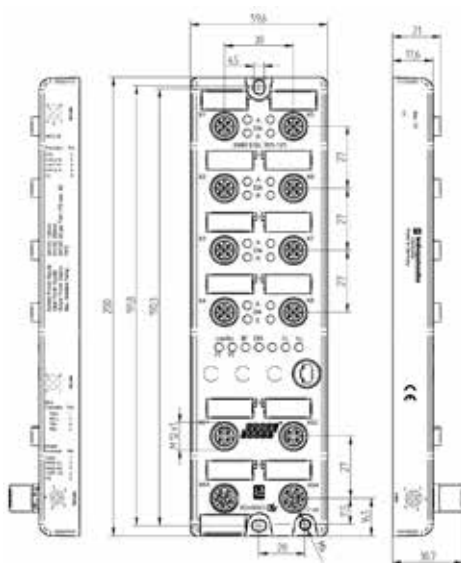
Bit	7	6	5	4	3	2	1	0
M12 Input 8DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output 8DO								
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

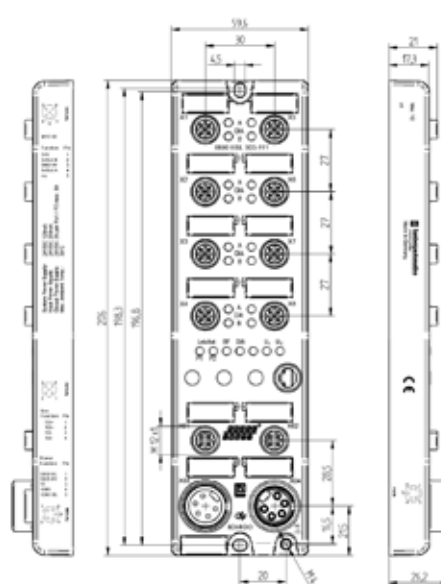
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
Us	Green Red	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$ U_s Voltage $< 19\text{ V}$ or $U_s > 30\text{ V}$
Ul	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ U_L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE 	 <ul style="list-style-type: none"> 1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-















0980 ESL 303-121



0980 ESL 303-111







PROFINET – Digital In- and Outputs (Universal)**Technical Information**

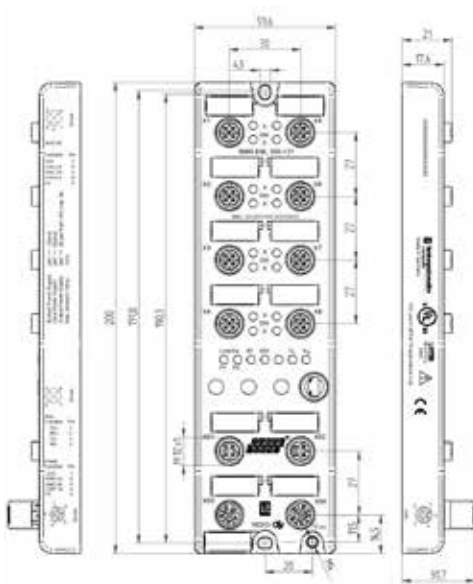
Product Description		
Type	0980 ESL 300-121	0980 ESL 300-111
	 <p>NEW!     </p>	 <p>NEW!     </p>
Description	LioN-P PROFINET device, 16 digital in-/output channels, channels can be used universally as inputs or outputs, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P PROFINET device, 16 digital in-/output channels, channels can be used universally as inputs or outputs, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934878007	934881007
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	PROFINET IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	max. 16	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	
Output Channels		
Number of Channels	max. 16	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	

Diagnostic Indication

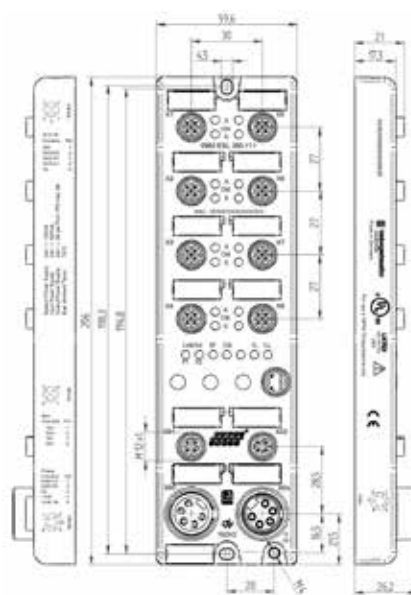
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
Us	Green Red	Voltage 19 V ≤ Us ≤ 30 V Us Voltage < 19 V or Us > 30 V
Ul	Green Red	Voltage 19 V ≤ Ul ≤ 30 V Ul Voltage < 19 V or Ul > 30 V

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND Ul 3 = GND (0 V) 4 = +24 V Ul 5 = FE 	 <ul style="list-style-type: none"> 1 = GND Ul 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V Ul 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-









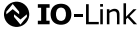
0980 ESL 300-121



0980 ESL 300-111



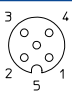
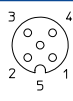



PROFINET – IO-Link Masters (60 mm, M12 Power)**Technical Information**

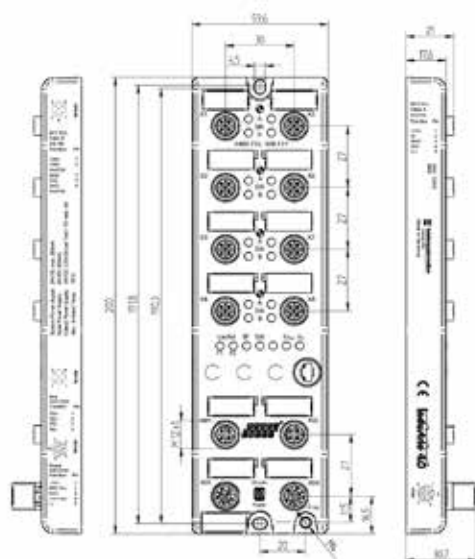
Product Description	
Type	0980 ESL 309-121
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Description	LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles
Order No.	934878004
Technical Data	
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)
Weight	500 g
Housing Material	Metal, Zinc Die-cast
Bus System	
Protocol	PROFINET IO Device
Connection	M12 LAN connection, 4-poles, D-coded
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex
Rotary Address Switches	No
Power Supply	
Nominal Voltage	24 V DC (SELV/PELV)
Nominal Voltage Range	18 to 30 V DC
Connection	M12, L-coded, 5-poles
Current Carrying Capacity of Connector	16 A
Current Consumption (typ.)	180 mA (+/-20% at 24 V DC)
IO-Link Master Channels	
Number of Channels	8
Connection	M12, 5-poles, A-coded
Number of A Ports (IOL)	4 (X1 to X4)
Number of B Ports (IOL)	4 (X5 to X8)
Nominal Voltage (IOL)	24 V DC via US (system power supply)
Nominal Current C/Q (Pin 4)	500 mA
Nominal Current L+/-L- (Pin 1 and 3)	500 mA
Nominal Current Uaux (Pin 2, B Ports)	max. 2 A per port/max. 4 A per module
Input Channels	
Number of Channels	max. 12, 4 x (Pin 2, fixed) + 8 x (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	Type 1 acc. to IEC 61131-2
Nominal Voltage	24 V DC via US (system power supply)
Sensor Current Supply	500 mA per Port via L+/-L-
Sensor Type	PNP
Output Channels	
Number of Channels	max. 12, 8 x (Pin 4, configurable) + 4 x (Uaux, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	p-switching
Nominal Voltage	24 V DC via Uaux (actuator power supply)
Output Current per Channel	Pin 4: max. 500 mA/Uaux: max. 2 A
Output Current per Module	max. 9 A
Protective Circuit	Electronically: Overload protection, short-circuit protection
Galvanically Isolated	Pin 4: No/Uaux: Yes

Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
1...8 I/O-Link	Green Green blinking Off	No I/O-Link device connected I/O-Link communication available Port is not configured as I/O-Link
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
U _{AUX}	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ U _L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment








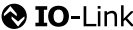







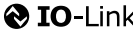







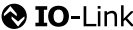







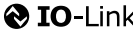







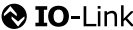







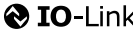
M12 I/O-Link Port, A-coded	M12 PROFINET I/O-Link Port, D-coded
 <p>Type A</p> <ul style="list-style-type: none"> 1 = +24 V 2 = IN 3 = GND 4 = C/Q 5 = n.c. <p>Type B</p> <ul style="list-style-type: none"> 1 = +24 V 2 = +24 V AUX/OUT 3 = GND 4 = C/Q 5 = GND AUX 	 <ul style="list-style-type: none"> 1 = +24 V 2 = +24 V AUX/OUT 3 = GND 4 = C/Q 5 = GND AUX/OUT
M12 Power Supply, L-coded	M12 PROFINET, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = GND AUX 3 = GND 4 = +24 V AUX 5 = FE 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-



0980 ESL 309-121









PROFINET – IO-Link Masters (30 mm, M12 Power)**Technical Information**

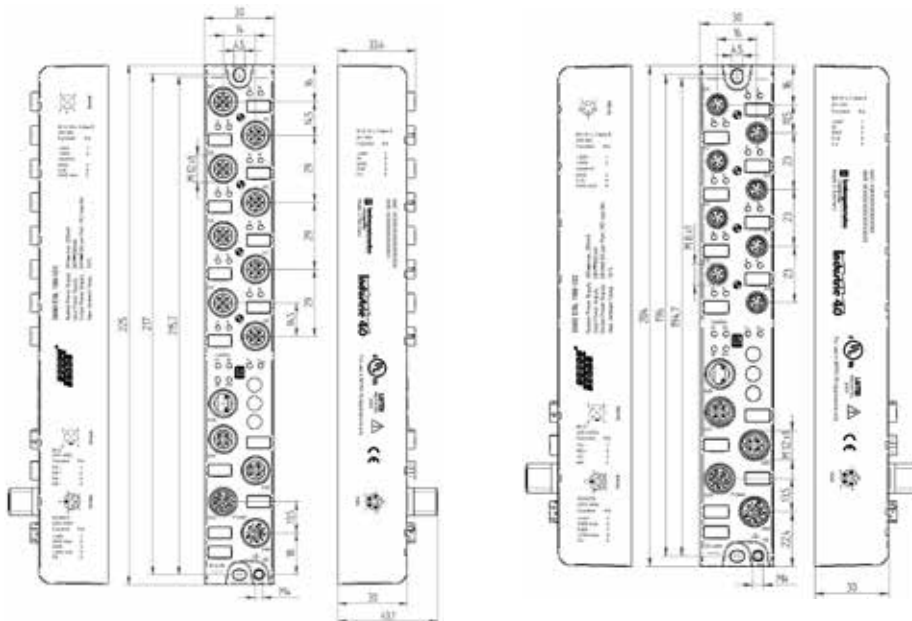
Product Description					
Type	<table border="1"> <tr> <th>0980 ESL 109-121</th> <th>0980 ESL 109-122</th> </tr> <tr> <td>         </td> <td>         </td> </tr> </table>	0980 ESL 109-121	0980 ESL 109-122	       	       
0980 ESL 109-121	0980 ESL 109-122				
       	       				
Description	<table border="1"> <tr> <td>LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing</td> <td>LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M8 I/O, 5-poles, B-coded, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing</td> </tr> </table>	LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing	LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M8 I/O, 5-poles, B-coded, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing		
LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing	LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M8 I/O, 5-poles, B-coded, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles, 30 mm housing				
Order No.	<table border="1"> <tr> <td>934861001</td> <td>934857001</td> </tr> </table>	934861001	934857001		
934861001	934857001				
Technical Data					
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)				
Ambient Temperature (Operation)	-20 °C to +70 °C				
Dimensions (W x H x D)	<table border="1"> <tr> <td>30 x 43.1 x 225 (mm)</td> <td>30 x 43.1 x 204 (mm)</td> </tr> </table>	30 x 43.1 x 225 (mm)	30 x 43.1 x 204 (mm)		
30 x 43.1 x 225 (mm)	30 x 43.1 x 204 (mm)				
Weight	<table border="1"> <tr> <td>480 g</td> <td>448 g</td> </tr> </table>	480 g	448 g		
480 g	448 g				
Housing Material	Metal, Zinc Die-cast				
Bus System					
Protocol	PROFINET IO Device				
Connection	M12 LAN connection, 4-poles, D-coded				
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex				
Rotary Address Switches	No				
Power Supply					
Nominal Voltage	24 V DC (SELV/PELV)				
Nominal Voltage Range	18 to 30 V DC				
Connection	M12, L-coded, 5-poles				
Current Carrying Capacity of Connector	16 A				
Current Consumption (typ.)	180 mA (+/-20% at 24 V DC)				
IO-Link Master Channels					
Number of Channels	8				
Connection	<table border="1"> <tr> <td>M12, 5-poles, A-coded</td> <td>M8, 5-poles, B-coded</td> </tr> </table>	M12, 5-poles, A-coded	M8, 5-poles, B-coded		
M12, 5-poles, A-coded	M8, 5-poles, B-coded				
Number of A Ports (IOL)	4 (X1 to X4)				
Number of B Ports (IOL)	4 (X5 to X8)				
Nominal Voltage (IOL)	24 V DC via US (system power supply)				
Nominal Current C/Q (Pin 4)	500 mA				
Nominal Current L+/L- (Pin 1 and 3)	500 mA				
Nominal Current Uaux (Pin 2, B Ports)	max. 4 A per module				
Input Channels					
Number of Channels	max. 12, 4 x (Pin 2, fixed) + 8 x (Pin 4, configurable)				
Connection	<table border="1"> <tr> <td>M12, 5-poles, A-coded</td> <td>M8, 5-poles, B-coded</td> </tr> </table>	M12, 5-poles, A-coded	M8, 5-poles, B-coded		
M12, 5-poles, A-coded	M8, 5-poles, B-coded				
Channel Type	Type 1 acc. to IEC 61131-2				
Nominal Voltage	24 V DC via US (system power supply)				
Sensor Current Supply	500 mA per Port via L+/L-				
Sensor Type	PNP				
Output Channels					
Number of Channels	max. 8 (Pin 4, configurable)				
Connection	<table border="1"> <tr> <td>M12, 5-poles, A-coded</td> <td>M8, 5-poles, B-coded</td> </tr> </table>	M12, 5-poles, A-coded	M8, 5-poles, B-coded		
M12, 5-poles, A-coded	M8, 5-poles, B-coded				
Channel Type	p-switching				
Nominal Voltage	24 V DC via Uaux (actuator power supply)				
Output Current per Channel	max. 500 mA (Pin 4)				
Output Current per Module	max. 9 A				
Protective Circuit	Electronically: Overload protection, short-circuit protection				
Galvanically Isolated	No				

Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
1...8 I/O-Link	Green Green blinking Off	No I/O-Link device connected I/O-Link communication available Port is not configured as I/O-Link
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
U _{Aux}	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ U _L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment

IO-Link Port Type A (X01...X04), M12 A-coded / M8 B-coded		IO-Link Port Type B (X05...X08), M12 A-coded / M8 B-coded	
 <p>1 = +24 V 2 = IN 3 = GND 4 = C/Q 5 = n.c.</p> <p>M12</p>	 <p>M8</p>	 <p>1 = +24 V 2 = +24 V AUX/OUT 3 = GND 4 = C/Q 5 = GND AUX/OUT</p> <p>M12</p>	 <p>M8</p>
M12 Power Supply, L-coded		M12 PROFINET/EtherNet/IP, D-coded	
 <p>1 = +24 V 2 = GND AUX 3 = GND 4 = +24 V AUX 5 = FE</p> <p>M12</p>	 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p> <p>M12</p>		









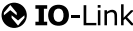





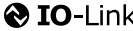
0980 ESL 109-121

0980 ESL 109-122



PROFINET – IO-Link Masters (30 mm, M12 Hybrid), 4 Digital Inputs, 8 IO-Link Channels, M12 or M8 I/O with M12 Hybrid Y-coded Data (LAN) and Power Supply Connection




Technical Information



Product Description	
Type	0980 ESL 109-331
	       
	0980 ESL 109-332
	       
Description	<p>LI0N-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M12 Hybrid Y-coded data (LAN) and power supply connection, 8-poles, 30 mm housing</p> <p>LioN-P PROFINET device, 4 digital input channels, 8 IO-Link channels, M8 I/O, 5-poles, B-coded, M12 Hybrid Y-coded data (LAN) and power supply connection, 8-poles, 30 mm housing</p>
Order No.	934862001
	934840001
Technical Data	
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C
Dimensions (W x H x D)	30 x 43 x 204 (mm)
Weight	448 g
Housing Material	Metal, Zinc Die-cast
Bus System	
Protocol	PROFINET IO Device
Connection	M12, Y-coded, 8-poles
Transmission Rate	Fast Ethernet (100 Mbit/s), Full Duplex
Rotary Address Switches	No
Power Supply	
Nominal Voltage	24 V DC (SELV/PELV)
Nominal Voltage Range	18 to 30 V DC
Connection	M12, Y-coded, 8-poles
Current Carrying Capacity of Connector	6 A
Current Consumption (typ.)	180 mA (+/-20% at 24 V DC)
IO-Link Master Channels	
Number of Channels	8
Connection	M12, 5-poles, A-coded
Number of A Ports (IOL)	4 (X1 to X4)
Number of B Ports (IOL)	4 (X5 to X8)
Nominal Voltage (IOL)	24 V DC via US (system power supply)
Nominal Current C/Q (Pin 4)	500 mA
Nominal Current L+/L- (Pin 1 and 3)	500 mA
Nominal Current Uaux (Pin 2, B Ports)	max. 4 A per module
Input Channels	
Number of Channels	max. 12, 4 x (Pin 2, fixed) + 8 x (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	Type 1 acc. to IEC 61131-2
Nominal Voltage	24 V DC via US (system power supply)
Sensor Current Supply	500 mA per Port via L+/L-
Sensor Type	PNP
Output Channels	
Number of Channels	max. 8 (Pin 4, configurable)
Connection	M12, 5-poles, A-coded
Channel Type	p-switching
Nominal Voltage	24 V DC via Uaux (actuator power supply)
Output Current per Channel	max. 500 mA (Pin 4)
Output Current per Module	max. 9 A
Protective Circuit	Electronically: Overload protection, short-circuit protection
Galvanically Isolated	No

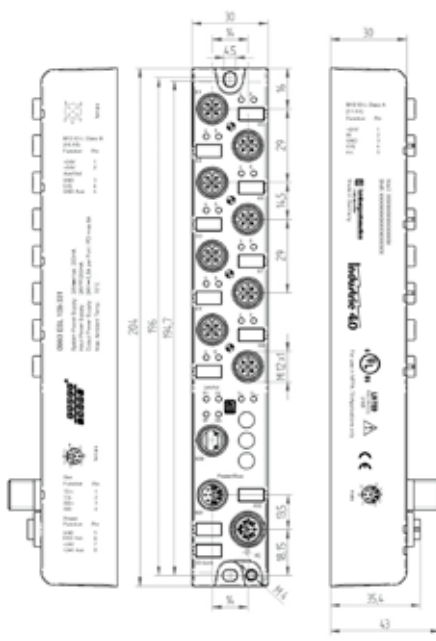
Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
1...8 I/O-Link	Green Green blinking Off	No I/O-Link device connected I/O-Link communication available Port is not configured as I/O-Link
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message
Us	Green	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$
U _{Aux}	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ U _L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

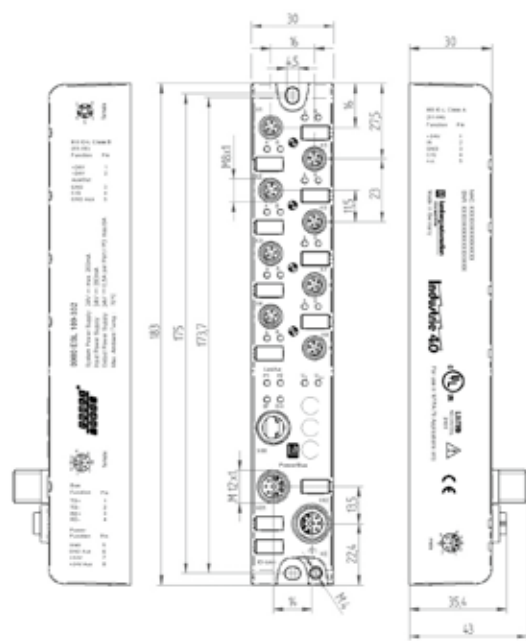
Pin Assignment

IO-Link Port Type A (X01...X04), M12 A-coded / M8 B-coded		IO-Link Port Type B (X05...X08), M12 A-coded / M8 B-coded	
	1 = +24 V 2 = IN 3 = GND 4 = C/Q 5 = n.c.		
M12		M12	1 = +24 V 2 = +24 V AUX/OUT 3 = GND 4 = C/Q 5 = GND AUX/OUT
			M8

M12 Hybrid Power Supply and Bus Function, Y-coded	
	Power Function 5 = GND 6 = GND AUX 7 = +24 V 8 = +24 V AUX
	Bus Function 1 = TD+ 2 = TD- 3 = RD+ 4 = RD-



0980 ESL 109-331



0980 ESL 109-332



The application of these products in harsh environments should always be checked before use. Technical modifications reserved.



I/O Modules Active – Stand-Alone: LioN-Power EtherNet/IP



Be certain. Belden.

EtherNet Industrial Protocol

A procedure was developed in 1998 by a ControlNet International working group for adapting the application protocol, the Common Industrial Protocol, to Ethernet. EtherNet/IP was published as an official industrial standard based on this procedure in March 2000.

EtherNet/IP (EtherNet Industrial Protocol, or EIP for short) is a real-time protocol used primarily in automation technology, and is promoted by more than 150 manufacturers. Based on the TCP and UDP standards, EtherNet/IP supports continuity between the office and production network. The web

server integrated in the Logix control interface module can be used during startup (diagnostics) of EtherNet/IP networks as well as web servers available in other EtherNet/IP equipment.

The typical cycle time of an EtherNet/IP network is 10 ms, which means it is not suitable for "hard" realtime applications (<1 ms), for example, for controlling servo motors. A protocol extension is available for EtherNet/IP for this purpose in the form of CIPSync or MotionSync. Normal twisted pair cables or fiber optic cables are used as a transmission medium.

EtherNet/IP™

Optimized installation
and use for increased
efficiency.

General Technical Data

Transmission medium

- 4 or 8-wire (2 or 4-pair) shielded cable as per ISO/IEC 11801 Edition 2.0, ANSI/TIA/EIA-568-B.2 Annex N, Category 5 (minimum)
- Hybrid cable for transmitting data and energy

Network topology

- Line structure or structured cabling using switches
- Implemented DLR (Device Level Ring Protocol) allows uninterruptible operation

Number of devices

- Arbitrary, depends on network structure

Reliable transmission rates and segment lengths

- Max. 100 Mbit/s (Fast Ethernet)

Configuration of devices

Configuration of the individual devices is performed on the basis of EDS files (Electronic Data Sheet), provided by the manufacturer for each slave. The EDS files for Lumberg Automation bus modules can be downloaded at www.lumberg-automation.com/downloads.

Addressing

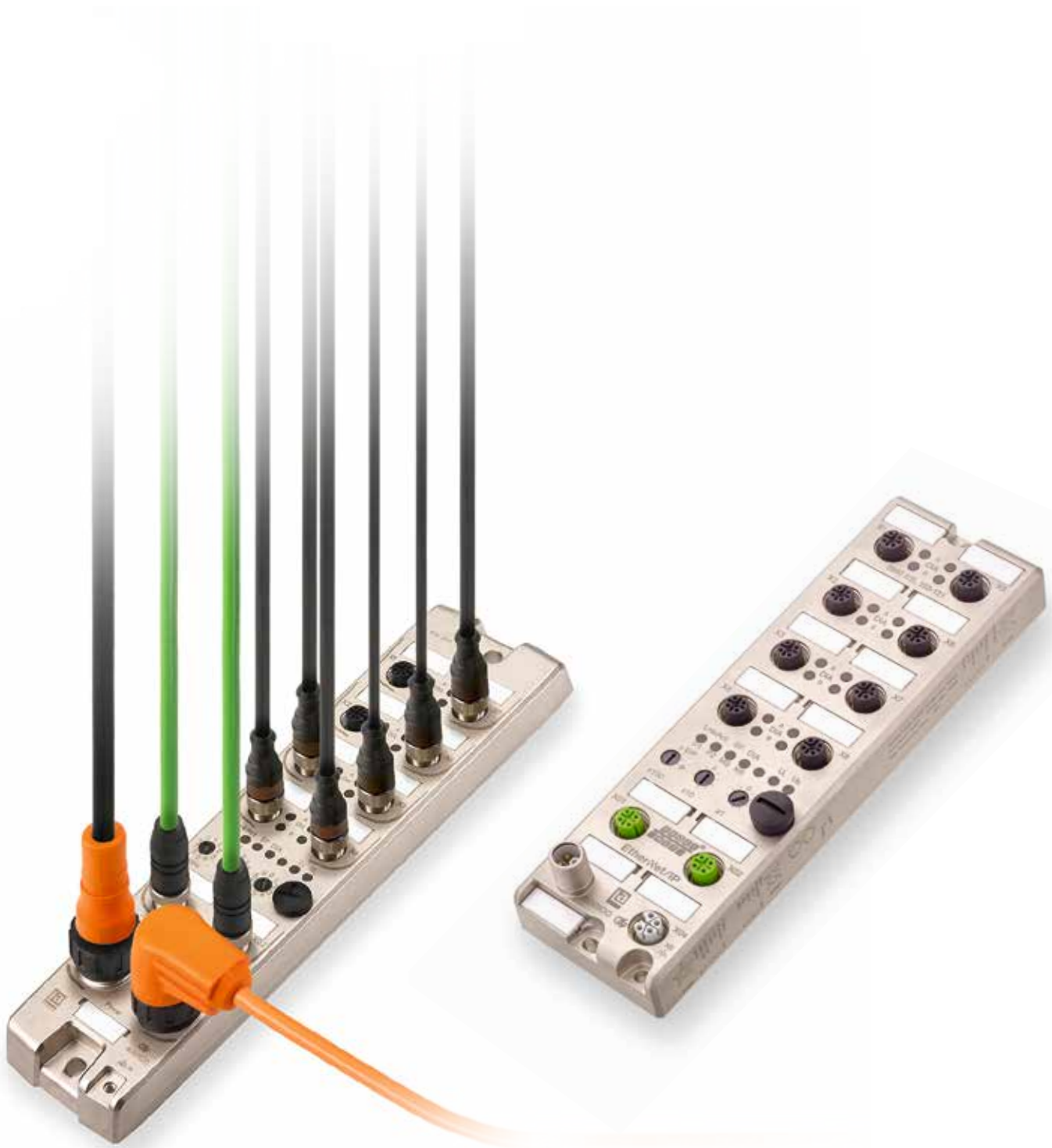
Addressing is performed on the basis of three rotary switches, which are used to set the last octet of the IP address. Addressing can alternatively be performed by means of a BOOTP server or DHCP server.

Quick Connect-Technology

The new Quick Connect technology of LioN-R Ethernet / IP ensures that the modules can be integrated or removed quickly and efficiently into the Ethernet / IP network, in particular after the tool change in a robot.















The advantages of the Quick Connect technology at a glance:

- Faster production cycles
- Shorter tool changes
- More flexibility in the production process



EtherNet/IP - Digital Inputs

Technical Information

Product Description		
Type	0980 ESL 311-121	0980 ESL 311-111
	      	      
Description	LioN-P EtherNet/IP device, 16 digital input channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P EtherNet/IP device, 16 digital input channels, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934839001	934880001
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	EtherNet/IP IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	16	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	





Bit Assignment

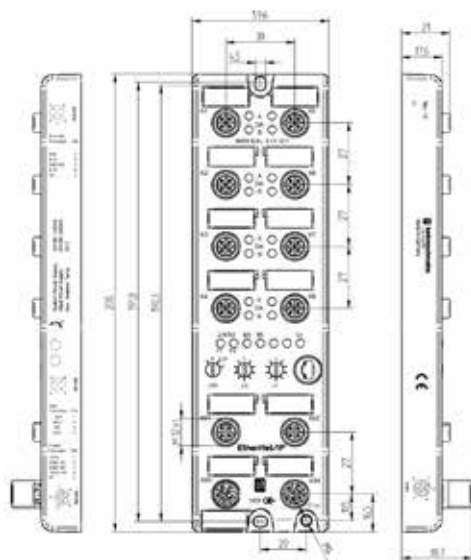
Bit	7	6	5	4	3	2	1	0
M12 Input 16DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

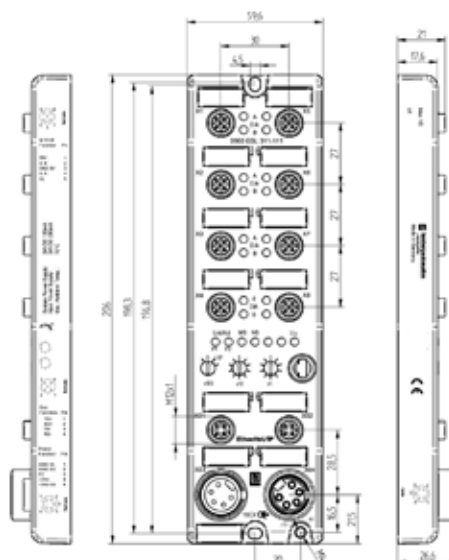
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green Red	Voltage 19 V <= Us <= 30 V Us Voltage < 19 V or Us > 30 V

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE 	 <ul style="list-style-type: none"> 1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-



0980 ESL 311-121

















0980 ESL 311-111



EtherNet/IP - Digital Outputs

Technical Information

Product Description		
Type	0980 ESL 312-121	0980 ESL 312-111
	      	      
Description	LioN-P EtherNet/IP device, 16 digital output channels, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P EtherNet/IP device, 16 digital output channels, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934839002	934880002
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	EtherNet/IP IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Output Channels		
Number of Channels	16	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	





Bit Assignment

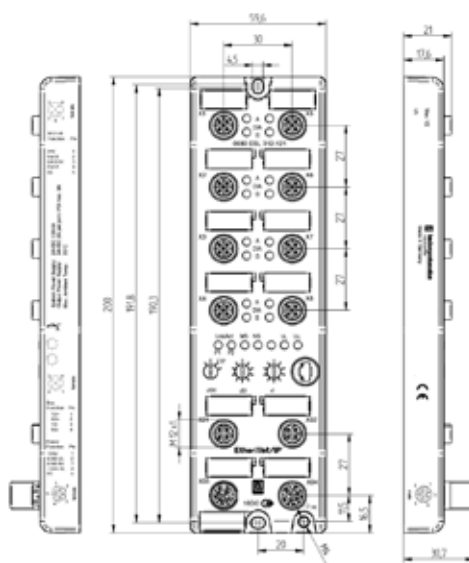
Bit	7	6	5	4	3	2	1	0
M12 Output 16DO								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

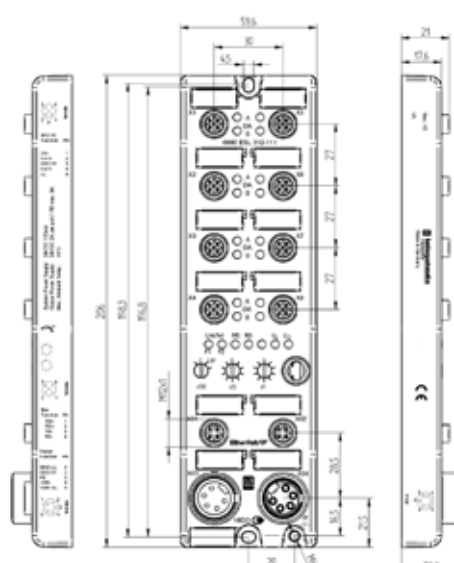
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green Red	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$ Us Voltage $< 19\text{ V}$ or $U_s > 30\text{ V}$
UL	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ UL Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <p>1 = +24 V 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = FE</p>	 <p>1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE</p>	 <p>1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL</p>	 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p>



0980 ESL 312-121

















0980 ESL 312-111



EtherNet/IP - Digital In- and Outputs

Technical Information

Product Description		
Type	0980 ESL 313-121	0980 ESL 313-111
	      	      
Description	LioN-P EtherNet/IP device, 8 digital input and 8 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P EtherNet/IP device, 8 digital input and 8 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934839003	934880003
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	EtherNet/IP IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	8	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	
Output Channels		
Number of Channels	8	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	





Bit Assignment

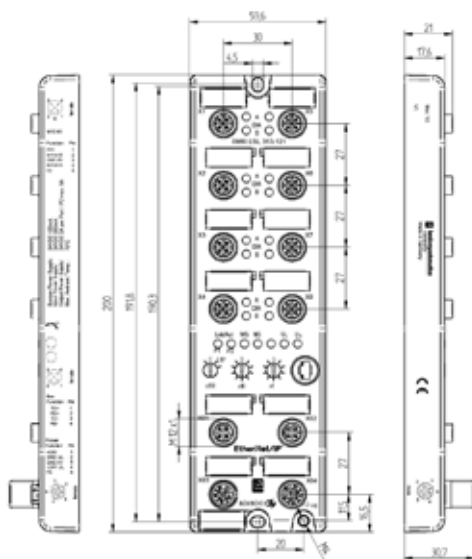
Bit	7	6	5	4	3	2	1	0
M12 Input 8DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output 8DO								
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

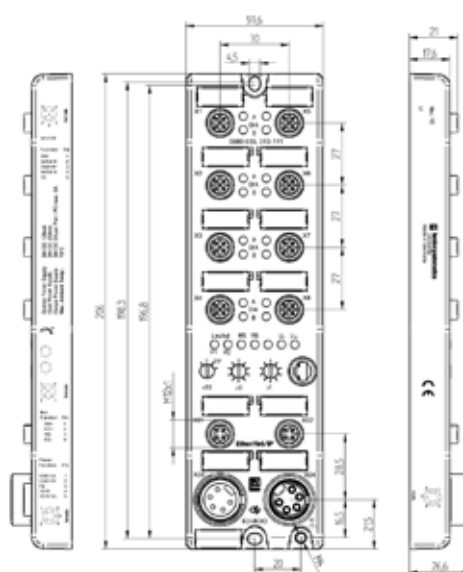
LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Green blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green Red	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$ U_s Voltage $< 19\text{ V}$ or $U_s > 30\text{ V}$
UL	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ U_L Voltage $< 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = FE</p>	 <p>1 = +24 V 2 = GND UL 3 = GND (0 V) 4 = +24 V UL 5 = FE</p>	 <p>1 = GND UL 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V UL</p>	 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p>

















0980 ESL 313-121



0980 ESL 313-111







EtherNet/IP - Digital In- and Outputs (Universal)**Technical Information**

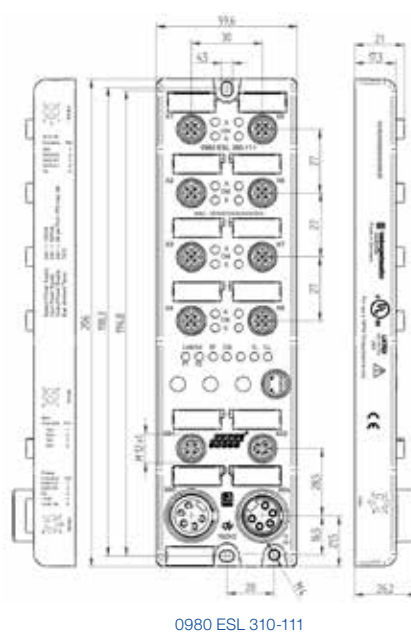
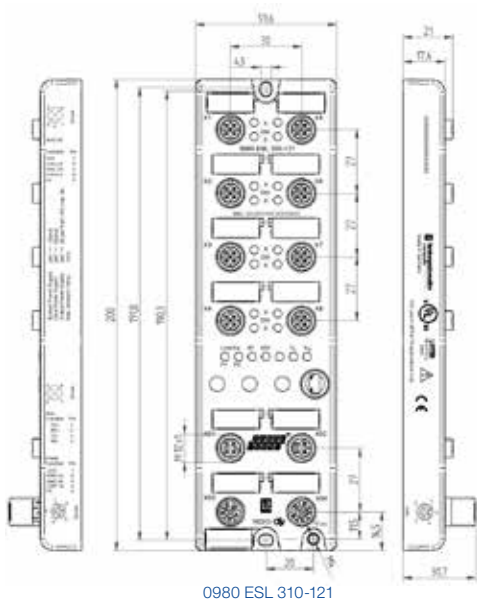
Product Description		
Type	0980 ESL 310-121	0980 ESL 310-111
	      	      
Description	LioN-P EtherNet/IP device, 16 digital in-/output channels, channels can be used universally as inputs or outputs, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles	LioN-P EtherNet/IP device, 16 digital in-/output channels, channels can be used universally as inputs or outputs, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934839007	934880007
Technical Data		
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)	IP65, IP67 (only if mounted and locked in combination with Hirschmann/Lumberg connector)
Ambient Temperature (Operation)	-20 °C to +70 °C	
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)	59.6 x 26.2 x 206 (mm)
Weight	500 g	520 g
Housing Material	Metal, Zinc Die-cast	
Bus System		
Protocol	EtherNet/IP IO Device	
Connection	M12 LAN connection, 4-poles, D-coded	
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex	
Rotary Address Switches	Yes, 3x	
Power Supply		
Nominal Voltage	24 V DC (SELV/PELV)	
Nominal Voltage Range	18 to 30 V DC	
Connection	M12, L-coded, 5-poles	7/8", 5-poles
Current Carrying Capacity of Connector	16 A	9 A
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)	
Input Channels		
Number of Channels	max. 16	
Connection	M12, 5-poles, A-coded	
Channel Type	Type 3 acc. to IEC 61131-2	
Nominal Voltage	24 V DC via US (system power supply)	
Sensor Current Supply	200 mA per Port	
Sensor Type	PNP	
Output Channels		
Number of Channels	max. 16	
Connection	M12, 5-poles, A-coded	
Channel Type	p-switching	
Nominal Voltage	24 V DC via Uaux (actuator power supply)	
Output Current per Channel	max. 2 A	
Output Current per Module	max. 9 A	
Protective Circuit	Electronically: Overload protection, short-circuit protection	
Galvanically Isolated	Yes	

Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green Red	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$ Voltage $U_s < 19\text{ V}$ or $U_s > 30\text{ V}$
U _L	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ Voltage $U_L < 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	Power Supply 7/8"	M12 PROFINET/EtherNet/IP, D-coded
 <ul style="list-style-type: none"> 1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = FE 	 <ul style="list-style-type: none"> 1 = +24 V 2 = GND U_L 3 = GND (0 V) 4 = +24 V U_L 5 = FE 	 <ul style="list-style-type: none"> 1 = GND U_L 2 = GND (0 V) 3 = FE 4 = +24 V 5 = +24 V U_L 	 <ul style="list-style-type: none"> 1 = TD+ 2 = RD+ 3 = TD- 4 = RD-





M12 Hybrid Connectors

Be certain. Belden.



M12 Hybrid Connectors

The M12 Hybrid Connectors' innovative technology combines reliable power and data transmission while meeting industry Y-coding standards according to IEC 61076-2-113.

Together with Lumberg Automation's LioN-Power system, featuring I/O-Link and multiprotocol capability, the M12 Hybrid Connectors provide a complete connection solution with the reduced size needed for today's smaller and more intelligent devices.



The small size and light weight of the M12 Hybrid Connectors ease installation and maintenance efforts, while the high performance shielding concept enables more reliable power and data transmission. Up until now, engineers and installers had to use two separate connections to transfer both data and power.

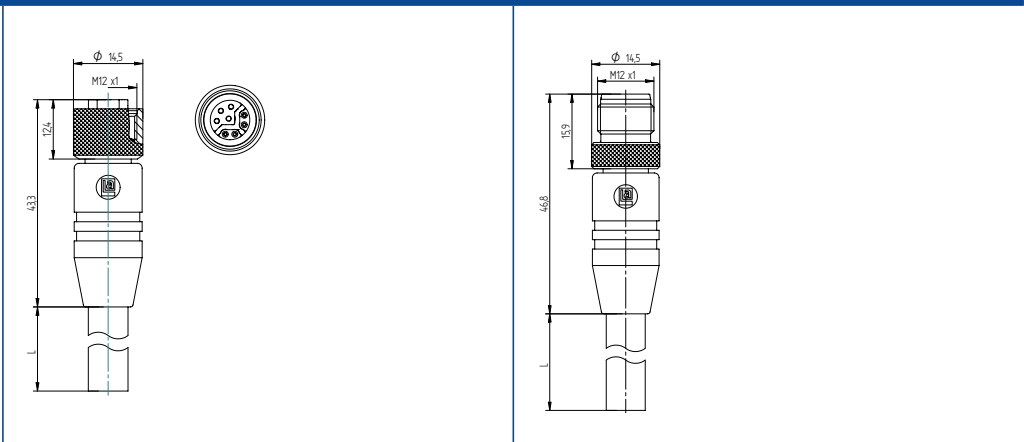
The M12 Hybrid Connectors revolutionize connectivity by providing one interface that simultaneously transfers power up to 2 x 6A and data with speeds up to 100 Mbit/s.

M12 Hybrid Connectors are built to withstand harsh environments, including exposure to any kind of mechanical stress, such as the shock and vibration that comes with operating in high pressure cleaning processes (IP69K). The M12 Hybrid Connectors can handle the daily rigors of use with heavy equipment in the machine building, food and beverage, automotive, material handling, industrial automation and building automation industries.

M12 Hybrid Single-Ended Overmolded Cordsets, 8-Pole (Y-Coded)

Technical Information

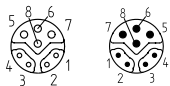
Product Description		
Order Designation	RKTS 8Y	RSTS 8Y
		
Description	M12 Hybrid single-ended molded cordset, female straight, 8-pole, Y-coded, 360° shielded, screw attachment transmits power and data (Fast Ethernet, 100 Mbit/s, Cat5)	M12 Hybrid single-ended molded cordset, male straight, 8-pole, Y-coded, 360° shielded, screw attachment transmits power and data (Fast Ethernet, 100 Mbit/s, Cat5)
Type Contact	Female	Male
Number of Contacts	8 Pole (4 + 4)	
Standard	IEC 61076-2-113	
Construction Type	Y-Coded	
Technical Data		
Operating Voltage	50 V AC/DC	
Rated Current	0.5 A (data) / 6 A (power)	
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)	
Environmental Conditions		
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)	
Temperature Range (connector)	-40 °C to +90 °C, notice derating	
Technical Drawing		



L = Standard length of cable





































Pin Assignment

8-pin, Y-coded



- 1 = white/orange
- 2 = orange
- 3 = white/green
- 4 = green
- 5 = blue
- 6 = white
- 7 = brown
- 8 = black

Order Information




Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934845001	RKTS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934845002	RKTS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934845003	RKTS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934845004	RKTS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934845005	RKTS 8Y-922/20 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934845006	RKTS 8Y-922/25 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934847001	RSTS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934847002	RSTS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934847003	RSTS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934847004	RSTS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934847005	RSTS 8Y-922/20 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934847006	RSTS 8Y-922/25 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  

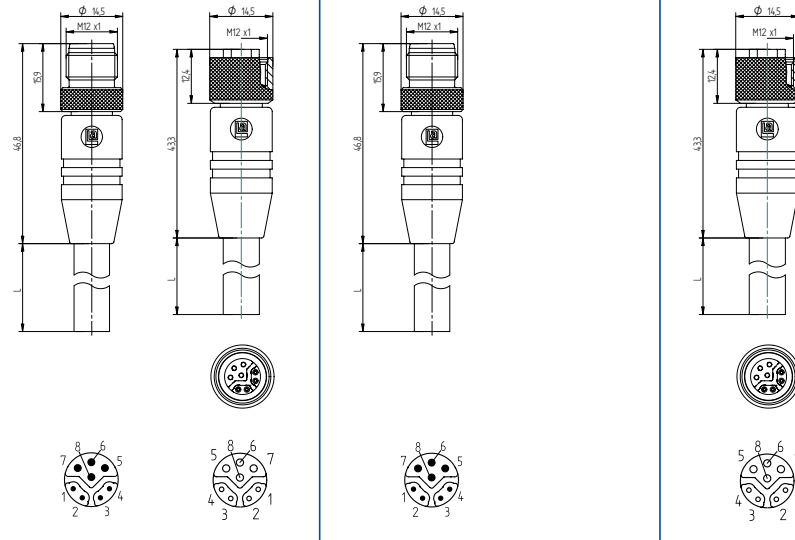
Special circuitry available upon request

Use of the product in aggressive media must be checked on a case-by-case basis.
Subject to technical modification.

M12 Hybrid Double-Ended Overmolded Cordsets, 8-Pole (Y-Coded)

Technical Information

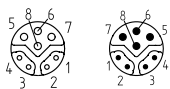
Product Description			
Order Designation	RSTS 8Y-RKTS 8Y	RSTS 8Y-RSTS 8Y	RKTS 8Y-RKTS 8Y
			
Description	M12 Hybrid double-ended molded cordset, male straight to female straight, 8-pole, Y-coded, 360° shielded, screw attachment transmits power and data (Fast Ethernet, 100 Mbit/s, Cat5).	M12 Hybrid double-ended molded cordset, male straight to male straight, 8-pole, Y-coded, 360° shielded, screw attachment transmits power and data (Fast Ethernet, 100 Mbit/s, Cat5).	M12 Hybrid double-ended molded cordset, female straight to female straight, 8-pole, Y-coded, 360° shielded, screw attachment transmits power and data (Fast Ethernet, 100 Mbit/s, Cat5).
Type Contact	Male to Female	Male to Male	Female to Female
Number of Contacts	8 Pole (4 + 4)		
Standard	IEC 61076-2-113		
Construction Type	Y-Coded		
Technical Data			
Operating Voltage	50 V AC/DC		
Rated Current	0.5 A (data) / 6 A (power)		
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)		
Environmental Conditions			
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)		
Temperature Range (connector)	-40 °C to +90 °C, notice derating		
Technical Drawing			



L = Standard length of cable









































































Pin Assignment

8-pin, Y-coded





- 1 = white/orange
- 2 = orange
- 3 = white/green
- 4 = green
- 5 = blue
- 6 = white
- 7 = brown
- 8 = black

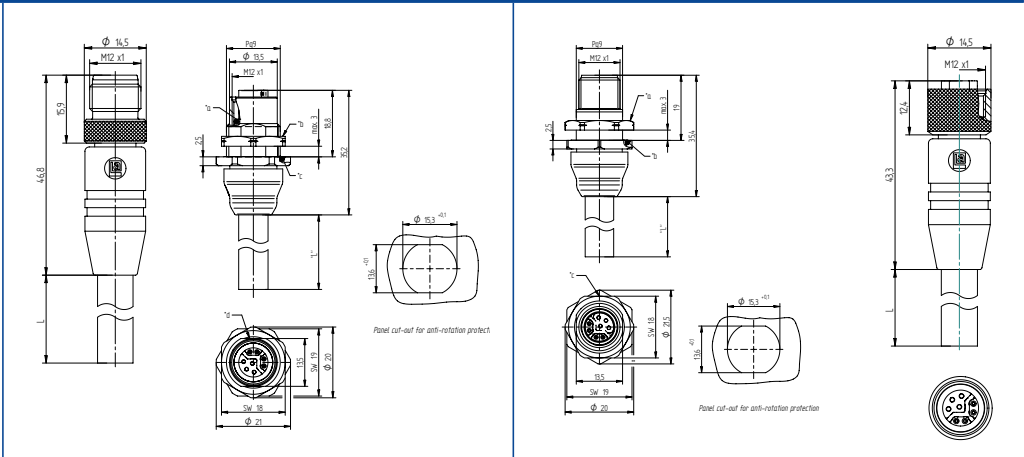
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934966001	RSTS 8Y-RKTS 8Y-922/0.3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966002	RSTS 8Y-RKTS 8Y-922/0.6 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966003	RSTS 8Y-RKTS 8Y-922/1 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966004	RSTS 8Y-RKTS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966005	RSTS 8Y-RKTS 8Y-922/3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966006	RSTS 8Y-RKTS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966007	RSTS 8Y-RKTS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966008	RSTS 8Y-RKTS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966101	RKTS 8Y-RKTS 8Y-922/0.3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966102	RKTS 8Y-RKTS 8Y-922/0.6 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966103	RKTS 8Y-RKTS 8Y-922/1 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966104	RKTS 8Y-RKTS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966105	RKTS 8Y-RKTS 8Y-922/3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966106	RKTS 8Y-RKTS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966107	RKTS 8Y-RKTS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966108	RKTS 8Y-RKTS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966301	RSTS 8Y-RSTS 8Y-922/0.3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966302	RSTS 8Y-RSTS 8Y-922/0.6 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966303	RSTS 8Y-RSTS 8Y-922/1 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966304	RSTS 8Y-RSTS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966305	RSTS 8Y-RSTS 8Y-922/3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966306	RSTS 8Y-RSTS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966307	RSTS 8Y-RSTS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966308	RSTS 8Y-RSTS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  

M12 Hybrid Double-Ended Overmolded Cordsets, 8-Pole (Y-Coded)

Technical Information

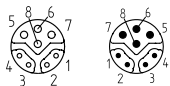
Product Description		
Order Designation	RSTS 8Y-RKHS 8Y	RSHS 8Y-RKTS 8Y
		
Description	M12 Hybrid double-ended molded cordset, male straight to female straight receptacle, 8-pole, Y-coded, 360° shielded, screw attachment transmits power and data (Fast Ethernet, 100 Mbit/s, Cat5).	M12 Hybrid double-ended molded cordset, male straight receptacle to female straight, 8-pole, Y-coded, 360° shielded, screw attachment transmits power and data (Fast Ethernet, 100 Mbit/s, Cat5).
Type Contact	Male to Female	Male to Female
Number of Contacts	8 Pole (4 + 4)	
Standard	IEC 61076-2-113	
Construction Type	Y-Coded	
Technical Data		
Operating Voltage	50 V AC/DC	
Rated Current	0.5 A (data) / 6 A (power)	
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)	
Environmental Conditions		
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)	
Temperature Range (connector)	-40 °C to +90 °C, notice derating	
Technical Drawing		



L = Standard length of cable

















































Pin Assignment

8-pin, Y-coded




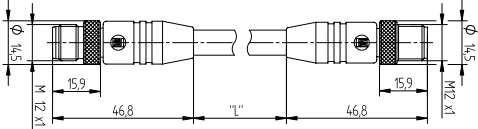
- 1 = white/orange
- 2 = orange
- 3 = white/green
- 4 = green
- 5 = blue
- 6 = white
- 7 = brown
- 8 = black

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934966201	RSTS 8Y-RKHS 8Y-922/0.3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966202	RSTS 8Y-RKHS 8Y-922/0.6 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966203	RSTS 8Y-RKHS 8Y-922/1 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966204	RSTS 8Y-RKHS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966205	RSTS 8Y-RKHS 8Y-922/3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966206	RSTS 8Y-RKHS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966207	RSTS 8Y-RKHS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966208	RSTS 8Y-RKHS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966501	RSHS 8Y-RKTS 8Y-922/0.3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966502	RSHS 8Y-RKTS 8Y-922/0.6 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966503	RSHS 8Y-RKTS 8Y-922/1 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966504	RSHS 8Y-RKTS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966505	RSHS 8Y-RKTS 8Y-922/3 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966506	RSHS 8Y-RKTS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966507	RSHS 8Y-RKTS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934966508	RSHS 8Y-RKTS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  



M12 Hybrid Double-Ended Overmolded Cordsets, 4-Pole (D-Coded) to 8-Pole (Y-Coded)

Technical Information

























Product Description	
Order Designation	RSTS 4D-RSTS 8Y
	
Description	M12 Hybrid adapter double-ended molded cordset, male straight 4-pole, D-coded to male straight, 8-pole, Y-coded, 360° shielded, screw attachment transmits data (Fast Ethernet, 100 Mbit/s, Cat5).
Type Contact	Male to Male
Number of Contacts	4 Pole (D-Coded) 8-Pole (Y-Coded)
Standard	RSTS 4D: IEC 61076-2-101 / RSTS 8Y: IEC 61076-2-113
Construction Type	D-Coded / Y-Coded
Technical Data	
Operating Voltage	50 V AC/DC
Rated Current	0.5 A (data)
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Environmental Conditions	
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)
Temperature Range (connector)	-25 °C to +80 °C
Technical Drawing	
	

L = Standard length of cable





































Pin Assignment

4-pin, D-coded	8-pin, Y-coded
 <ul style="list-style-type: none"> 1 = white/orange 2 = white/green 3 = orange 4 = green 	 <ul style="list-style-type: none"> 1 = white/orange 2 = orange 3 = white/green 4 = green 5 = n.c. 6 = n.c. 7 = n.c. 8 = n.c.

Order Information


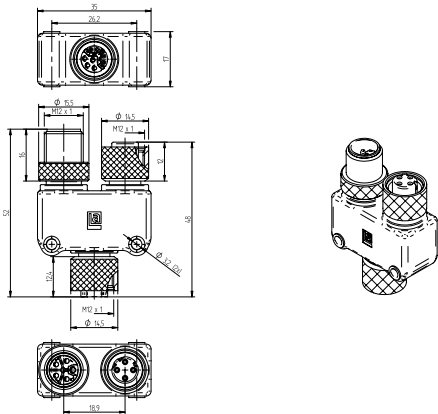
Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934967001	RSTS 4D-RSTS 8Y-484/0.3 M	4	PUR, black	AWG 26	  
934967002	RSTS 4D-RSTS 8Y-484/0.6 M	4	PUR, black	AWG 26	  
934967003	RSTS 4D-RSTS 8Y-484/1 M	4	PUR, black	AWG 26	  
934967004	RSTS 4D-RSTS 8Y-484/2 M	4	PUR, black	AWG 26	  
934967005	RSTS 4D-RSTS 8Y-484/3 M	4	PUR, black	AWG 26	  
934967006	RSTS 4D-RSTS 8Y-484/5 M	4	PUR, black	AWG 26	  
934967007	RSTS 4D-RSTS 8Y-484/10 M	4	PUR, black	AWG 26	  
934967008	RSTS 4D-RSTS 8Y-484/15 M	4	PUR, black	AWG 26	  

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934925001	RSHS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934925002	RSHS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934925003	RSHS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934925004	RSHS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934925005	RSHS 8Y-922/20 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934925006	RSHS 8Y-922/25 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934926001	RKHS 8Y-922/2 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934926002	RKHS 8Y-922/5 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934926003	RKHS 8Y-922/10 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934926004	RKHS 8Y-922/15 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934926005	RKHS 8Y-922/20 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  
934926006	RKHS 8Y-922/25 M	8	PUR, black	4x26AWG (data) and 4x0.75mm ² (power)	  

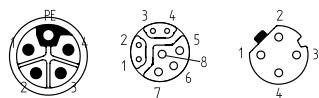
M12 Hybrid T-Connector (Power and Data), Shielded

Technical Information

Product Description	
Order Designation	ASBS M12 YLD
	
Description	M12 T-Connector, M12 female connector Y-coded with M12 male connector L-coded, and M12 female connector D-coded, 360° shielding connected to knurled screw and knurled nuts, D-coded/Hybrid-data: Fast Ethernet Hybrid Cat5 (100 Mbps).
Type Contact	Y-coded: female, 4x power + female, 4x data, L-coded: male, 4x + female, 1x PE, D-coded: female 4x
Number of Contacts	4 Pole (D-Coded) 8-Pole (Y-Coded)
Standard	Y-coded: IEC 61076-2-113 L-coded: IEC 61076-2-11 D-coded: IEC 61076-2-101
Construction Type	D-Coded / Y-Coded
Technical Data	
Operating Voltage	50 V AC/DC
Rated Current	0.5 A (data) / 6 A (power)
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Environmental Conditions	
Protection Class (IEC 60529)	IP67 (only when mated to associated counterparts)
Temperature Range (connector)	-40 °C to +90 °C
Technical Drawing	
	

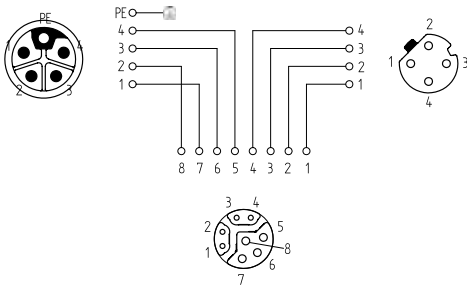
Pin Assignment

ASBS M12 YLD



Wiring Diagramm

ASBS M12 YLD



Order Information

Order No.	Order Designation	Characteristics
934928001	ASBS 2 M12 YLD	  



M12 Power Connectors



Be certain. Belden.

M12 Power Connectors

The M12 Power connector's compact design and high power transmission make it a cost-effective solution for operations that need a reliable, flexible connector. The M12 Power allows for continuous operations in the harshest environments thanks to new technology that works excellent in high temperatures.

Product Features

- **Secure** – outstanding performance in power transmission while fulfilling global standards (UL, VDE). The M12 Power is designed according to DIN EN 61076-2-111.
- **Operational reliability** – transmitting high power even at high ambient temperatures, due to a higher derating grants high up time in production.
- **Efficient** – small size allows highest flexibility in planning your application and saving space while providing cost-effective connectivity. Colored contact bearer makes it easy to identify the codings to speed up installation time.

The M12 Power connector is S-, L-, K- and T-coded and is suitable for connecting drives, control, sensing and actuators in automation control systems.

Benefits

M12 Power Connectors and Cordsets – space-saving and multi-coded (SLKT) for reliable high power transfer in harsh, high temperature environments.

- **Powerful:** 16 A up to 630 V
- **Efficient:** Small size allows highest flexibility, transmitting high power even at high temperatures while being easy to handle enabling the highest level of productivity
- **Operational reliability:** 3rd party proven quality from a. o. UL
- **Designed for use with legacy systems** due to the compatibility with 7/8" connectors
- **Flexibility:** Due to wide product variety in codings (S-, L-, K- and T-coded) and cable variants



Applications

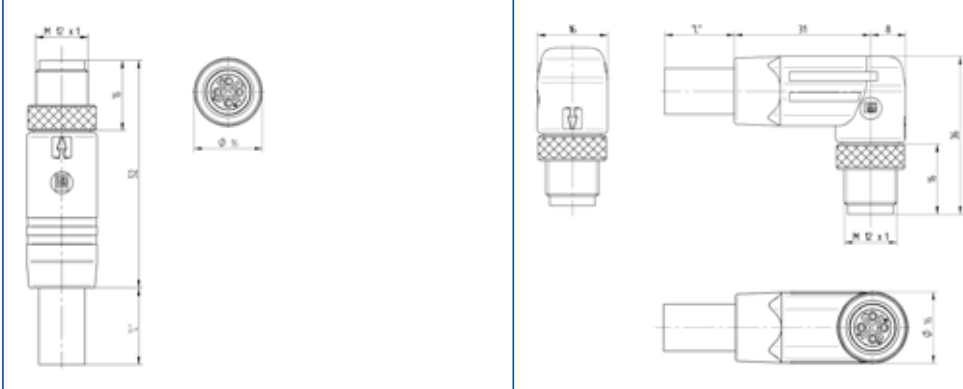
The M12's K- and S- coding is designed for AC power supplies with 630 V AC/16 A, making it the ideal solution for AC motors and drive for power connections, frequency inverters, motor control switches, auxiliary power distribution for control systems, and direct wiring of LED and conventional lighting fixture systems.

The L- and T-coding versions are designed for DC power supplies with 63 V DC/16 A, which works well for low-voltage supplies, such as power supplies for I/O modules fieldbus Ethernet components, network devices, motors and drives, and direct wiring of LED and conventional lighting fixture systems. Its small size makes it suitable for applications that require little space, like automotive, manufacturing and machine building for power transmission.

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Male

Technical Information

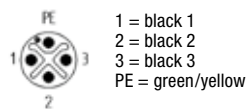
Product Description		
Order Designation	RST(S) 4S	RSWT(S) 4S
		
Description	M12 power male shielded/unshielded cordset, straight, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 4-pin, S-coded	M12 power male shielded/unshielded cordset, angled design, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 4-pin, S-coded
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Conductor Size	1.5 mm ²	
Housing Material/Grip	TPE	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi, gold-plated	
Screw Coupling Material	CuZn	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	600 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		












L = Standard length of cable

Pin Assignment

4-pin





Order Information

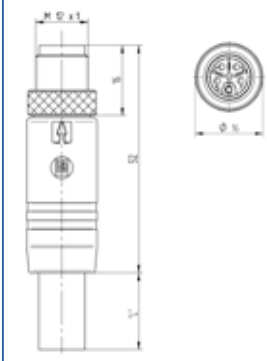
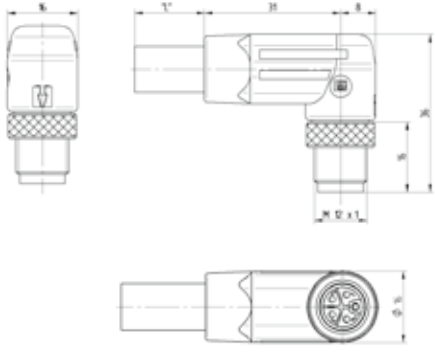
Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics	
934851001	RST 4S-703/2 M	4	PUR, black	AWG 16	Blue	  	
934851002	RST 4S-703/5 M	4	PUR, black	AWG 16	Blue		
934851003	RST 4S-703/10 M	4	PUR, black	AWG 16	Blue		
934851004	RST 4S-703/15 M	4	PUR, black	AWG 16	Blue		
934851005	RST 4S-733/2 M	4	PVC, black	AWG 16	Blue		
934851006	RST 4S-733/5 M	4	PVC, black	AWG 16	Blue		
934851007	RST 4S-733/10 M	4	PVC, black	AWG 16	Blue		
934851008	RST 4S-733/15 M	4	PVC, black	AWG 16	Blue		
934851301	RST 4S-703/2 M SW	4	PUR, black	AWG 16	Black		
934851302	RST 4S-703/5 M SW	4	PUR, black	AWG 16	Black		
934851303	RST 4S-703/10 M SW	4	PUR, black	AWG 16	Black		
934851304	RST 4S-703/15 M SW	4	PUR, black	AWG 16	Black		
934851305	RST 4S-733/2 M SW	4	PVC, black	AWG 16	Black		
934851306	RST 4S-733/5 M SW	4	PVC, black	AWG 16	Black		
934851307	RST 4S-733/10 M SW	4	PVC, black	AWG 16	Black		
934851308	RST 4S-733/15 M SW	4	PVC, black	AWG 16	Black		
934851039	RSTS 4S-700/2 M	4S	PUR, black	AWG 16	Blue		  
934851040	RSTS 4S-700/5 M	4S	PUR, black	AWG 16	Blue		
934851041	RSTS 4S-700/10 M	4S	PUR, black	AWG 16	Blue		
934851042	RSTS 4S-700/15 M	4S	PUR, black	AWG 16	Blue		
934851043	RSTS 4S-915/2 M	4S	PVC, black	AWG 16	Blue		
934851044	RSTS 4S-915/5 M	4S	PVC, black	AWG 16	Blue		
934851045	RSTS 4S-915/10 M	4S	PVC, black	AWG 16	Blue		
934851046	RSTS 4S-915/15 M	4S	PVC, black	AWG 16	Blue		
934851339	RSTS 4S-700/2 M SW	4S	PUR, black	AWG 16	Black		
934851340	RSTS 4S-700/5 M SW	4S	PUR, black	AWG 16	Black		
934851341	RSTS 4S-700/10 M SW	4S	PUR, black	AWG 16	Black		
934851342	RSTS 4S-700/15 M SW	4S	PUR, black	AWG 16	Black		
934851343	RSTS 4S-915/2 M SW	4S	PVC, black	AWG 16	Black		
934851344	RSTS 4S-915/5 M SW	4S	PVC, black	AWG 16	Black		
934851345	RSTS 4S-915/10 M SW	4S	PVC, black	AWG 16	Black		
934851346	RSTS 4S-915/15 M SW	4S	PVC, black	AWG 16	Black		
934852001	RSWT 4S-703/2 M	4	PUR, black	AWG 16	Blue	  	
934852002	RSWT 4S-703/5 M	4	PUR, black	AWG 16	Blue		
934852003	RSWT 4S-703/10 M	4	PUR, black	AWG 16	Blue		
934852004	RSWT 4S-703/15 M	4	PUR, black	AWG 16	Blue		
934852005	RSWT 4S-733/2 M	4	PVC, black	AWG 16	Blue		
934852006	RSWT 4S-733/5 M	4	PVC, black	AWG 16	Blue		
934852007	RSWT 4S-733/10 M	4	PVC, black	AWG 16	Blue		
934852008	RSWT 4S-733/15 M	4	PVC, black	AWG 16	Blue		
934852301	RSWT 4S-703/2 M SW	4	PUR, black	AWG 16	Black		
934852302	RSWT 4S-703/5 M SW	4	PUR, black	AWG 16	Black		
934852303	RSWT 4S-703/10 M SW	4	PUR, black	AWG 16	Black		
934852304	RSWT 4S-703/15 M SW	4	PUR, black	AWG 16	Black		
934852305	RSWT 4S-733/2 M SW	4	PVC, black	AWG 16	Black		
934852306	RSWT 4S-733/5 M SW	4	PVC, black	AWG 16	Black		
934852307	RSWT 4S-733/10 M SW	4	PVC, black	AWG 16	Black		
934852308	RSWT 4S-733/15 M SW	4	PVC, black	AWG 16	Black		

Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Male

Technical Information

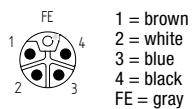
Product Description		
Order Designation	RST(S) 5L	RSWT(S) 5L
		
Description	M12 power male shielded/unshielded cordset, straight, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, L-coded	M12 power male shielded/unshielded cordset, angled design, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, L-coded
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Conductor Size	1.5 mm ² , 2.5 mm ²	
Housing Material/Grip	TPE	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Screw Coupling Material	CuZn	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	16 A	
Pollution Degree	3	

Technical Drawing	
	

L = Standard length of cable

Pin Assignment

5-pin





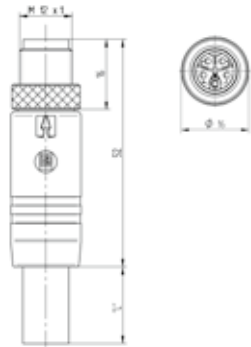
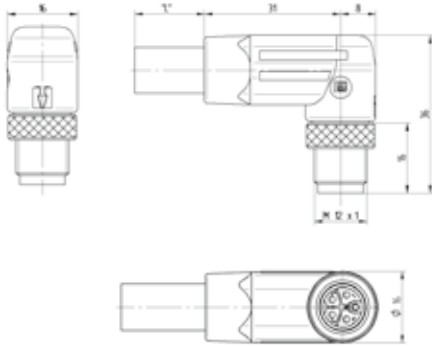
Order Information

Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics
934851075	RST 5L-949/2 M	5	PUR, gray	AWG 16	Blue	
934851076	RST 5L-949/5 M	5	PUR, gray	AWG 16	Blue	
934851077	RST 5L-949/10 M	5	PUR, gray	AWG 16	Blue	
934851078	RST 5L-949/15 M	5	PUR, gray	AWG 16	Blue	
934851079	RST 5L-950/20 M	5	PUR, gray	AWG 14	Blue	
934850080	RST 5L-950/30 M	5	PUR, gray	AWG 14	Blue	
934851081	RSTS 5L-956/2 M	5S	PUR, gray	AWG 16	Blue	
934851082	RSTS 5L-956/5 M	5S	PUR, gray	AWG 16	Blue	
934851083	RSTS 5L-956/10 M	5S	PUR, gray	AWG 16	Blue	
934851381	RST 5L-949/2 M SW	5	PUR, gray	AWG 16	Black	
934851382	RST 5L-949/5 M SW	5	PUR, gray	AWG 16	Black	
934851383	RST 5L-949/10 M SW	5	PUR, gray	AWG 16	Black	
934851384	RSTS 5L-956/2 M SW	5S	PUR, gray	AWG 16	Black	
934851385	RSTS 5L-956/5 M SW	5S	PUR, gray	AWG 16	Black	
934851386	RSTS 5L-956/10 M SW	5S	PUR, gray	AWG 16	Black	
934852075	RSWT 5L-949/2 M	5	PUR, gray	AWG 16	Blue	
934852076	RSWT 5L-949/5 M	5	PUR, gray	AWG 16	Blue	
934852077	RSWT 5L-949/10 M	5	PUR, gray	AWG 16	Blue	
934852078	RSWT 5L-949/15 M	5	PUR, gray	AWG 16	Blue	
934852081	RSWTS 5L-956/2 M	5S	PUR, gray	AWG 16	Blue	
934852082	RSWTS 5L-956/5 M	5S	PUR, gray	AWG 16	Blue	
934852083	RSWTS 5L-956/10 M	5S	PUR, gray	AWG 16	Blue	
934852381	RSWT 5L-949/2 M SW	5	PUR, gray	AWG 16	Black	
934852382	RSWT 5L-949/5 M SW	5	PUR, gray	AWG 16	Black	
934852383	RSWT 5L-949/10 M SW	5	PUR, gray	AWG 16	Black	
934852384	RSWTS 5L-956/2 M SW	5S	PUR, gray	AWG 16	Black	
934852385	RSWTS 5L-956/5 M SW	5S	PUR, gray	AWG 16	Black	
934852386	RSWTS 5L-956/10 M SW	5S	PUR, gray	AWG 16	Black	

Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Male

Technical Information

Product Description		
Order Designation	RST(S) 5K	RSWT(S) 5K
		
Description	M12 power male shielded/unshielded cordset, straight, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, K-coded	M12 power male shielded/unshielded cordset, angled design, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, K-coded
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Conductor Size	1.5 mm ²	
Housing Material/Grip	TPE	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Screw Coupling Material	CuZn	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	600 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

5-pin































1 = black 1
 2 = black 2
 3 = black 3
 4 = black 4
 PE = green/yellow

Order Information

Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics
934851017	RST 5K-911/2 M	5	PUR, black	AWG 16	Blue	
934851018	RST 5K-911/5 M	5	PUR, black	AWG 16	Blue	
934851019	RST 5K-911/10 M	5	PUR, black	AWG 16	Blue	
934851020	RST 5K-911/15 M	5	PUR, black	AWG 16	Blue	
934851021	RST 5K-735/2 M	5	PVC, black	AWG 16	Blue	
934851022	RST 5K-735/5 M	5	PVC, black	AWG 16	Blue	
934851023	RST 5K-735/10 M	5	PVC, black	AWG 16	Blue	
934851024	RST 5K-735/15 M	5	PVC, black	AWG 16	Blue	
934851025	RST 5K-736/2 M	5	PVC, black	AWG 20	Blue	
934851026	RST 5K-736/5 M	5	PVC, black	AWG 20	Blue	
934851027	RST 5K-736/10 M	5	PVC, black	AWG 20	Blue	
934851028	RST 5K-736/15 M	5	PVC, black	AWG 20	Blue	
934851055	RSTS 5K-910/2 M	5S	PUR, black	AWG 16	Blue	
934851056	RSTS 5K-910/5 M	5S	PUR, black	AWG 16	Blue	
934851057	RSTS 5K-910/10 M	5S	PUR, black	AWG 16	Blue	
934851058	RSTS 5K-910/15 M	5S	PUR, black	AWG 16	Blue	
934851059	RSTS 5K-916/2 M	5S	PVC, black	AWG 16	Blue	
934851060	RSTS 5K-916/5 M	5S	PVC, black	AWG 16	Blue	
934851061	RSTS 5K-916/10 M	5S	PVC, black	AWG 16	Blue	
934851062	RSTS 5K-916/15 M	5S	PVC, black	AWG 16	Blue	


































































Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Male *(continued)***Order Information**

Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics
934851317	RST 5K-911/2 M SW	5	PUR, black	AWG 16	Black	
934851318	RST 5K-911/5 M SW	5	PUR, black	AWG 16	Black	
934851319	RST 5K-911/10 M SW	5	PUR, black	AWG 16	Black	
934851320	RST 5K-911/15 M SW	5	PUR, black	AWG 16	Black	
934851321	RST 5K-735/2 M SW	5	PVC, black	AWG 16	Black	
934851322	RST 5K-735/5 M SW	5	PVC, black	AWG 16	Black	
934851323	RST 5K-735/10 M SW	5	PVC, black	AWG 16	Black	
934851324	RST 5K-735/15 M SW	5	PVC, black	AWG 16	Black	
934851325	RST 5K-736/2 M SW	5	PVC, black	AWG 20	Black	
934851326	RST 5K-736/5 M SW	5	PVC, black	AWG 20	Black	
934851327	RST 5K-736/10 M SW	5	PVC, black	AWG 20	Black	
934851328	RST 5K-736/15 M SW	5	PVC, black	AWG 20	Black	
934851355	RSTS 5K-910/2 M SW	5S	PUR, black	AWG 16	Black	
934851356	RSTS 5K-910/5 M SW	5S	PUR, black	AWG 16	Black	
934851357	RSTS 5K-910/10 M SW	5S	PUR, black	AWG 16	Black	
934851358	RSTS 5K-910/15 M SW	5S	PUR, black	AWG 16	Black	
934851359	RSTS 5K-916/2 M SW	5S	PVC, black	AWG 16	Black	
934851360	RSTS 5K-916/5 M SW	5S	PVC, black	AWG 16	Black	
934851361	RSTS 5K-916/10 M SW	5S	PVC, black	AWG 16	Black	
934851362	RSTS 5K-916/15 M SW	5S	PVC, black	AWG 16	Black	
934852017	RSWT 5K-911/2 M	5	PUR, black	AWG 16	Blue	
934852018	RSWT 5K-911/5 M	5	PUR, black	AWG 16	Blue	
934852019	RSWT 5K-911/10 M	5	PUR, black	AWG 16	Blue	
934852020	RSWT 5K-911/15 M	5	PUR, black	AWG 16	Blue	
934852021	RSWT 5K-735/2 M	5	PVC, black	AWG 16	Blue	
934852022	RSWT 5K-735/5 M	5	PVC, black	AWG 16	Blue	
934852023	RSWT 5K-735/10 M	5	PVC, black	AWG 16	Blue	
934852024	RSWT 5K-735/15 M	5	PVC, black	AWG 16	Blue	
934852025	RSWT 5K-736/2 M	5	PVC, black	AWG 20	Blue	
934852026	RSWT 5K-736/5 M	5	PVC, black	AWG 20	Blue	

Special circuitry available upon request



Order Information

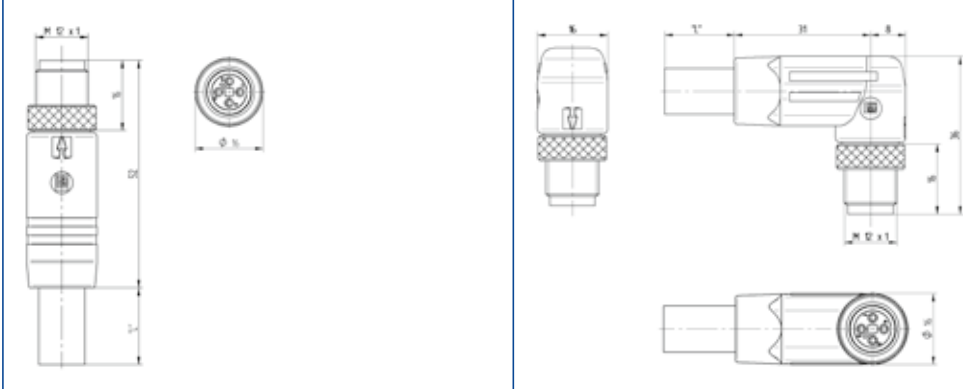
Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics
934852027	RSWT 5K-736/10 M	5	PVC, black	AWG 20	Blue	  
934852028	RSWT 5K-736/15 M	5	PVC, black	AWG 20	Blue	  
934852055	RSWTS 5K-910/2 M	5S	PUR, black	AWG 16	Blue	  
934852056	RSWTS 5K-910/5 M	5S	PUR, black	AWG 16	Blue	  
934852057	RSWTS 5K-910/10 M	5S	PUR, black	AWG 16	Blue	  
934852058	RSWTS 5K-910/15 M	5S	PUR, black	AWG 16	Blue	  
934852059	RSWTS 5K-916/2 M	5S	PVC, black	AWG 16	Blue	  
934852060	RSWTS 5K-916/5 M	5S	PVC, black	AWG 16	Blue	  
934852061	RSWTS 5K-916/10 M	5S	PVC, black	AWG 16	Blue	  
934852062	RSWTS 5K-916/15 M	5S	PVC, black	AWG 16	Blue	  
934852317	RSWT 5K-911/2 M SW	5	PUR, black	AWG 16	Black	  
934852318	RSWT 5K-911/5 M SW	5	PUR, black	AWG 16	Black	  
934852319	RSWT 5K-911/10 M SW	5	PUR, black	AWG 16	Black	  
934852320	RSWT 5K-911/15 M SW	5	PUR, black	AWG 16	Black	  
934852321	RSWT 5K-735/2 M SW	5	PVC, black	AWG 16	Black	 
934852322	RSWT 5K-735/5 M SW	5	PVC, black	AWG 16	Black	 
934852323	RSWT 5K-735/10 M SW	5	PVC, black	AWG 16	Black	 
934852324	RSWT 5K-735/15 M SW	5	PVC, black	AWG 16	Black	 
934852325	RSWT 5K-736/2 M SW	5	PVC, black	AWG 20	Black	  
934852326	RSWT 5K-736/5 M SW	5	PVC, black	AWG 20	Black	  
934852327	RSWT 5K-736/10 M SW	5	PVC, black	AWG 20	Black	  
934852328	RSWT 5K-736/15 M SW	5	PVC, black	AWG 20	Black	  
934852355	RSWTS 5K-910/2 M SW	5S	PUR, black	AWG 16	Black	  
934852356	RSWTS 5K-910/5 M SW	5S	PUR, black	AWG 16	Black	  
934852357	RSWTS 5K-910/10 M SW	5S	PUR, black	AWG 16	Black	  
934852358	RSWTS 5K-910/15 M SW	5S	PUR, black	AWG 16	Black	  
934852359	RSWTS 5K-916/2 M SW	5S	PVC, black	AWG 16	Black	  
934852360	RSWTS 5K-916/5 M SW	5S	PVC, black	AWG 16	Black	  
934852361	RSWTS 5K-916/10 M SW	5S	PVC, black	AWG 16	Black	  
934852362	RSWTS 5K-916/15 M SW	5S	PVC, black	AWG 16	Black	  

Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Male

Technical Information

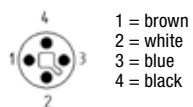
Product Description		
Order Designation	RST(S) 4T	RSWT(S) 4T
		
Description	M12 power male shielded/unshielded cordset, straight, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 4-pin, T-coded	M12 power male shielded/unshielded cordset, angled design, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 4-pin, T-coded
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Conductor Size	1.25 mm ² , 1.5 mm ²	
Housing Material/Grip	TPE	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Screw Coupling Material	CuZn	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		



































































































L = Standard length of cable

Pin Assignment

4-pin






























































Order Information

Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics
934851009	RST 4T-723/2 M	4	PUR, black	AWG 16	Blue	  
934851010	RST 4T-723/5 M	4	PUR, black	AWG 16	Blue	  
934851011	RST 4T-723/10 M	4	PUR, black	AWG 16	Blue	  
934851012	RST 4T-723/15 M	4	PUR, black	AWG 16	Blue	  
934851047	RSTS 4T-722/2 M	4S	PUR, black	AWG 16	Blue	  
934851048	RSTS 4T-722/5 M	4S	PUR, black	AWG 16	Blue	  
934851049	RSTS 4T-722/10 M	4S	PUR, black	AWG 16	Blue	  
934851050	RSTS 4T-722/15 M	4S	PUR, black	AWG 16	Blue	  
934851309	RST 4T-723/2 M SW	4	PUR, black	AWG 16	Black	  
934851310	RST 4T-723/5 M SW	4	PUR, black	AWG 16	Black	  
934851311	RST 4T-723/10 M SW	4	PUR, black	AWG 16	Black	  
934851312	RST 4T-723/15 M SW	4	PUR, black	AWG 16	Black	  
934851347	RSTS 4T-722/2 M SW	4S	PUR, black	AWG 16	Black	  
934851348	RSTS 4T-722/5 M SW	4S	PUR, black	AWG 16	Black	  
934851349	RSTS 4T-722/10 M SW	4S	PUR, black	AWG 16	Black	  
934851350	RSTS 4T-722/15 M SW	4S	PUR, black	AWG 16	Black	  
934852009	RSWT 4T-723/2 M	4	PUR, black	AWG 16	Blue	  
934852010	RSWT 4T-723/5 M	4	PUR, black	AWG 16	Blue	  
934852011	RSWT 4T-723/10 M	4	PUR, black	AWG 16	Blue	  
934852012	RSWT 4T-723/15 M	4	PUR, black	AWG 16	Blue	  
934852047	RSWTS 4T-722/2 M	4S	PUR, black	AWG 16	Blue	  
934852048	RSWTS 4T-722/5 M	4S	PUR, black	AWG 16	Blue	  
934852049	RSWTS 4T-722/10 M	4S	PUR, black	AWG 16	Blue	  
934852050	RSWTS 4T-722/15 M	4S	PUR, black	AWG 16	Blue	  
934852309	RSWT 4T-723/2 M SW	4	PUR, black	AWG 16	Black	  
934852310	RSWT 4T-723/5 M SW	4	PUR, black	AWG 16	Black	  
934852311	RSWT 4T-723/10 M SW	4	PUR, black	AWG 16	Black	  
934852312	RSWT 4T-723/15 M SW	4	PUR, black	AWG 16	Black	  
934852347	RSWTS 4T-722/2 M SW	4S	PUR, black	AWG 16	Black	  
934852348	RSWTS 4T-722/5 M SW	4S	PUR, black	AWG 16	Black	  
934852349	RSWTS 4T-722/10 M SW	4S	PUR, black	AWG 16	Black	  
934852350	RSWTS 4T-722/15 M SW	4S	PUR, black	AWG 16	Black	  

Special circuitry available upon request



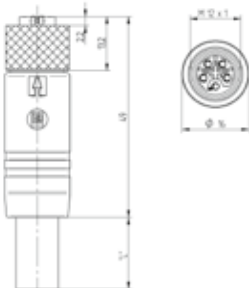
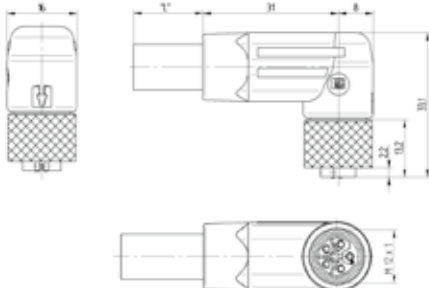
Order Information

Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics
934849001	RKT 4S-703/2 M	4	PUR, black	AWG 16	Blue	  
934849002	RKT 4S-703/5 M	4	PUR, black	AWG 16	Blue	  
934849003	RKT 4S-703/10 M	4	PUR, black	AWG 16	Blue	  
934849004	RKT 4S-703/15 M	4	PUR, black	AWG 16	Blue	  
934849005	RKT 4S-733/2 M	4	PVC, black	AWG 16	Blue	  
934849006	RKT 4S-733/5 M	4	PVC, black	AWG 16	Blue	  
934849007	RKT 4S-733/10 M	4	PVC, black	AWG 16	Blue	  
934849008	RKT 4S-733/15 M	4	PVC, black	AWG 16	Blue	  
934849301	RKT 4S-703/2 M SW	4	PUR, black	AWG 16	Black	  
934849302	RKT 4S-703/5 M SW	4	PUR, black	AWG 16	Black	  
934849303	RKT 4S-703/10 M SW	4	PUR, black	AWG 16	Black	  
934849304	RKT 4S-703/15 M SW	4	PUR, black	AWG 16	Black	  
934849305	RKT 4S-733/2 M SW	4	PVC, black	AWG 16	Black	  
934849306	RKT 4S-733/5 M SW	4	PVC, black	AWG 16	Black	  
934849307	RKT 4S-733/10 M SW	4	PVC, black	AWG 16	Black	  
934849308	RKT 4S-733/15 M SW	4	PVC, black	AWG 16	Black	  
934850001	RKWT 4S-703/2 M	4	PUR, black	AWG 16	Blue	  
934850002	RKWT 4S-703/5 M	4	PUR, black	AWG 16	Blue	  
934850003	RKWT 4S-703/10 M	4	PUR, black	AWG 16	Blue	  
934850004	RKWT 4S-703/15 M	4	PUR, black	AWG 16	Blue	  
934850005	RKWT 4S-733/2 M	4	PVC, black	AWG 16	Blue	  
934850006	RKWT 4S-733/5 M	4	PVC, black	AWG 16	Blue	  
934850007	RKWT 4S-733/10 M	4	PVC, black	AWG 16	Blue	  
934850008	RKWT 4S-733/15 M	4	PVC, black	AWG 16	Blue	  
934850301	RKWT 4S-703/2 M SW	4	PUR, black	AWG 16	Black	  
934850302	RKWT 4S-703/5 M SW	4	PUR, black	AWG 16	Black	  
934850303	RKWT 4S-703/10 M SW	4	PUR, black	AWG 16	Black	  
934850304	RKWT 4S-703/15 M SW	4	PUR, black	AWG 16	Black	  
934850305	RKWT 4S-733/2 M SW	4	PVC, black	AWG 16	Black	  
934850306	RKWT 4S-733/5 M SW	4	PVC, black	AWG 16	Black	  
934850307	RKWT 4S-733/10 M SW	4	PVC, black	AWG 16	Black	  
934850308	RKWT 4S-733/15 M SW	4	PVC, black	AWG 16	Black	  

Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Female

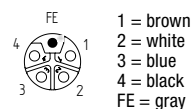
Technical Information

Product Description		
Order Designation	RKT(S) 5L	RKWT(S) 5L
		
Description	M12 power female shielded/unshielded cordset, straight, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, L-coded	M12 power female shielded/unshielded cordset, angled design, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, L-coded
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Conductor Size	1.5 mm ² , 2.5 mm ²	
Housing Material/Grip	TPE	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Screw Coupling Material	CuZn	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		
		





























L = Standard length of cable

Pin Assignment

5-pin





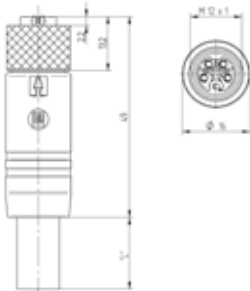
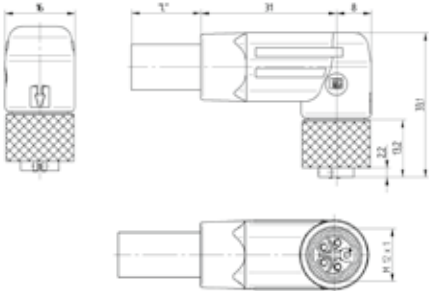
Order Information

Order No.	Order Designation	No. of Pins	Jacket/Cable Color	Cable Wire Gauge	Connector Color	Characteristics
934849075	RKT 5L-949/2 M	5	PUR, gray	AWG 16	Blue	
934849076	RKT 5L-949/5 M	5	PUR, gray	AWG 16	Blue	
934849077	RKT 5L-949/10 M	5	PUR, gray	AWG 16	Blue	
934849078	RKT 5L-949/15 M	5	PUR, gray	AWG 16	Blue	
934849079	RKT 5L-950/20 M	5	PUR, gray	AWG 14	Blue	
934849080	RKT 5L-950/30 M	5	PUR, gray	AWG 14	Blue	
934849081	RKTS 5L-956/2 M	5S	PUR, gray	AWG 16	Blue	
934849082	RKTS 5L-956/5 M	5S	PUR, gray	AWG 16	Blue	
934849083	RKTS 5L-956/10 M	5S	PUR, gray	AWG 16	Blue	
934849381	RKT 5L-949/2 M SW	5	PUR, gray	AWG 16	Black	
934849382	RKT 5L-949/5 M SW	5	PUR, gray	AWG 16	Black	
934849383	RKT 5L-949/10 M SW	5	PUR, gray	AWG 16	Black	
934849384	RKTS 5L-956/2 M SW	5S	PUR, gray	AWG 16	Black	
934849385	RKTS 5L-956/5 M SW	5S	PUR, gray	AWG 16	Black	
934849386	RKTS 5L-956/10 M SW	5S	PUR, gray	AWG 16	Black	
934850075	RKWT 5L-949/2 M	5	PUR, gray	AWG 16	Blue	
934850076	RKWT 5L-949/5 M	5	PUR, gray	AWG 16	Blue	
934850077	RKWT 5L-949/10 M	5	PUR, gray	AWG 16	Blue	
934850078	RKWT 5L-949/15 M	5	PUR, gray	AWG 16	Blue	
934850081	RKWTS 5L-956/2 M	5S	PUR, gray	AWG 16	Blue	
934850082	RKWTS 5L-956/5 M	5S	PUR, gray	AWG 16	Blue	
934850083	RKWTS 5L-956/10 M	5S	PUR, gray	AWG 16	Blue	
934850381	RKWT 5L-949/2 M SW	5	PUR, gray	AWG 16	Black	
934850382	RKWT 5L-949/5 M SW	5	PUR, gray	AWG 16	Black	
934850383	RKWT 5L-949/10 M SW	5	PUR, gray	AWG 16	Black	
934850384	RKWTS 5L-956/2 M SW	5S	PUR, gray	AWG 16	Black	
934850385	RKWTS 5L-956/5 M SW	5S	PUR, gray	AWG 16	Black	
934850386	RKWTS 5L-956/10 M SW	5S	PUR, gray	AWG 16	Black	

Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Female

Technical Information

Product Description		
Order Designation	RKT(S) 5K	RKWT(S) 5K
		
Description	M12 power female shielded/unshielded cordset, straight, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, K-coded	M12 power female shielded/unshielded cordset, angled design, with threaded joint and molded cable, knurled screw with self-locking threaded joint, Optional 360° shielding connected to knurled screw, 5-pin, K-coded
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Conductor Size	1.5 mm ²	
Housing Material/Grip	TPE	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Screw Coupling Material	CuZn	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	600 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

5-pin



1 = black 1
 2 = black 2
 3 = black 3
 4 = black 4
 PE = green/yellow

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934849017	RKT 5K-911/2 M	5	PUR, black	AWG 16	Blue	
934849018	RKT 5K-911/5 M	5	PUR, black	AWG 16	Blue	
934849019	RKT 5K-911/10 M	5	PUR, black	AWG 16	Blue	
934849020	RKT 5K-911/15 M	5	PUR, black	AWG 16	Blue	
934849021	RKT 5K-735/2 M	5	PVC, black	AWG 16	Blue	
934849022	RKT 5K-735/5 M	5	PVC, black	AWG 16	Blue	
934849023	RKT 5K-735/10 M	5	PVC, black	AWG 16	Blue	
934849024	RKT 5K-735/15 M	5	PVC, black	AWG 16	Blue	
934849025	RKT 5K-736/2 M	5	PVC, black	AWG 20	Blue	
934849026	RKT 5K-736/5 M	5	PVC, black	AWG 20	Blue	
934849027	RKT 5K-736/10 M	5	PVC, black	AWG 20	Blue	
934849028	RKT 5K-736/15 M	5	PVC, black	AWG 20	Blue	
934849055	RKTS 5K-910/2 M	5S	PUR, black	AWG 16	Blue	
934849056	RKTS 5K-910/5 M	5S	PUR, black	AWG 16	Blue	
934849057	RKTS 5K-910/10 M	5S	PUR, black	AWG 16	Blue	
934849058	RKTS 5K-910/15 M	5S	PUR, black	AWG 16	Blue	
934849059	RKTS 5K-916/2 M	5S	PVC, black	AWG 16	Blue	
934849060	RKTS 5K-916/5 M	5S	PVC, black	AWG 16	Blue	
934849061	RKTS 5K-916/10 M	5S	PVC, black	AWG 16	Blue	
934849062	RKTS 5K-916/15 M	5S	PVC, black	AWG 16	Blue	




























































































Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Power Applications – Standard Female *(continued)***Order Information**

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934849073	RKTS 5K-921/10 M	5S	PUR, black	AWG 14	Blue	
934849074	RKTS 5K-921/15 M	5S	PUR, black	AWG 14	Blue	
934849317	RKT 5K-911/2 M SW	5	PUR, black	AWG 16	Black	
934849318	RKT 5K-911/5 M SW	5	PUR, black	AWG 16	Black	
934849319	RKT 5K-911/10 M SW	5	PUR, black	AWG 16	Black	
934849320	RKT 5K-911/15 M SW	5	PUR, black	AWG 16	Black	
934849321	RKT 5K-735/2 M SW	5	PVC, black	AWG 16	Black	
934849322	RKT 5K-735/5 M SW	5	PVC, black	AWG 16	Black	
934849323	RKT 5K-735/10 M SW	5	PVC, black	AWG 16	Black	
934849324	RKT 5K-735/15 M SW	5	PVC, black	AWG 16	Black	
934849325	RKT 5K-736/2 M SW	5	PVC, black	AWG 20	Black	
934849326	RKT 5K-736/5 M SW	5	PVC, black	AWG 20	Black	
934849327	RKT 5K-736/10 M SW	5	PVC, black	AWG 20	Black	
934849328	RKT 5K-736/15 M SW	5	PVC, black	AWG 20	Black	
934849355	RKTS 5K-910/2 M SW	5S	PUR, black	AWG 16	Black	
934849356	RKTS 5K-910/5 M SW	5S	PUR, black	AWG 16	Black	
934849357	RKTS 5K-910/10 M SW	5S	PUR, black	AWG 16	Black	
934849358	RKTS 5K-910/15 M SW	5S	PUR, black	AWG 16	Black	
934849359	RKTS 5K-916/2 M SW	5S	PVC, black	AWG 16	Black	
934849360	RKTS 5K-916/5 M SW	5S	PVC, black	AWG 16	Black	
934849361	RKTS 5K-916/10 M SW	5S	PVC, black	AWG 16	Black	
934849362	RKTS 5K-916/15 M SW	5S	PVC, black	AWG 16	Black	
934850017	RKWT 5K-911/2 M	5	PUR, black	AWG 16	Blue	
934850018	RKWT 5K-911/5 M	5	PUR, black	AWG 16	Blue	
934850019	RKWT 5K-911/10 M	5	PUR, black	AWG 16	Blue	
934850020	RKWT 5K-911/15 M	5	PUR, black	AWG 16	Blue	
934850021	RKWT 5K-735/2 M	5	PVC, black	AWG 16	Blue	
934850022	RKWT 5K-735/5 M	5	PVC, black	AWG 16	Blue	
934850023	RKWT 5K-735/10 M	5	PVC, black	AWG 16	Blue	
934850024	RKWT 5K-735/15 M	5	PVC, black	AWG 16	Blue	

































































































Special circuitry available upon request

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934850025	RKWT 5K-736/2 M	5	PVC, black	AWG 20	Blue	  
934850026	RKWT 5K-736/5 M	5	PVC, black	AWG 20	Blue	  
934850027	RKWT 5K-736/10 M	5	PVC, black	AWG 20	Blue	  
934850028	RKWT 5K-736/15 M	5	PVC, black	AWG 20	Blue	  
934850055	RKWTS 5K-910/2 M	5S	PUR, black	AWG 16	Blue	  
934850056	RKWTS 5K-910/5 M	5S	PUR, black	AWG 16	Blue	  
934850057	RKWTS 5K-910/10 M	5S	PUR, black	AWG 16	Blue	  
934850058	RKWTS 5K-910/15 M	5S	PUR, black	AWG 16	Blue	  
934850059	RKWTS 5K-916/2 M	5S	PVC, black	AWG 16	Blue	  
934850060	RKWTS 5K-916/5 M	5S	PVC, black	AWG 16	Blue	  
934850061	RKWTS 5K-916/10 M	5S	PVC, black	AWG 16	Blue	  
934850062	RKWTS 5K-916/15 M	5S	PVC, black	AWG 16	Blue	  
934850317	RKWT 5K-911/2 M SW	5	PUR, black	AWG 16	Black	  
934850318	RKWT 5K-911/5 M SW	5	PUR, black	AWG 16	Black	  
934850319	RKWT 5K-911/10 M SW	5	PUR, black	AWG 16	Black	  
934850320	RKWT 5K-911/15 M SW	5	PUR, black	AWG 16	Black	  
934850321	RKWT 5K-735/2 M SW	5	PVC, black	AWG 16	Black	 
934850322	RKWT 5K-735/5 M SW	5	PVC, black	AWG 16	Black	 
934850323	RKWT 5K-735/10 M SW	5	PVC, black	AWG 16	Black	 
934850324	RKWT 5K-735/15 M SW	5	PVC, black	AWG 16	Black	 
934850325	RKWT 5K-736/2 M SW	5	PVC, black	AWG 20	Black	  
934850326	RKWT 5K-736/5 M SW	5	PVC, black	AWG 20	Black	  
934850327	RKWT 5K-736/10 M SW	5	PVC, black	AWG 20	Black	  
934850328	RKWT 5K-736/15 M SW	5	PVC, black	AWG 20	Black	  
934850355	RKWTS 5K-910/2 M SW	5S	PUR, black	AWG 16	Black	  
934850356	RKWTS 5K-910/5 M SW	5S	PUR, black	AWG 16	Black	  
934850357	RKWTS 5K-910/10 M SW	5S	PUR, black	AWG 16	Black	  
934850358	RKWTS 5K-910/15 M SW	5S	PUR, black	AWG 16	Black	  
934850359	RKWTS 5K-916/2 M SW	5S	PVC, black	AWG 16	Black	  
934850360	RKWTS 5K-916/5 M SW	5S	PVC, black	AWG 16	Black	  
934850361	RKWTS 5K-916/10 M SW	5S	PVC, black	AWG 16	Black	  
934850362	RKWTS 5K-916/15 M SW	5S	PVC, black	AWG 16	Black	  

Special circuitry available upon request


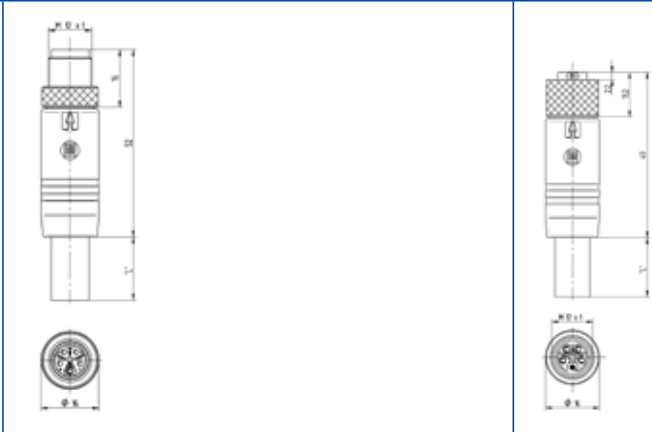
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934849009	RKT 4T-723/2 M	4	PUR, black	AWG 16	Blue	  
934849010	RKT 4T-723/5 M	4	PUR, black	AWG 16	Blue	  
934849011	RKT 4T-723/10 M	4	PUR, black	AWG 16	Blue	  
934849012	RKT 4T-723/15 M	4	PUR, black	AWG 16	Blue	  
934849047	RKTS 4T-722/2 M	4S	PUR, black	AWG 16	Blue	  
934849048	RKTS 4T-722/5 M	4S	PUR, black	AWG 16	Blue	  
934849049	RKTS 4T-722/10 M	4S	PUR, black	AWG 16	Blue	  
934849050	RKTS 4T-722/15 M	4S	PUR, black	AWG 16	Blue	  
934849309	RKT 4T-723/2 M SW	4	PUR, black	AWG 16	Black	  
934849310	RKT 4T-723/5 M SW	4	PUR, black	AWG 16	Black	  
934849311	RKT 4T-723/10 M SW	4	PUR, black	AWG 16	Black	  
934849312	RKT 4T-723/15 M SW	4	PUR, black	AWG 16	Black	  
934849347	RKTS 4T-722/2 M SW	4S	PUR, black	AWG 16	Black	  
934849348	RKTS 4T-722/5 M SW	4S	PUR, black	AWG 16	Black	  
934849349	RKTS 4T-722/10 M SW	4S	PUR, black	AWG 16	Black	  
934849350	RKTS 4T-722/15 M SW	4S	PUR, black	AWG 16	Black	  
934850009	RKWT 4T-723/2 M	4	PUR, black	AWG 16	Blue	  
934850010	RKWT 4T-723/5 M	4	PUR, black	AWG 16	Blue	  
934850011	RKWT 4T-723/10 M	4	PUR, black	AWG 16	Blue	  
934850012	RKWT 4T-723/15 M	4	PUR, black	AWG 16	Blue	  
934850047	RKWTS 4T-722/2 M	4S	PUR, black	AWG 16	Blue	  
934850048	RKWTS 4T-722/5 M	4S	PUR, black	AWG 16	Blue	  
934850049	RKWTS 4T-722/10 M	4S	PUR, black	AWG 16	Blue	  
934850050	RKWTS 4T-722/15 M	4S	PUR, black	AWG 16	Blue	  
934850309	RKWT 4T-723/2 M SW	4	PUR, black	AWG 16	Black	  
934850310	RKWT 4T-723/5 M SW	4	PUR, black	AWG 16	Black	  
934850311	RKWT 4T-723/10 M SW	4	PUR, black	AWG 16	Black	  
934850312	RKWT 4T-723/15 M SW	4	PUR, black	AWG 16	Black	  
934850347	RKWTS 4T-722/2 M SW	4S	PUR, black	AWG 16	Black	  
934850348	RKWTS 4T-722/5 M SW	4S	PUR, black	AWG 16	Black	  
934850349	RKWTS 4T-722/10 M SW	4S	PUR, black	AWG 16	Black	  
934850350	RKWTS 4T-722/15 M SW	4S	PUR, black	AWG 16	Black	  

Special circuitry available upon request

M12 Power Double-Ended Cordsets, S-coding, 4-Pole with or without Shielding, Blue or Black Overmold

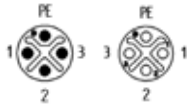
Technical Information

Product Description		
Order Designation	RST 4S-RKT 4S-XXX/...M	RSTS 4S-RKTS 4S XXX/...M
		
Description	M12 power double-ended cordset male straight to female straight, 4-pins, S-coded, 600 V AC/DC, blue or black overmold.	M12 power double-ended cordset male straight to female straight, 4-pins, S-coded, shielded, 600 V AC/DC, blue or black overmold.
Type Contact	Male to Female	
Number of Contacts	4 (3+PE), S-Coding	4 (3+PE), S-Coding (Shielded)
Standard	IEC 61076-2-111	
Construction Type	S-Coded	
Conductor Size	1.5 mm ²	
Technical Data		
Operating Voltage	600 V AC/DC	
Rated Current	16 A (1.5 mm ² and 2.5 mm ²)	
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)	
Environmental Conditions		
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)	
Temperature Range (Connector)	-40 °C to +125 °C	
Approvals		
VDE	DIN EN 61984: in preparation	
UL	S-Coding (Pending)	
Cable Specifications		
Jacket Material/Color/Gauge	703: PUR, halogen-Free, Black, 16AWG 733: PVC Black, 16AWG	700: PUR, Halogen-Free, Black, 16AWG
Standard Lengths	2M, 5M, 10M	
Technical Drawing		
		

L = Standard length of control line

Pin Assignment

4-pin, S-coded




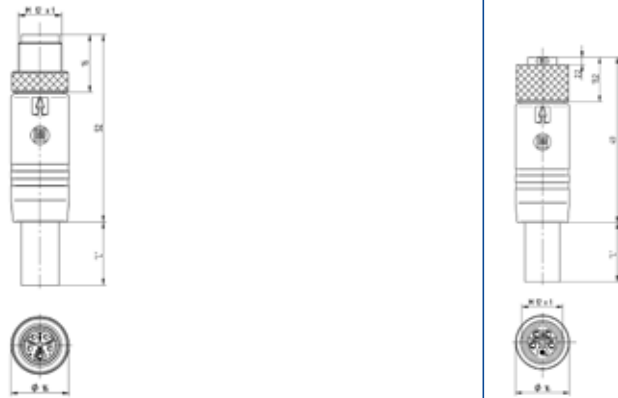
1 = black
2 = black
3 = black
PE = green/yellow

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934853001	RST 4S-RKT 4S-703/2 M	4	PUR, black	AWG 16	Blue	
934853002	RST 4S-RKT 4S-703/5 M	4	PUR, black	AWG 16	Blue	
934853003	RST 4S-RKT 4S-703/10 M	4	PUR, black	AWG 16	Blue	
934853004	RST 4S-RKT 4S-733/2 M	4	PVC, black	AWG 16	Blue	
934853005	RST 4S-RKT 4S-733/5 M	4	PVC, black	AWG 16	Blue	
934853006	RST 4S-RKT 4S-733/10 M	4	PVC, black	AWG 16	Blue	
934853301	RST 4S-RKT 4S-703/2 M SW	4	PUR, black	AWG 16	Black	
934853302	RST 4S-RKT 4S-703/5 M SW	4	PUR, black	AWG 16	Black	
934853303	RST 4S-RKT 4S-703/10 M SW	4	PUR, black	AWG 16	Black	
934853304	RST 4S-RKT 4S-733/2 M SW	4	PVC, black	AWG 16	Black	
934853305	RST 4S-RKT 4S-733/5 M SW	4	PVC, black	AWG 16	Black	
934853306	RST 4S-RKT 4S-733/10 M SW	4	PVC, black	AWG 16	Black	
934853081	RSTS 4S-RKTS 4S-700/2 M	4S	PUR, black	AWG 16	Blue	
934853082	RSTS 4S-RKTS 4S-700/5 M	4S	PUR, black	AWG 16	Blue	
934853083	RSTS 4S-RKTS 4S-700/10 M	4S	PUR, black	AWG 16	Blue	
934853381	RSTS 4S-RKTS 4S-700/2 M SW	4S	PUR, black	AWG 16	Black	
934853382	RSTS 4S-RKTS 4S-700/5 M SW	4S	PUR, black	AWG 16	Black	
934853383	RSTS 4S-RKTS 4S-700/10 M SW	4S	PUR, black	AWG 16	Black	

M12 Power Double-Ended Cordsets, T-coding, 4-Pole, Blue or Black Overmold

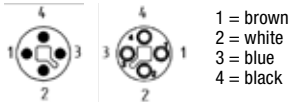
Technical Information

Product Description		
Order Designation	RST 4T-RKT 4T-XXX/...M	RSTS 4T-RKTS 4T XXX/...M
		
Description	M12 power double-ended cordset male straight to female straight, 4-pins, T-coded, 50 V AC/60 V DC, blue or black overmold.	M12 power double-ended cordset male straight to female straight, 4-pins, T-coded, shielded, 50 V AC/60 V DC, blue or black overmold.
Type Contact	Male to Female	
Number of Contacts	4 (3+PE), T-Coding	4 (3+PE), T-Coding (Shielded)
Standard	IEC 61076-2-111	
Construction Type	T-Coded	
Conductor Size	1.5 mm ²	
Technical Data		
Operating Voltage	50 V AC/60 V DC	
Rated Current	16 A (1.5 mm ² and 2.5 mm ²)	
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)	
Environmental Conditions		
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)	
Temperature Range (Connector)	-40 °C to +125 °C	
Approvals		
VDE	DIN EN 61984: in preparation	
UL	T-Coding (Pending)	
Cable Specifications		
Jacket Material/Color/Gauge	723: PUR, halogen-Free, Black, 16AWG	722: PUR, Halogen-Free, Black, 16AWG
Standard Lengths	0.3M, 0.6M, 1M, 2M, 5M, 10M	
Technical Drawing		
		

L = Standard length of control line

Pin Assignment

4-pin, T-coded


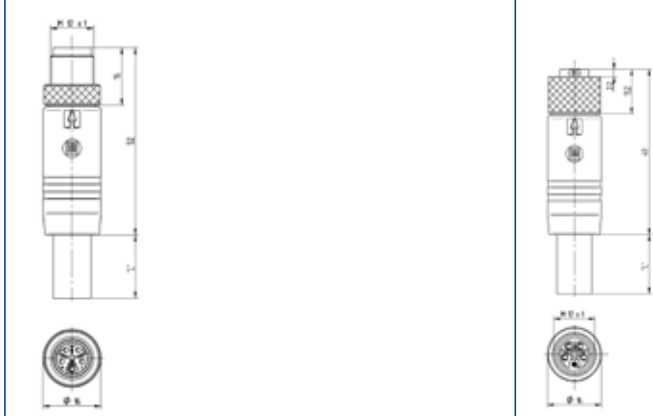


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934853013	RST 4T-RKT 4T-723/0.3 M	4	PUR, black	AWG 16	Blue	
934853014	RST 4T-RKT 4T-723/0.6 M	4	PUR, black	AWG 16	Blue	
934853015	RST 4T-RKT 4T-723/1 M	4	PUR, black	AWG 16	Blue	
934853016	RST 4T-RKT 4T-723/2 M	4	PUR, black	AWG 16	Blue	
934853017	RST 4T-RKT 4T-723/5 M	4	PUR, black	AWG 16	Blue	
934853018	RST 4T-RKT 4T-723/10 M	4	PUR, black	AWG 16	Blue	
934853313	RST 4T-RKT 4T-723/0.3 M SW	4	PUR, black	AWG 16	Black	
934853314	RST 4T-RKT 4T-723/0.6 M SW	4	PUR, black	AWG 16	Black	
934853315	RST 4T-RKT 4T-723/1 M SW	4	PUR, black	AWG 16	Black	
934853316	RST 4T-RKT 4T-723/2 M SW	4	PUR, black	AWG 16	Black	
934853317	RST 4T-RKT 4T-723/5 M SW	4	PUR, black	AWG 16	Black	
934853318	RST 4T-RKT 4T-723/10 M SW	4	PUR, black	AWG 16	Black	
934853093	RSTS 4T-RKTS 4T-722/0.3 M	4S	PUR, black	AWG 16	Blue	
934853094	RSTS 4T-RKTS 4T-722/0.6 M	4S	PUR, black	AWG 16	Blue	
934853095	RSTS 4T-RKTS 4T-722/1 M	4S	PUR, black	AWG 16	Blue	
934853096	RSTS 4T-RKTS 4T-722/2 M	4S	PUR, black	AWG 16	Blue	
934853097	RSTS 4T-RKTS 4T-722/5 M	4S	PUR, black	AWG 16	Blue	
934853098	RSTS 4T-RKTS 4T-722/10 M	4S	PUR, black	AWG 16	Blue	
934853393	RSTS 4T-RKTS 4T-722/0.3 M SW	4S	PUR, black	AWG 16	Black	
934853394	RSTS 4T-RKTS 4T-722/0.6 M SW	4S	PUR, black	AWG 16	Black	
934853395	RSTS 4T-RKTS 4T-722/1 M SW	4S	PUR, black	AWG 16	Black	
934853396	RSTS 4T-RKTS 4T-722/2 M SW	4S	PUR, black	AWG 16	Black	
934853397	RSTS 4T-RKTS 4T-722/5 M SW	4S	PUR, black	AWG 16	Black	
934853398	RSTS 4T-RKTS 4T-722/10 M SW	4S	PUR, black	AWG 16	Black	

M12 Power Double-Ended Cordsets, K-coding, 5-Pole, Blue or Black Overmold

Technical Information

Product Description		
Order Designation	RST 5K-RKT 5K-XXX/...M	RSTS 5K-RKTS 5K XXX/...M
		
Description	M12 power double-ended cordset male straight to female straight, 5-pins, K-coded, 600 V AC/DC, blue or black overmold.	M12 power double-ended cordset male straight to female straight, 5-pins, K-coded, shielded, 600 V AC/DC, blue or black overmold.
Type Contact	Male to Female	
Number of Contacts	5 (4+PE), K-Coding	5 (4+PE), K-Coding (Shielded)
Standard	IEC 61076-2-111	
Construction Type	K-Coded	
Conductor Size	1.5 mm ²	
Technical Data		
Operating Voltage	600 V AC/DC	
Rated Current	16 A (1.5 mm ² and 2.5 mm ²)	
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)	
Environmental Conditions		
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)	
Temperature Range (Connector)	-40 °C to +125 °C	
Approvals		
VDE	DIN EN 61984: in preparation	
UL	K-Coding (Pending)	
Cable Specifications		
Jacket Material/Color/Gauge	735: PVC, Black, 16AWG 736: PVC, Black, 20AWG 911: PUR, Halogen-Free, Black, 16AWG	910: PUR, Halogen-Free, Black, 16AWG
Standard Lengths	2M, 5M, 10M	
Technical Drawing		
		

L = Standard length of control line

Pin Assignment

5-pin, K-coded




1 = black
2 = black
3 = black
4 = black
PE = green/yellow

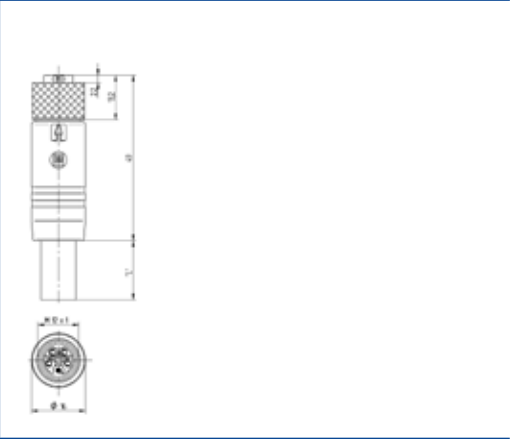
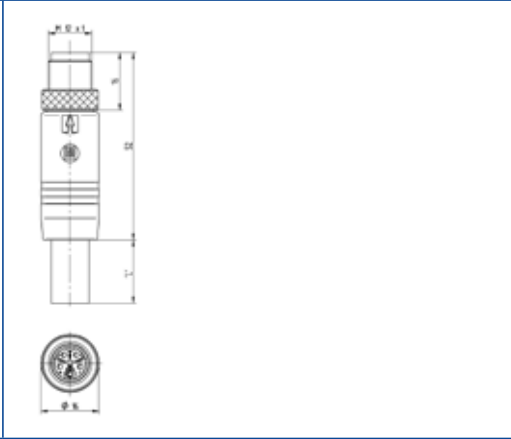
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934853040	RST 5K-RKT 5K-735/2 M	5	PVC, black	AWG 16	Blue	
934853041	RST 5K-RKT 5K-735/5 M	5	PVC, black	AWG 16	Blue	
934853042	RST 5K-RKT 5K-735/10 M	5	PVC, black	AWG 16	Blue	
934853043	RST 5K-RKT 5K-736/2 M	5	PVC, black	AWG 20	Blue	
934853044	RST 5K-RKT 5K-736/5 M	5	PVC, black	AWG 20	Blue	
934853045	RST 5K-RKT 5K-736/10 M	5	PVC, black	AWG 20	Blue	
934853037	RST 5K-RKT 5K-911/2 M	5	PUR, black	AWG 16	Black	
934853038	RST 5K-RKT 5K-911/5 M	5	PUR, black	AWG 16	Black	
934853039	RST 5K-RKT 5K-911/10 M	5	PUR, black	AWG 16	Black	
934853340	RST 5K-RKT 5K-735/2 M SW	5	PVC, black	AWG 16	Black	
934853341	RST 5K-RKT 5K-735/5 M SW	5	PVC, black	AWG 16	Black	
934853342	RST 5K-RKT 5K-735/10 M SW	5	PVC, black	AWG 16	Black	
934853343	RST 5K-RKT 5K-736/2 M SW	5	PVC, black	AWG 20	Blue	
934853344	RST 5K-RKT 5K-736/5 M SW	5	PVC, black	AWG 20	Blue	
934853345	RST 5K-RKT 5K-736/10 M SW	5	PVC, black	AWG 20	Blue	
934853337	RST 5K-RKT 5K-911/2 M SW	5	PUR, black	AWG 16	Blue	
934853338	RST 5K-RKT 5K-911/5 M SW	5	PUR, black	AWG 16	Blue	
934853339	RST 5K-RKT 5K-911/10 M SW	5	PUR, black	AWG 16	Blue	
934853117	RSTS 5K-RKTS 5K-910/2 M	5S	PUR, black	AWG 16	Black	
934853118	RSTS 5K-RKTS 5K-910/5 M	5S	PUR, black	AWG 16	Black	
934853119	RSTS 5K-RKTS 5K-910/10 M	5S	PUR, black	AWG 16	Black	
934853417	RSTS 5K-RKTS 5K-910/2 M SW	5S	PUR, black	AWG 16	Black	
934853418	RSTS 5K-RKTS 5K-910/5 M SW	5S	PUR, black	AWG 16	Black	
934853419	RSTS 5K-RKTS 5K-910/10 M SW	5S	PUR, black	AWG 16	Black	

M12 Power Double-Ended Cordsets, L-coding, 5-Pole, Blue or Black Overmold

Technical Information

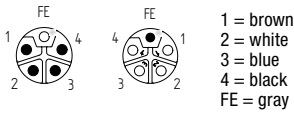
Product Description		
Order Designation	RST 5L-RKT 5L-XXX/...M	RST5 5L-RKTS 5L XXX/...M
		
Description	M12 power double-ended cordset male straight to female straight, 5-pins, L-coded, 50 V AC/60 V DC, blue or black overmold.	M12 power double-ended cordset male straight-female straight, 5-pins, L-coded, shielded, 50 V AC/60 V DC, blue or black overmold.
Type Contact	Male to Female	
Number of Contacts	5 (4+PE), L-Coding	5 (4+PE), L-Coding (Shielded)
Standard	IEC 61076-2-111	
Construction Type	L-Coded	
Conductor Size	1.5 mm ²	
Technical Data		
Operating Voltage	50 V AC/60 V DC	
Rated Current	16 A (1.5 mm ² and 2.5 mm ²)	
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)	
Environmental Conditions		
Protection Class (IEC 60529)	IP65, IP67, IP69K (only when mated to associated counterparts)	
Temperature Range (Connector)	-40 °C to +125 °C	
Approvals		
VDE	DIN EN 61984: in preparation	
UL	L-coding: UL 2238, E315587	
Cable Specifications		
Jacket Material/Color/Gauge	949: PUR Halogen-Free, Gray, 16AWG	956: PUR Halogen-Free, Gray, 16AWG
Standard Lengths	0.3M, 0.6M, 1M, 2M, 5M, 10M	
Technical Drawing		



L = Standard length of control line

Pin Assignment

5-pin, L-coded



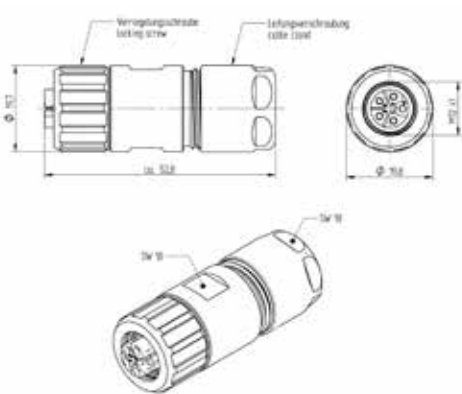
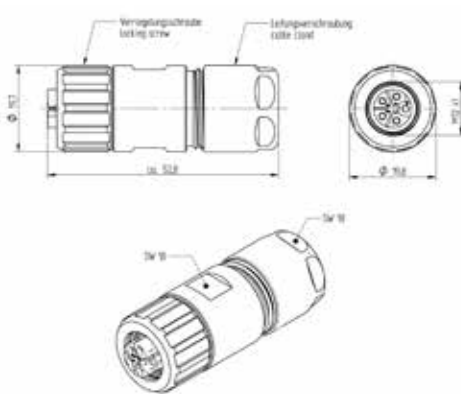


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Cable Wire Gauge	Connector Color	Characteristics
934853163	RST 5L-RKT 5L-949/0.3 M	5	PUR, gray	AWG 16	Blue	
934853164	RST 5L-RKT 5L-949/0.6 M	5	PUR, gray	AWG 16	Blue	
934853165	RST 5L-RKT 5L-949/1 M	5	PUR, gray	AWG 16	Blue	
934853166	RST 5L-RKT 5L-949/2 M	5	PUR, gray	AWG 16	Blue	
934853167	RST 5L-RKT 5L-949/5 M	5	PUR, gray	AWG 16	Blue	
934853168	RST 5L-RKT 5L-949/10 M	5	PUR, gray	AWG 16	Blue	
934853481	RST 5L-RKT 5L-949/0.3 M SW	5	PUR, gray	AWG 16	Black	
934853482	RST 5L-RKT 5L-949/0.6 M SW	5	PUR, gray	AWG 16	Black	
934853483	RST 5L-RKT 5L-949/1 M SW	5	PUR, gray	AWG 16	Black	
934853484	RST 5L-RKT 5L-949/2 M SW	5	PUR, gray	AWG 16	Black	
934853181	RSTS 5L-RKTS 5L-956/0.3 M	5S	PUR, gray	AWG 16	Blue	
934853182	RSTS 5L-RKTS 5L-956/0.6 M	5S	PUR, gray	AWG 16	Blue	
934853183	RSTS 5L-RKTS 5L-956/1 M	5S	PUR, gray	AWG 16	Blue	
934853184	RSTS 5L-RKTS 5L-956/2 M	5S	PUR, gray	AWG 16	Blue	
934853489	RSTS 5L-RKTS 5L-956/0.3 M SW	5S	PUR, gray	AWG 16	Black	
934853490	RSTS 5L-RKTS 5L-956/0.6 M SW	5S	PUR, gray	AWG 16	Black	
934853491	RSTS 5L-RKTS 5L-956/1 M SW	5S	PUR, gray	AWG 16	Black	
934853492	RSTS 5L-RKTS 5L-956/2 M SW	5S	PUR, gray	AWG 16	Black	

M12 Field Attachable Connectors for Power Applications – Standard Female

Technical Information

Product Description		
Order Designation	RKCCS 5K/11	RKCCS 5L/11
		
Description	Field attachable connector, M12 power female connector, K-coded, straight, with screw coupling, assembly using crimp-type terminals, strain relief via clamping cage	Field attachable connector, M12 power female connector, L-coded, straight, with screw coupling, assembly using crimp-type terminals, strain relief via clamping cage
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	VDE, UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (note derating)	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	600 V AC/DC	50 V AC/60 V DC
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment

5-pin, K-coded















1 = black 1
2 = black 2
3 = black 3
4 = black 4
PE = green/yellow

5-pin, L-coded



1 = black 1
2 = black 2
3 = black 3
4 = black 4
PE = green/yellow



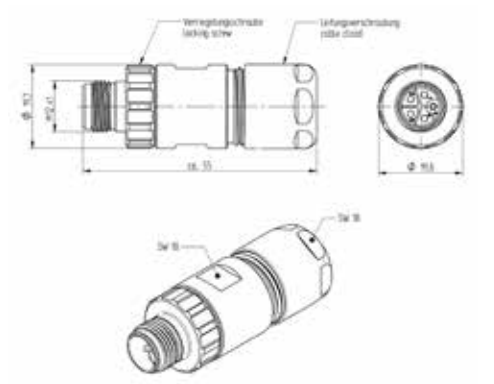
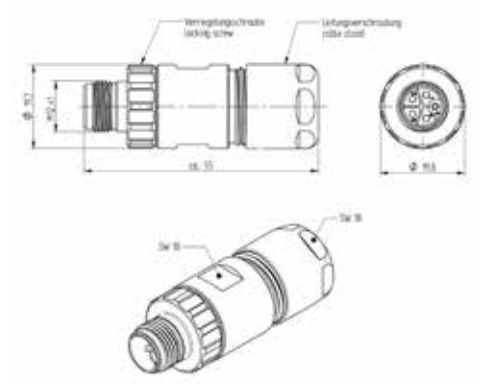
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Connector Design	Conductor Size	Cable Range	Characteristics
934935001	RKCCS 5K/11 0.75	5	Crimp	Straight	0.75 mm ²	Ø 3.0 mm to 11.0 mm	 
934935002	RKCCS 5K/11 1.5	5	Crimp	Straight	1.5 mm ²	Ø 3.0 mm to 11.0 mm	 
934935003	RKCCS 5K/11 2.5	5	Crimp	Straight	2.5 mm ²	Ø 3.0 mm to 11.0 mm	 
934935004	RKCCS 5L/11 0.75	5	Crimp	Straight	0.75 mm ²	Ø 3.0 mm to 11.0 mm	 
934935005	RKCCS 5L/11 1.5	5	Crimp	Straight	1.5 mm ²	Ø 3.0 mm to 11.0 mm	 
934935006	RKCCS 5L/11 2.5	5	Crimp	Straight	2.5 mm ²	Ø 3.0 mm to 11.0 mm	 

Conversion table mm² to AWG on page 20.

M12 Field Attachable Connectors for Power Applications – Standard Male













Technical Information

Product Description		
Order Designation	RSCCS 5K/11	RSCCS 5L/11
		
Description	Field attachable connector, M12 power male connector, K-coded, straight, with screw coupling, assembly using crimp-type terminals, strain relief via clamping cage	Field attachable connector, M12 power male connector, L-coded, straight, with screw coupling, assembly using crimp-type terminals, strain relief via clamping cage
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-111	
Approvals	VDE, UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (note derating)	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	600 V AC/DC	50 V AC/60 V DC
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment

5-pin, K-coded		5-pin, L-coded	
	1 = black 1 2 = black 2 3 = black 3 4 = black 4 PE = green/yellow		1 = black 1 2 = black 2 3 = black 3 4 = black 4 PE = green/yellow



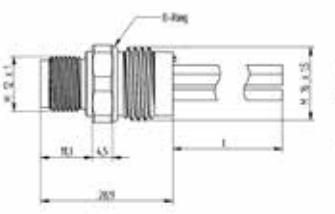
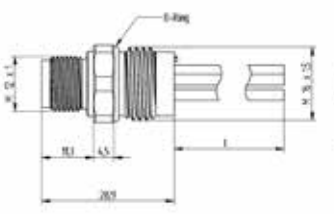
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Connector Design	Conductor Size	Cable Range	Characteristics
934937001	RSCCS 5K/11 0.75	5	Crimp	Straight	0.75 mm ²	Ø 3.0 mm to 11.0 mm	 
934937002	RSCCS 5K/11 1.5	5	Crimp	Straight	1.5 mm ²	Ø 3.0 mm to 11.0 mm	 
934937003	RSCCS 5K/11 2.5	5	Crimp	Straight	2.5 mm ²	Ø 3.0 mm to 11.0 mm	 
934937004	RSCCS 5L/11 0.75	5	Crimp	Straight	0.75 mm ²	Ø 3.0 mm to 11.0 mm	 
934937005	RSCCS 5L/11 1.5	5	Crimp	Straight	1.5 mm ²	Ø 3.0 mm to 11.0 mm	 
934937006	RSCCS 5L/11 2.5	5	Crimp	Straight	2.5 mm ²	Ø 3.0 mm to 11.0 mm	 

Conversion table mm² to AWG on page 20.

M12 Receptable Connectors for Power Applications – Front Mounting

Technical Information

Product Description		
Order Designation	RSFMS	RKFMS
		
Description	Male receptacle front mounting with wires, L- and K-coded, 5-pin	Female receptacle front mounting with wires, L- and K-coded, 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61076-2-111	
Approvals	VDE, UL (pending)	
Technical Data		
Ambient Temperature	-40 °C to +125 °C (note derating)	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT GF	
Contact Material/Surface Finish	CuNi	
Mechanical Data		
Degree of Protection	IP65, IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	K-coded 600 V AC/DC, L-coded 50 V AC/60 V DC	
Rated Current	16 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable





Pin Assignment RSFMS

5-pin, K-coded	5-pin, L-coded
 <p>1 = black 1 2 = black 2 3 = black 3 4 = black 4 PE = green/yellow</p>	 <p>1 = brown 2 = white 3 = blue 4 = black FE = gray</p>

Pin Assignment RKFMS

5-pin, K-coded	5-pin, L-coded
 <p>1 = black 1 2 = black 2 3 = black 3 4 = black 4 PE = green/yellow</p>	 <p>1 = brown 2 = white 3 = blue 4 = black FE = gray</p>

Order Information



Order No.	Order Designation	No. of Pins	Terminal Type	Connector Design	Conductor Size	Cable Length	Characteristics
934949101	RSFMS 5K/0.5 M	5	Crimp	Front Mounting	1.5 mm ²	0.5 m	
934949102	RSFMS 5L/0.5 M	5	Crimp	Front Mounting	1.5 mm ²	0.5 m	
934948101	RKFMS 5K/0.5 M	5	Crimp	Front Mounting	1.5 mm ²	0.5 m	
934948102	RKFMS 5L/0.5 M	5	Crimp	Front Mounting	1.5 mm ²	0.5 m	

Conversion table mm² to AWG on page 20.

Pin Assignment RSFFS

5-pin, K-coded		5-pin, L-coded	
	1 = black 1 2 = black 2 3 = black 3 4 = black 4 PE = green/yellow		1 = brown 2 = white 3 = blue 4 = black FE = gray

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Connector Design	Conductor Size	Cable Length	Characteristics
934949001	RSFFS 5K/0.5 M	5	Crimp	With Flange	1.5 mm ²	0.5 m	
934949002	RSFFS 5L/0.5 M	5	Crimp	With Flange	1.5 mm ²	0.5 m	

Conversion table mm² to AWG on page 20.



M8 5-Pole Connectors

Be certain. Belden.



M8 5-Pole Connectors

Designed for the IIoT, these M8 5-pole B-coded cordsets offer a robust solution to connectivity and communications requirements. The cordsets deliver greater power in a smaller, lighter size, and have both snap connections to provide fast installation and screw connections to increase protection in harsh environments.



These cordsets make it simple and easy for you to meet the highest demands for installation speed and flexibility. In just seconds, you can connect sensors, compact actuators, motors, cabinets and more with these cordsets. You're even able to connect the newest generation of I/O link sensors Class A and B.

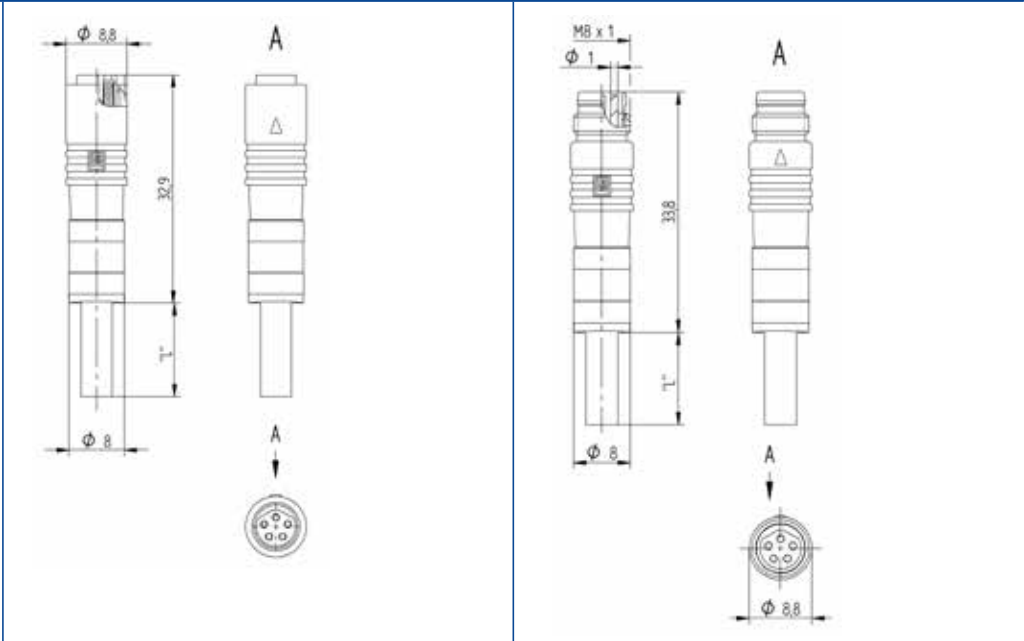
The T-splitter accessory enables you to split signals from a single I/O block to maximize use, a feature that's especially valuable for connecting interfaces in environments where multiple end devices need to be joined in space restricted areas. Increased current and voltage ratings, and adjustable cable lengths and the industry's only IEC 61076-2-104 certification for preventing mismatching differentiate these cordsets from any other product available on the market.

The M8 5-pole B-coded cordsets are available in both snap and screw connection, male and female, straight and angled, and molded and receptacle designs, delivering the highest application flexibility on the market, especially when combined with the full Lumberg Automation LiON-Power system. Designed to meet the increasing requirements of IIoT, this system will revolutionize connectivity in industrial environments as the industry's most robust and easy to handle solution.

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Straight Female and Male with Snap-in Coupling Nut for Actuators and Sensors

Technical Information

Product Description		
Type	RKM 5	RSM 5
		
Description	Actuator/sensor single-ended cordset, M8 female connector, straight, with snap-in coupling and overmolded cable, 5-pin, B-coding	Actuator/sensor single-ended cordset, M8 male connector, straight, with snap-in coupling and overmolded cable, 5-pin, B-coding
RoHS (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 to +90°C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	TPU (snap) / CuZn	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC; UL: 30 V AC/DC	
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)	
Pollution Degree	3	
Technical Drawing		







































L = Standard length of cable

Pin Assignment

M8, female, 5-poles	M8, male, 5-poles
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray



















Order Information



















Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934871001	RKM 5-671/2 M	5	PVC, black	0.34 mm ²	
934871002	RKM 5-671/5 M	5	PVC, black	0.34 mm ²	
934871003	RKM 5-671/10 M	5	PVC, black	0.34 mm ²	
934871004	RKM 5-671/15 M	5	PVC, black	0.34 mm ²	
934871005	RKM 5-671/20 M	5	PVC, black	0.34 mm ²	
934871006	RKM 5-671/25 M	5	PVC, black	0.34 mm ²	
934871007	RKM 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871008	RKM 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871009	RKM 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871010	RKM 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871011	RKM 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871012	RKM 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871013	RKM 5-507/2 M	5	PVC, black	0.25 mm ²	
934871014	RKM 5-507/5 M	5	PVC, black	0.25 mm ²	
934871015	RKM 5-507/10 M	5	PVC, black	0.25 mm ²	
934871016	RKM 5-507/15 M	5	PVC, black	0.25 mm ²	
934871017	RKM 5-507/20 M	5	PVC, black	0.25 mm ²	
934871018	RKM 5-507/25 M	5	PVC, black	0.25 mm ²	
934871019	RKM 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871020	RKM 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871021	RKM 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871022	RKM 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871023	RKM 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871024	RKM 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	 

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Straight Female and Male with Snap-in Coupling Nut for Actuators and Sensors *(continued)*

Order Information


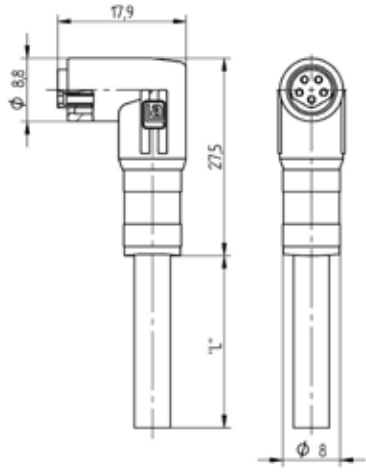
Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934876001	RSM 5-671/2 M	5	PVC, black	0.34 mm ²	 UL
934876002	RSM 5-671/5 M	5	PVC, black	0.34 mm ²	 UL
934876003	RSM 5-671/10 M	5	PVC, black	0.34 mm ²	 UL
934876004	RSM 5-671/15 M	5	PVC, black	0.34 mm ²	 UL
934876005	RSM 5-671/20 M	5	PVC, black	0.34 mm ²	 UL
934876006	RSM 5-671/25 M	5	PVC, black	0.34 mm ²	 UL
934876007	RSM 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876008	RSM 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876009	RSM 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876010	RSM 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876011	RSM 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876012	RSM 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	  UL

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934876013	RSM 5-507/2 M	5	PVC, black	0.25 mm ²	
934876014	RSM 5-507/5 M	5	PVC, black	0.25 mm ²	
934876015	RSM 5-507/10 M	5	PVC, black	0.25 mm ²	
934876016	RSM 5-507/15 M	5	PVC, black	0.25 mm ²	
934876017	RSM 5-507/20 M	5	PVC, black	0.25 mm ²	
934876018	RSM 5-507/25 M	5	PVC, black	0.25 mm ²	
934876019	RSM 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876020	RSM 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876021	RSM 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876022	RSM 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876023	RSM 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876024	RSM 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	 

Conversion table mm² to AWG on page 20

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Right-Angle Female with Snap-in Coupling Nut for Actuators and Sensors

Technical Information





































Product Description	
Type	RKMW 5
	
Description	Miniature angled female connector with snap joint and molded cable, 5-pin, B-coding
RoHS (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Approvals	UL
Technical Data	
Ambient Temperature	-40 to +90°C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn/Au
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC; UL: 30 V AC/DC
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable
Do not connect / disconnect under load.

Pin Assignment

M8, female, 5-poles	
	1 = brown 2 = white 3 = blue 4 = black 5 = gray



Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934884001	RKMW 5-671/2 M	5	PVC, 0.34 mm ² ca. AWG 22, black	
934884002	RKMW 5-671/5 M	5	PVC, 0.34 mm ² ca. AWG 22, black	
934884003	RKMW 5-671/10 M	5	PVC, 0.34 mm ² ca. AWG 22, black	
934884004	RKMW 5-671/15 M	5	PVC, 0.34 mm ² ca. AWG 22, black	
934884005	RKMW 5-671/20 M	5	PVC, 0.34 mm ² ca. AWG 22, black	
934884006	RKMW 5-671/25 M	5	PVC, 0.34 mm ² ca. AWG 22, black	
934884007	RKMW 5-293/2 M	5	PUR, 0.34 mm ² ca. AWG 22, black, halogen-free	 
934884008	RKMW 5-293/5 M	5	PUR, 0.34 mm ² ca. AWG 22, black, halogen-free	 
934884009	RKMW 5-293/10 M	5	PUR, 0.34 mm ² ca. AWG 22, black, halogen-free	 
934884010	RKMW 5-293/15 M	5	PUR, 0.34 mm ² ca. AWG 22, black, halogen-free	 
934884011	RKMW 5-293/20 M	5	PUR, 0.34 mm ² ca. AWG 22, black, halogen-free	 
934884012	RKMW 5-293/25 M	5	PUR, 0.34 mm ² ca. AWG 22, black, halogen-free	 
934884013	RKMW 5-507/2 M	5	PVC, 0.25 mm ² ca. AWG 24, black	
934884014	RKMW 5-507/5 M	5	PVC, 0.25 mm ² ca. AWG 24, black	
934884015	RKMW 5-507/10 M	5	PVC, 0.25 mm ² ca. AWG 24, black	
934884016	RKMW 5-507/15 M	5	PVC, 0.25 mm ² ca. AWG 24, black	
934884017	RKMW 5-507/20 M	5	PVC, 0.25 mm ² ca. AWG 24, black	
934884018	RKMW 5-507/25 M	5	PVC, 0.25 mm ² ca. AWG 24, black	
934884019	RKMW 5-506/2 M	5	PUR, 0.25 mm ² ca. AWG 24, black, halogen-free	 
934884020	RKMW 5-506/5 M	5	PUR, 0.25 mm ² ca. AWG 24, black, halogen-free	 
934884021	RKMW 5-506/10 M	5	PUR, 0.25 mm ² ca. AWG 24, black, halogen-free	 
934884022	RKMW 5-506/15 M	5	PUR, 0.25 mm ² ca. AWG 24, black, halogen-free	 
934884023	RKMW 5-506/20 M	5	PUR, 0.25 mm ² ca. AWG 24, black, halogen-free	 
934884024	RKMW 5-506/25 M	5	PUR, 0.25 mm ² ca. AWG 24, black, halogen-free	 

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Straight Female and Male with Screw Coupling Nut for Actuators and Sensors

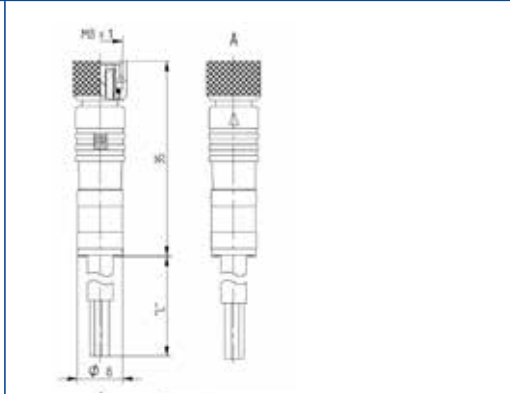
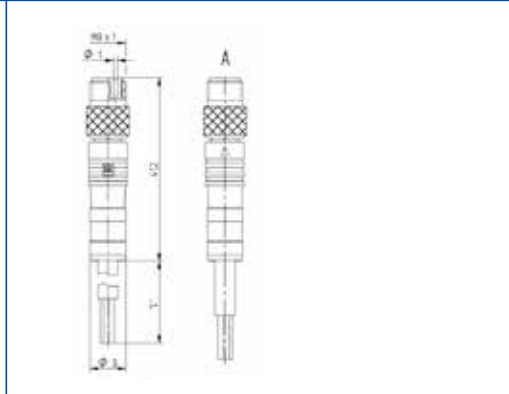
Technical Information

Product Description		
Order Designation	RKMV 5	RSMV 5
		
Description	Actuator/sensor single ended cordset, M8 female connector, straight, with screw coupling and overmolded cable, 5-pin, B-coding	Actuator/sensor single ended cordset, M8 male connector, straight, with screw coupling and overmolded cable, 5-pin, B-coding
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	

Technical Data	
Ambient Temperature	-40 to +90°C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, gold-plated
Screw Coupling Material	CuZn, nickel-plated

Mechanical Data	
Degree of Protection	IP65, IP67, IP69K (only when mated with Hirschmann/Lumberg counterparts)

Electrical Data	
Contact Resistance	≤ 10 mΩ
Operating Voltage	50 V AC/60 V DC; UL: 30 V AC/DC
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)
Pollution Degree	3





















Technical Drawing	
	

L = Standard length of cable

Pin Assignment

M8, female, 5-poles	M8, male, 5-poles
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray


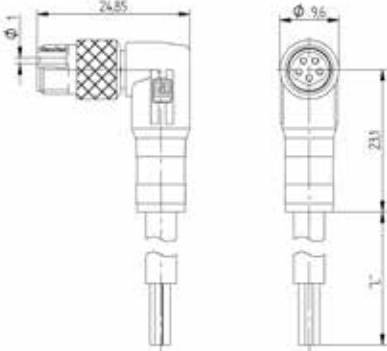
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934841001	RKMV 5-671/2 M	5	PVC, black	0.34 mm ²	
934841002	RKMV 5-671/5 M	5	PVC, black	0.34 mm ²	
934841003	RKMV 5-671/10 M	5	PVC, black	0.34 mm ²	
934841004	RKMV 5-671/15 M	5	PVC, black	0.34 mm ²	
934841005	RKMV 5-671/20 M	5	PVC, black	0.34 mm ²	
934841006	RKMV 5-671/25 M	5	PVC, black	0.34 mm ²	
934841007	RKMV 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841008	RKMV 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	
934841009	RKMV 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	
934841010	RKMV 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	
934841011	RKMV 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	
934841012	RKMV 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	
934841013	RKMV 5-507/2 M	5	PVC, black	0.25 mm ²	
934841014	RKMV 5-507/5 M	5	PVC, black	0.25 mm ²	
934841015	RKMV 5-507/10 M	5	PVC, black	0.25 mm ²	
934841016	RKMV 5-507/15 M	5	PVC, black	0.25 mm ²	
934841017	RKMV 5-507/20 M	5	PVC, black	0.25 mm ²	
934841018	RKMV 5-507/25 M	5	PVC, black	0.25 mm ²	
934841019	RKMV 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934841020	RKMV 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	
934841021	RKMV 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	
934841022	RKMV 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	
934841023	RKMV 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	
934841024	RKMV 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	
934843001	RSMV 5-671/2 M	5	PVC, black	0.34 mm ²	
934843002	RSMV 5-671/5 M	5	PVC, black	0.34 mm ²	
934843003	RSMV 5-671/10 M	5	PVC, black	0.34 mm ²	
934843004	RSMV 5-671/15 M	5	PVC, black	0.34 mm ²	
934843005	RSMV 5-671/20 M	5	PVC, black	0.34 mm ²	
934843006	RSMV 5-671/25 M	5	PVC, black	0.34 mm ²	
934843007	RSMV 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934843008	RSMV 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	
934843009	RSMV 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	
934843010	RSMV 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	
934843011	RSMV 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	
934843012	RSMV 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	
934843013	RSMV 5-507/2 M	5	PVC, black	0.25 mm ²	
934843014	RSMV 5-507/5 M	5	PVC, black	0.25 mm ²	
934843015	RSMV 5-507/10 M	5	PVC, black	0.25 mm ²	
934843016	RSMV 5-507/15 M	5	PVC, black	0.25 mm ²	
934843017	RSMV 5-507/20 M	5	PVC, black	0.25 mm ²	
934843018	RSMV 5-507/25 M	5	PVC, black	0.25 mm ²	
934843019	RSMV 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934843020	RSMV 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	
934843021	RSMV 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	
934843022	RSMV 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	
934843023	RSMV 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	
934843024	RSMV 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Right-Angle Male with Screw Coupling for Actuators and Sensors

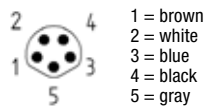
Technical Information

Product Description	
Order Designation	RSMWV 5
	
Description	Actuator/sensor single ended cordset, M8 male connector, angeled, with screw coupling and overmolded cable, 5-pin, B-coding
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Approvals	UL
Technical Data	
Ambient Temperature	-40 to +90°C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP65, IP67, IP69K (only when mated with Hirschmann/Lumberg counterparts / IP69K only with PUR STL)
Electrical Data	
Contact Resistance	≤ 10 mΩ
Operating Voltage	50 V AC/60 V DC; UL: 30 V AC/DC
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)
Pollution Degree	3
Technical Drawing	
	











L = Standard length of cable

Pin Assignment

M8, male, 5-poles





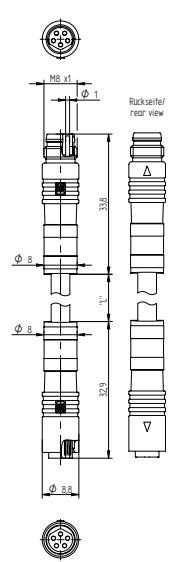
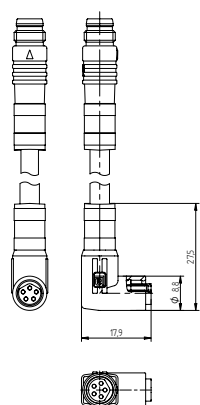
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934844001	RSMWV 5-671/2 M	5	PVC, black	0.34 mm ²	
934844002	RSMWV 5-671/5 M	5	PVC, black	0.34 mm ²	
934844003	RSMWV 5-671/10 M	5	PVC, black	0.34 mm ²	
934844004	RSMWV 5-671/15 M	5	PVC, black	0.34 mm ²	
934844005	RSMWV 5-671/20 M	5	PVC, black	0.34 mm ²	
934844006	RSMWV 5-671/25 M	5	PVC, black	0.34 mm ²	
934844007	RSMWV 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934844008	RSMWV 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	
934844009	RSMWV 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	
934844010	RSMWV 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	
934844011	RSMWV 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	
934844012	RSMWV 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	
934844013	RSMWV 5-507/2 M	5	PVC, black	0.25 mm ²	
934844014	RSMWV 5-507/5 M	5	PVC, black	0.25 mm ²	
934844015	RSMWV 5-507/10 M	5	PVC, black	0.25 mm ²	
934844016	RSMWV 5-507/15 M	5	PVC, black	0.25 mm ²	
934844017	RSMWV 5-507/20 M	5	PVC, black	0.25 mm ²	
934844018	RSMWV 5-507/25 M	5	PVC, black	0.25 mm ²	
934844019	RSMWV 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934844020	RSMWV 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	
934844021	RSMWV 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	
934844022	RSMWV 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	
934844023	RSMWV 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	
934844024	RSMWV 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Double-Ended Overmolded Cordsets, Straight and Right Angle, Male to Female for Actuators and Sensors

Technical Information

Product Description		
Order Designation	RSM 5-RKM 5	RSM 5-RKMW 5
		
Description	Double ended cordset for sensor/actuator applications combining M8 male, straight, 5 pin, with snap/screw (fixed) attachment and M8 female, straight, 5-pin with snap attachment	Double ended cordset for sensor/actuator applications combining M8 male, straight, 5 pin, with snap/screw (fixed) attachment and M8 female, angled, 5-pin with snap attachment
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 to +90°C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	RSM 5: CuZn nickel-plated (screw), PA (snap) RKM 5: TPU (snap)	
Mechanical Data		
Degree of Protection	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts / IP67 only when screwed)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	50 V AC/60 V DC; UL: 30 V AC/DC	
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)	
Pollution Degree	3	
Technical Drawing		
		





L = Standard length of cable

Pin Assignment

M8, Male and Female, 5-poles











Order Information

































































Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894001	RSM 5-RKM 5-671/0.3 M	5	PVC, black	0.34 mm ²	
934894002	RSM 5-RKM 5-671/0.6 M	5	PVC, black	0.34 mm ²	
934894003	RSM 5-RKM 5-671/1 M	5	PVC, black	0.34 mm ²	
934894004	RSM 5-RKM 5-671/2 M	5	PVC, black	0.34 mm ²	
934894005	RSM 5-RKM 5-671/3 M	5	PVC, black	0.34 mm ²	
934894006	RSM 5-RKM 5-671/5 M	5	PVC, black	0.34 mm ²	
934894007	RSM 5-RKM 5-671/10 M	5	PVC, black	0.34 mm ²	
934894008	RSM 5-RKM 5-671/15 M	5	PVC, black	0.34 mm ²	
934894009	RSM 5-RKM 5-507/0.3 M	5	PVC, black	0.25 mm ²	
934894010	RSM 5-RKM 5-507/0.6 M	5	PVC, black	0.25 mm ²	
934894011	RSM 5-RKM 5-507/1 M	5	PVC, black	0.25 mm ²	
934894012	RSM 5-RKM 5-507/2 M	5	PVC, black	0.25 mm ²	
934894013	RSM 5-RKM 5-507/3 M	5	PVC, black	0.25 mm ²	
934894014	RSM 5-RKM 5-507/5 M	5	PVC, black	0.25 mm ²	
934894015	RSM 5-RKM 5-507/10 M	5	PVC, black	0.25 mm ²	
934894016	RSM 5-RKM 5-507/15 M	5	PVC, black	0.25 mm ²	
934894017	RSM 5-RKM 5-293/0.3 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894018	RSM 5-RKM 5-293/0.6 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894019	RSM 5-RKM 5-293/1 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894020	RSM 5-RKM 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894021	RSM 5-RKM 5-293/3 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894022	RSM 5-RKM 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894023	RSM 5-RKM 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894024	RSM 5-RKM 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	  

M8 5-Pole, B-coding Double-Ended Overmolded Cordsets, Straight and Right Angle, Male to Female for Actuators and Sensors (continued)

Order Information


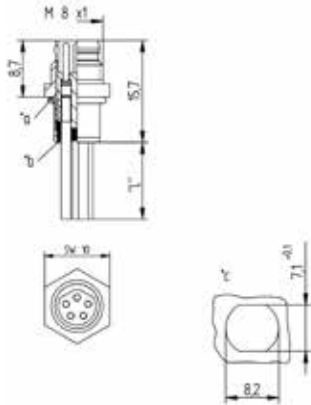
Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894025	RSM 5-RKM 5-506/0.3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894026	RSM 5-RKM 5-506/0.6 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894027	RSM 5-RKM 5-506/1 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894028	RSM 5-RKM 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894029	RSM 5-RKM 5-506/3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894030	RSM 5-RKM 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894031	RSM 5-RKM 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894032	RSM 5-RKM 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894101	RSM 5-RKMW 5-671/0.3 M	5	PVC, black	0.34 mm ²	 
934894102	RSM 5-RKMW 5-671/0.6 M	5	PVC, black	0.34 mm ²	 
934894103	RSM 5-RKMW 5-671/1 M	5	PVC, black	0.34 mm ²	 
934894104	RSM 5-RKMW 5-671/2 M	5	PVC, black	0.34 mm ²	 
934894105	RSM 5-RKMW 5-671/3 M	5	PVC, black	0.34 mm ²	 
934894106	RSM 5-RKMW 5-671/5 M	5	PVC, black	0.34 mm ²	 
934894107	RSM 5-RKMW 5-671/10 M	5	PVC, black	0.34 mm ²	 
934894108	RSM 5-RKMW 5-671/15 M	5	PVC, black	0.34 mm ²	 
934894109	RSM 5-RKMW 5-507/0.3 M	5	PVC, black	0.25 mm ²	 
934894110	RSM 5-RKMW 5-507/0.6 M	5	PVC, black	0.25 mm ²	 
934894111	RSM 5-RKMW 5-507/1 M	5	PVC, black	0.25 mm ²	 
934894112	RSM 5-RKMW 5-507/2 M	5	PVC, black	0.25 mm ²	 
934894113	RSM 5-RKMW 5-507/3 M	5	PVC, black	0.25 mm ²	 
934894114	RSM 5-RKMW 5-507/5 M	5	PVC, black	0.25 mm ²	 
934894115	RSM 5-RKMW 5-507/10 M	5	PVC, black	0.25 mm ²	 
934894116	RSM 5-RKMW 5-507/15 M	5	PVC, black	0.25 mm ²	 

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894117	RSM 5-RKMW 5-293/0.3 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894118	RSM 5-RKMW 5-293/0.6 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894119	RSM 5-RKMW 5-293/1 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894120	RSM 5-RKMW 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894121	RSM 5-RKMW 5-293/3 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894122	RSM 5-RKMW 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894123	RSM 5-RKMW 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894124	RSM 5-RKMW 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894125	RSM 5-RKMW 5-506/0.3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894126	RSM 5-RKMW 5-506/0.6 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894127	RSM 5-RKMW 5-506/1 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894128	RSM 5-RKMW 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894129	RSM 5-RKMW 5-506/3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894130	RSM 5-RKMW 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894131	RSM 5-RKMW 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894132	RSM 5-RKMW 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	   

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Receptacle, Front Mounting - Male**Technical Information**




Product Description	
Order Designation	RSMF 5/0.5 M
	NEW! 
Description	Receptacle connector, M8 male, 5-pole, B-coded, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, M8 x 0.5 screw coupling at rear chassis side
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Approvals	UL pending
Technical Data	
Ambient Temperature	-40°C to +90 °C
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
O-Ring	FKM
Mechanical Data	
Degree of Protection	IP67 (only when mated and screwed with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Technical Drawing	
	

*a = O-ring • *b = Terminal area potted • *c = Panel cut out • L = Standard length of stranded hook-up wire
Do not connect / disconnect under load.


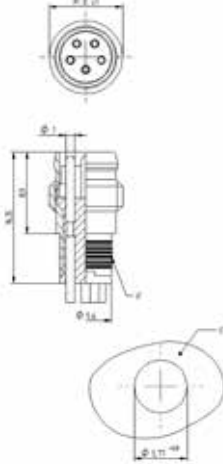
Pin Assignment**M8, Male, 5-poles**

- 1 = brown
- 2 = white
- 3 = blue
- 4 = black
- 5 = gray

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
934950001	RSMF 5/0.5 M	5	stranded hook-up wire 0.50 m	AWG 22	  

M8 5-Pole, B-coding Receptacle for Sensors - Male with Snap/Screw Type Coupling**Technical Information**

Product Description	
Order Designation	RSMED 5B
	NEW! 
Description	Receptacle connector, M8, 5 -pole, B-coded, male connector sensors, with combination snap/screw-type coupling
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Technical Data	
Ambient Temperature	-40°C to +90°C
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn/Au
Mechanical Data	
Degree of Protection	IP 65 (only when mated with Hirschmann/Lumberg counterparts) IP 67 (only when mated and screwed with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Technical Drawing	
	

a* = Groove Contour • *c = Panel cut out

Pin Assignment**M8, Male, 5-poles**


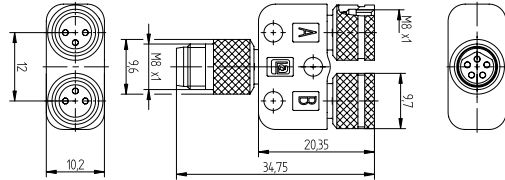
- 1 = brown
- 2 = white
- 3 = blue
- 4 = black
- 5 = gray

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
934965001	RSMED 5B	5	Solder	0.25 mm ²	  

M8 T-Splitter

Technical Information

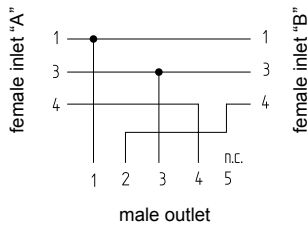
Product Description	
Order Designation	ASBS 2 M8
	NEW! 
Description	T-splitter, M8 5 pin male (outlet) and two M8 3 pin female (inlets) connectors, with knurled nuts and vibration proof connections
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Technical Data	
Ambient Temperature	-40°C to +90°C
Housing Material/Body	TPU
Contact Holder Material	TPU/PA
Contact Material/Surface Finish	CuZn/Au
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A
Pollution Degree	3
Technical Drawing	
	ASBSM 2 M8 503 

Pin Assignment

ASBSM 2 M8 503
<p>A / B</p> 

Circuit Diagram

ASBSM 2 M8 503



Order Information

Order No.	Order Designation	No. of Pins	Characteristics
934863001	ASBSM 2 M8 5-3	3 (inlets) 5 (outlet)	  



I/O Modules Active – Stand-Alone: PROFINET



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PROFINET – Process Field Network



PROFINET (Process Field Network) is an open Industrial Ethernet Standard for automation from Profibus & Profinet International (PI). PROFINET uses the Ethernet standard, is a realtime-capable system and is standardized under IEC 61158 and IEC 61784. PROFINET minimizes the costs of installation, engineering and commissioning for manufacturers of machines and systems. Operators can extend their systems with ease and at the same time benefit from a high level of system availability.

PROFINET also allows use of web technologies by means of the Ethernet-based protocol – access to a web server integrated in the field devices. This allows addressing, diagnostic and other information to be retrieved easily across network boundaries using standard web browsers.



PROFINET – Digital Inputs

Technical Information

Product Description		
Type	0980 ESL 801-PNET 16DI-M12-R	0980 ESL 701
		
Description	LioN-R PROFINET device with 16 digital input channels, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles	LioN-M PROFINET device with 16 digital input channels, M12 LAN connection, D-coded, 7/8" power supply, 5-poles
Order No.	934692001	109629
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	620 g	380 g
Bus System		
ID Number	0x0304	0x0303
Transmission Rate	10/100 Mbit/s	
Address Range	0 to 255	-
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	typ. 90 mA	
Input Power Supply		
Voltage Range	19 to 30 V DC	
Sensor Current	200 mA (at T _{amp} +30 °C)	
Indicator	LED green	
Inputs		
Number of Digital Channels	16	
Rated Voltage	24 V DC	
Status Indicator	LED white per channel + yellow	LED yellow per channel
Diagnostic Indicator	LED red per port	LED red per socket
Included in Delivery		
M12 Dust Covers	4 pieces	
Attachable Labels	10 pieces	

Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

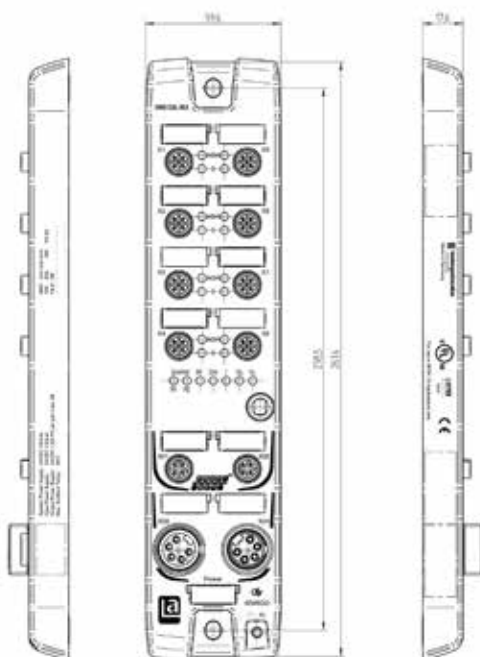
Diagnostic Indication

LED	Indicator	Condition
Us	Green	Logic/sensor power supply
U _L	Green	Actuator power supply
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message

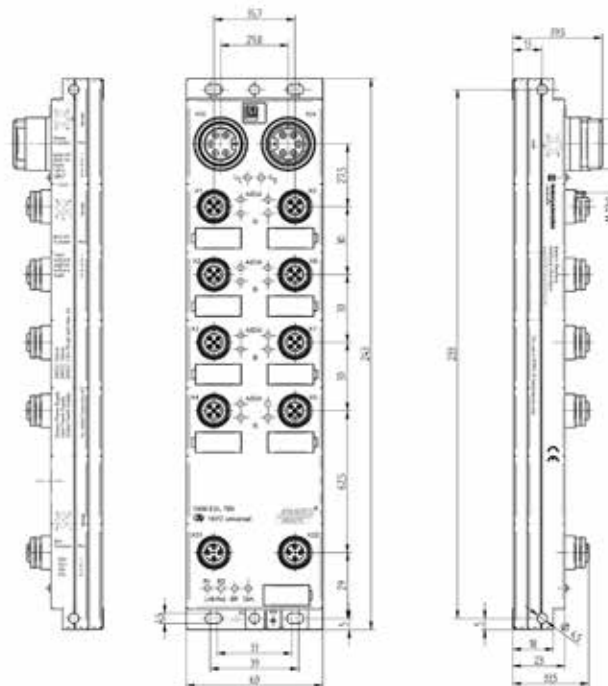


Pin Assignment

LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
<p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	<p>1 = GND (0 V) 2 = GND (0 V) 3 = Earth/FE 4 = +24 V 5 = +24 V</p>	<p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth/FE Housing = FE</p>










0980 ESL 801



0980 ESL 701

PROFINET – Digital Outputs

Technical Information

Product Description	
Type	0980 ESL 802-PNET 16DO-M12-R
	      
Description	LioN-R PROFINET device, 16 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934692002
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	620 g
Bus System	
ID Number	0x0304
Transmission Rate	10/100 Mbit/s
Address Range	0 to 255
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Reverse Polarity Protection	yes/permanent inverse polarity protection
Indicator	LED green
Outputs	
Number of Digital Channels	16
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A per module
Status Indicator	LED white per channel + yellow
Diagnostic Indicator	LED red per port
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces


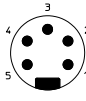
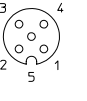
Bit Assignment

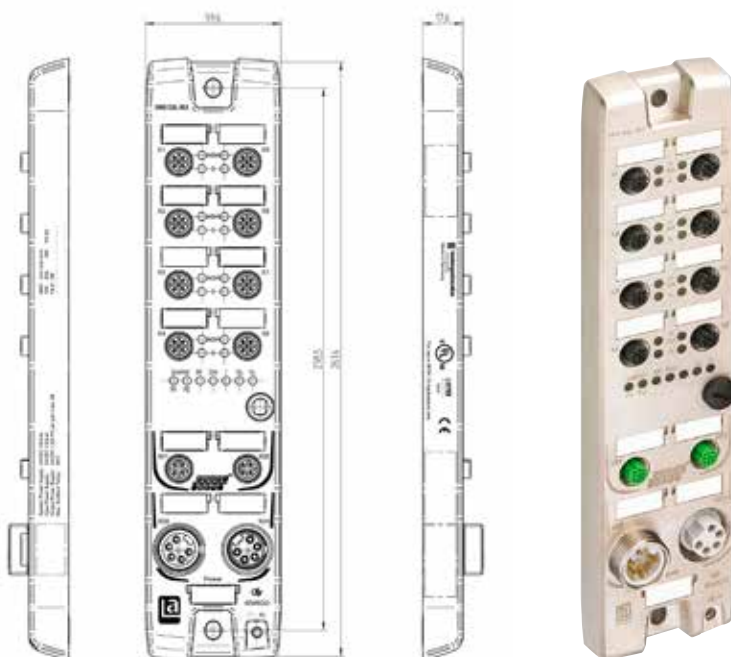
Bit	7	6	5	4	3	2	1	0
M12 Output 16DO								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

LED	Indicator	Condition
Us	Green	Logic/sensor power supply
U _L	Green	Actuator power supply
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message

Pin Assignment








LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	 <p>1 = GND (0 V) Actuators 2 = GND (0 V) Logic/Sensors 3 = Earth/FE 4 = +24 V Logic/Sensors 5 = +24 V Actuators</p>	 <p>1 = +24 V 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = Earth/FE Housing = FE</p>



0980 ESL 802

PROFINET – Digital In- and Outputs

Technical Information

Product Description	
Type	0980 ESL 803-PNET 8DI/8DO-M12-R
	      
Description	LioN-R PROFINET device, 8 digital input and 8 output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 5-poles
Order No.	934692003
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	620 g
Bus System	
ID Number	0x0304
Transmission Rate	10/100 Mbit/s
Address Range	0 to 255
Inputs	
Number of Digital Channels	8
Rated Voltage	24 V DC
Status Indicator	LED white per channel
Diagnostic Indicator	LED red per port
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Reverse Polarity Protection	yes/permanent inverse polarity protection
Indicator	LED green
Outputs	
Number of Digital Channels	8
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A per module
Status Indicator	LED white per channel + yellow
Diagnostic Indicator	LED red per port
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces


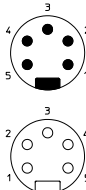
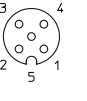
Bit Assignment

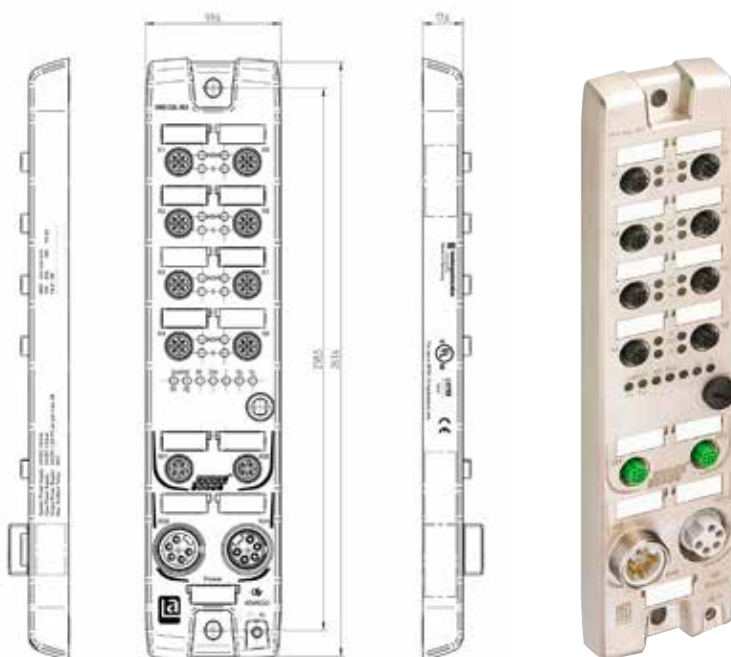
Bit	7	6	5	4	3	2	1	0
M12 Output 16DO								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
M12 Input 8DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output 8DO								
Byte 0	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

LED	Indicator	Condition
Us	Green	Logic/sensor power supply
U _L	Green	Actuator power supply
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message




Pin Assignment

LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	 <p>1 = GND (0 V) Actuators 2 = GND (0 V) Logic/Sensors 3 = Earth/FE 4 = +24 V Logic/Sensors 5 = +24 V Actuators</p>	 <p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth/FE Housing = FE</p>



0980 ESL 803

PROFINET – Digital In- and Outputs (Universal)**Technical Information**

Product Description	
Type	0980 ESL 700
	  
	
Description	LiON-M PROFINET device with 16 digital I/O channels, channels can be used universally as inputs or outputs, M12 LAN connection, D-coded, 7/8" power supply, 5-poles
Order No.	109628
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	380 g
Bus System	
ID Number	0x0303
Transmission Rate	10/100 Mbit/s
System/Sensors Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Power Consumption	typ. 90 mA
Input Power Supply	
Voltage Range	19 to 30 V DC
Sensor Current	200 mA (at T _{amp} +30 °C)
Indicator	LED green
Inputs	
Number of Digital Channels	max. 16
Rated Voltage	24 V DC
Status Indicator	LED yellow per channel
Diagnostic Indicator	LED red per socket
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Reverse Polarity Protection	yes/antiparallel diode
Indicator	LED green
Outputs	
Number of Digital Channels	max. 16
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A (12 A) per module
Status Indicator	LED yellow per channel
Diagnostic Indicator	LED red per socket
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces


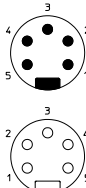

Bit Assignment

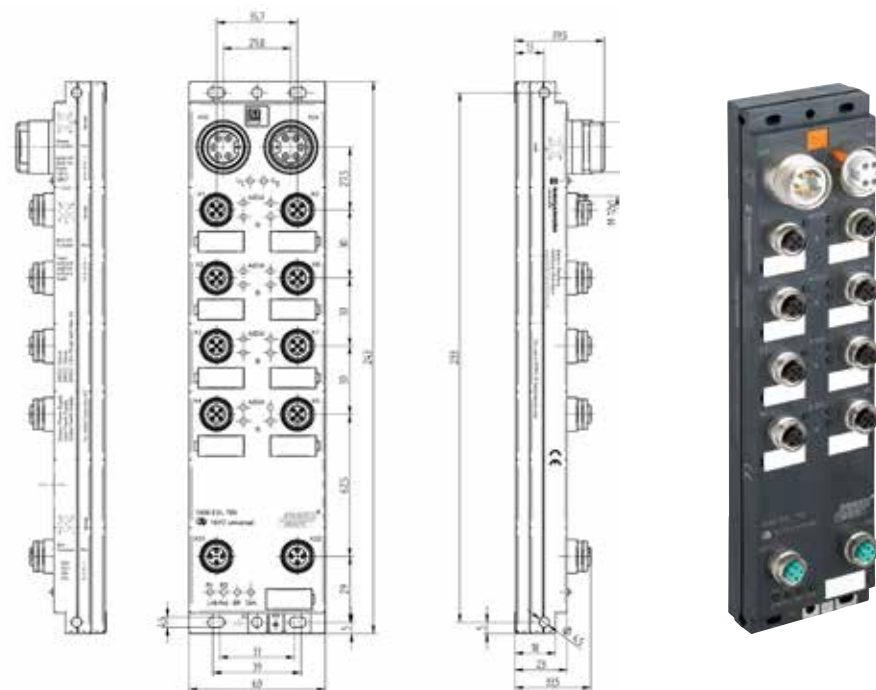
Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
M12 Output								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

LED	Indicator	Condition
Us	Green	Logic/sensor power supply
U _L	Green	Actuator power supply
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	Yellow	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
BF	Red Off	Bus error, no data exchange with I/O controller via PROFINET No error message
DIA	Red Red blinking Off	Common indicator for periphery errors Firmware update No error message

Pin Assignment

LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	 <p>1 = GND (0 V) Actuators 2 = GND (0 V) Logic/Sensors 3 = Earth/FE 4 = +24 V Logic/Sensors 5 = +24 V Actuators</p>	 <p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth/FE Housing = FE</p>



0980 ESL 700



I/O Modules Active – Stand-Alone: EtherNet/IP



Be certain. Belden.

EtherNet Industrial Protocol

A procedure was developed in 1998 by a ControlNet International working group for adapting the application protocol, the Common Industrial Protocol, to Ethernet. EtherNet/IP was published as an official industrial standard based on this procedure in March 2000.

EtherNet/IP (EtherNet Industrial Protocol, or EIP for short) is a real-time protocol used primarily in automation technology, and is promoted by more than 150 manufacturers. Based on the TCP and UDP standards, EtherNet/IP supports continuity between the office and production network. The web








server integrated in the Logix control interface module can be used during startup (diagnostics) of EtherNet/IP networks as well as web servers available in other EtherNet/IP equipment.

The typical cycle time of an EtherNet/IP network is 10 ms, which means it is not suitable for "hard" realtime applications (<1 ms), for example, for controlling servo motors. A protocol extension is available for EtherNet/IP for this purpose in the form of CIPSync or MotionSync. Normal twisted pair cables or fiber optic cables are used as a transmission medium.

EtherNet/IP™

EtherNet/IP - Digital Inputs

Technical Information

Product Description		
Type	0980 ESL 811-EIP 16DI-M12-R	0980 ESL 711
	 ODDVA CSA UL    	 UL  
Description	LioN-R EtherNet/IP device with 16 digital input channels, rotary switches for addressing, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 4-poles, Quick Connect-Technology	LioN-M EtherNet/IP device with 16 digital input channels, rotary switches for addressing, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 4-poles
Order No.	934691001	109630
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	620 g	380 g
Bus System		
ID Number	0x07	-
Transmission Rate	10/100 Mbit/s	
Address Range	0 to 255	
Quick Connect-Technology	500 ms	-
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	typ. 90 mA	
Input Power Supply		
Voltage Range	19 to 30 V DC	
Sensor Current	200 mA	200 mA (at T _{amp} +30 °C)
Indicator	LED green	
Inputs		
Number of Digital Channels	16	max. 16
Rated Voltage	24 V DC	
Status Indicator	LED white per channel + yellow	LED yellow per channel
Diagnostic Indicator	LED red per port	LED red per socket
Included in Delivery		
M12 Dust Covers	4 pieces	
Attachable Labels	10 pieces	

Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication 0980 ESL 711

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	Yellow	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking	Connection to an Ethernet device I/O device exchanging data
P2 Lnk/Act	Green Yellow blinking	Connection to an Ethernet device I/O device exchanging data
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update Device is off
NS (Network status)	Green Green blinking Red Red blinking Off	Connection to master is available IP address exists, but no connection to the master IP address is already being used by another device At least one connection has timed out Device is off
Us	Green Off	Sensor power supply applied Sensor power supply missing
Ul	Green Off	Actuator power supply applied Actuator power supply missing

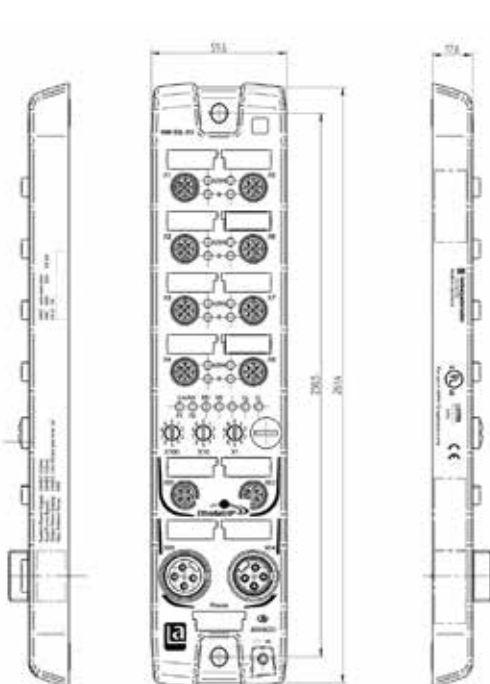
Diagnostic Indication 0980 ESL 811-EIP

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green Red	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$ Voltage $U_s < 19\text{ V}$ or $U_s > 30\text{ V}$
U _L	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ Voltage $U_L < 19\text{ V}$ or $U_L > 30\text{ V}$

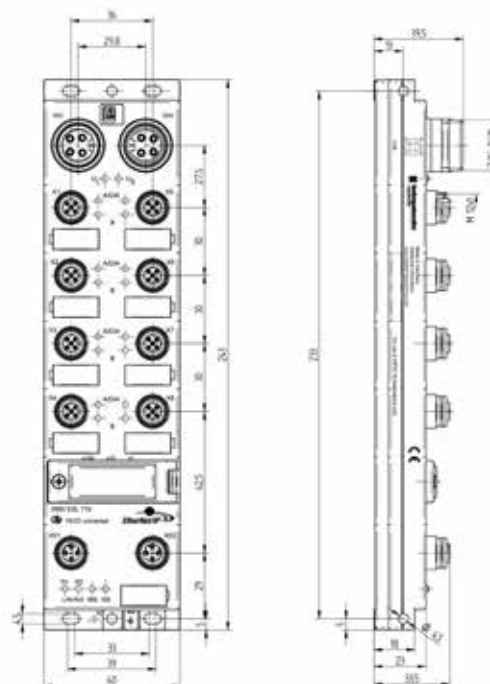


Pin Assignment

LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
<p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	<p>1 = +24 V Actuators 2 = +24 V Logic/Sensors 3 = GND (0 V) 4 = GND (0 V) Actuators Housing = FE</p>	<p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth/FE Housing = FE</p>











0980 ESL 811



0980 ESL 711

EtherNet/IP - Digital Outputs

Technical Information

Product Description	
Type	0980 ESL 812-EIP 16DO-M12-R
	       
Description	LioN-R EtherNet/IP device, 16 digital output channels with galvanic isolation, rotary switches for addressing, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 4-poles, with Quick Connect-Technology
Order No.	934691002
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	620 g
Bus System	
ID Number	0x07
Transmission Rate	10/100 Mbit/s
Address Range	0 to 255
Quick Connect-Technology	500 ms
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Reverse Polarity Protection	yes/antiparallel diode
Indicator	LED white
Outputs	
Number of Digital Channels	16
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A per module
Status Indicator	LED white per channel + yellow
Diagnostic Indicator	LED red per port
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces




Bit Assignment

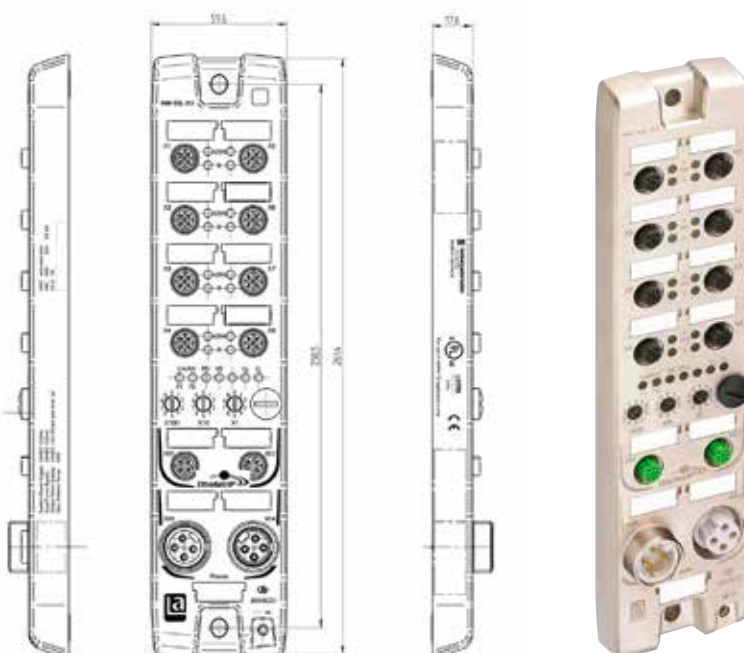
Bit	7	6	5	4	3	2	1	0
M12 Output 16DO								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green Red	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$ Voltage $U_s < 19\text{ V}$ or $U_s > 30\text{ V}$
U _L	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ Voltage $U_L < 19\text{ V}$ or $U_L > 30\text{ V}$

Pin Assignment



LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	 <p>1 = +24 V Actuators 2 = +24 V Logic/Sensors 3 = GND (0 V) 4 = GND (0 V) Actuators Housing = FE</p>	 <p>1 = +24 V 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = Earth Housing = FE</p>



0980 ESL 812/813

EtherNet/IP - Digital In- and Outputs

Technical Information

Product Description	
Type	0980 ESL 813-EIP 8DI/8DO-M12-R
	 
Description	LioN-R EtherNet/IP device, 8 digital input and 8 output channels with galvanic isolation, rotary switches for addressing, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 4-poles, with Quick Connect-Technology
Order No.	934691003
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	620 g
Bus System	
ID Number	0x07
Transmission Rate	10/100 Mbit/s
Address Range	0 to 255
Quick Connect-Technology	500 ms
Inputs	
Number of Digital Channels	8
Rated Voltage	24 V DC
Status Indicator	LED white per channel + yellow
Diagnostic Indicator	LED red per port
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Reverse Polarity Protection	yes/antiparallel diode
Indicator	LED white
Outputs	
Number of Digital Channels	8
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A per module
Status Indicator	LED white per channel + yellow
Diagnostic Indicator	LED red per port
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces




Bit Assignment

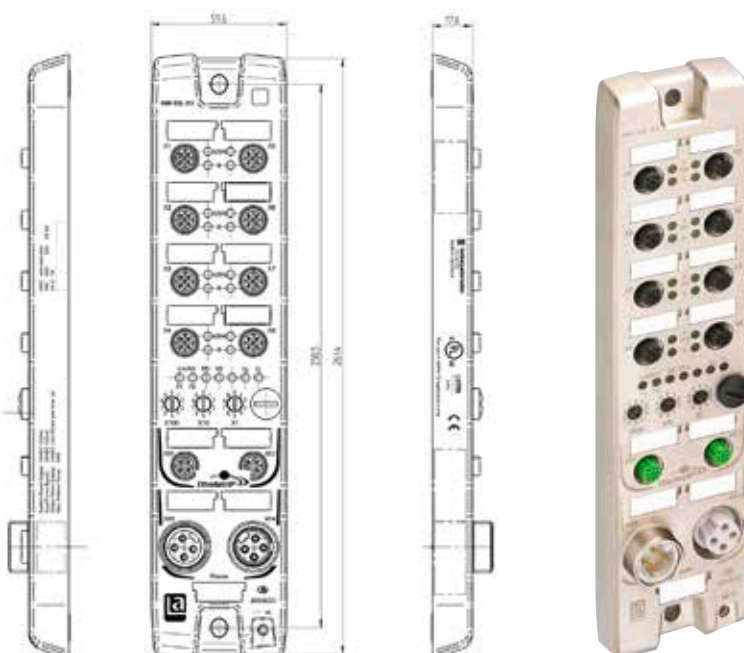
Bit	7	6	5	4	3	2	1	0
M12 Input 8DI								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output 8DO								
Byte 0	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
P2 Lnk/Act	Green Yellow blinking Off	Connection to an Ethernet device I/O device exchanging data No connection to another device
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update IP address is available
NS (Network status)	Green blinking Green Red blinking Red Red/green blinking Off	IP address is available Connection to master is available At least one connection has timed out IP address is already being used by another device Self test is running Device is switched off/device has no IP address
Us	Green Red	Voltage $19\text{ V} \leq U_s \leq 30\text{ V}$ Voltage $U_s < 19\text{ V}$ or $U_s > 30\text{ V}$
U _L	Green Red	Voltage $19\text{ V} \leq U_L \leq 30\text{ V}$ Voltage $U_L < 19\text{ V}$ or $U_L > 30\text{ V}$





Pin Assignment

LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	 <p>1 = +24 V Actuators 2 = +24 V Logic/Sensors 3 = GND (0 V) 4 = GND (0 V) Actuators Housing = FE</p>	 <p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth Housing = FE</p>



0980 ESL 812/813

EtherNet/IP - Digital In- and Outputs (Universal)**Technical Information**

Product Description	
Type	0980 ESL 710
	  
	
Description	LioN-M EtherNet/IP device with 16 digital I/O channels, channels can be used universally as inputs or outputs, rotary switches for addressing, M12 LAN connection, 4-poles, D-coded, 7/8" power supply, 4-poles
Order No.	109627
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	380 g
Bus System	
Transmission Rate	10/100 Mbit/s
System/Sensors Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Power Consumption	typ. 90 mA
Input Power Supply	
Voltage Range	19 to 30 V DC
Sensor Current	200 mA (at T _{amp} +30 °C)
Indicator	LED green
Inputs	
Number of Digital Channels	max. 16
Rated Voltage	24 V DC
Status Indicator	LED yellow per channel
Diagnostic Indicator	LED red per socket
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	19 to 30 V DC
Reverse Polarity Protection	yes/antiparallel diode
Indicator	LED green
Outputs	
Number of Digital Channels	max. 16
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A (12 A) per module
Status Indicator	LED yellow per channel
Diagnostic Indicator	LED red per socket
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces




Bit Assignment

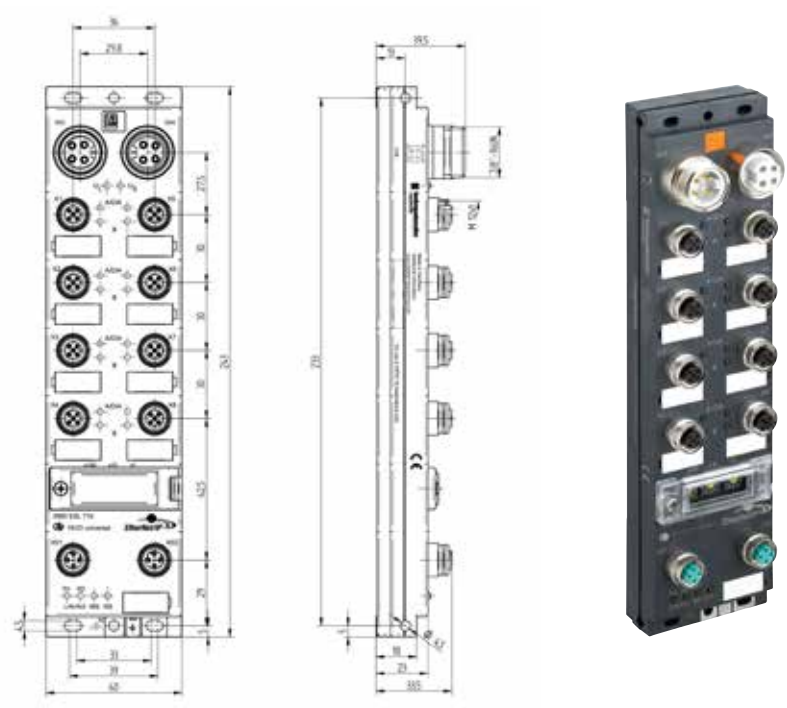
Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
M12 Output								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	Yellow	Channel status
1...8 DIA B	Red	Periphery error
P1 Lnk/Act	Green Yellow blinking	Connection to an Ethernet device I/O device exchanging data
P2 Lnk/Act	Green Yellow blinking	Connection to an Ethernet device I/O device exchanging data
MS (Module status)	Green Green blinking Red/green blinking Red blinking Off	Device is ready for operating Wrong configuration Self test is running Firmware update Device is off
NS (Network status)	Green Green blinking Red Red blinking Off	Connection to master is available IP address exists, but no connection to the master IP address is used by a different device Connection has timed out Device is off
Us	Green Off	Sensor power supply applied Sensor power supply missing
U _L	Green Off	Actuator power supply applied Actuator power supply missing

Pin Assignment

LAN Connection M12, D-coded	Power Supply 7/8"	In-/Output M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD- Housing = shielded</p>	 <p>1 = +24 V Actuators 2 = +24 V Logic/Sensors 3 = GND (0 V) Logic/Sensors 4 = GND (0 V) Actuators Housing = FE</p>	 <p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth Housing = FE</p>



0980 ESL 710

The application of these products in harsh environments should always be checked before use. Technical modifications reserved.



I/O Modules Active – Stand-Alone: PROFIBUS



Be certain. Belden.

PROFIBUS – Process Field Bus

PROFIBUS (Process Field Bus) is an open fieldbus standard in compliance with the international standard EN 50170. To meet various demands in automation technology PROFIBUS is subdivided into three different profiles:

- PROFIBUS-FMS (Field Message Specification): Protocol for communication between different control systems (PLCs or PCs)
- PROFIBUS-PA (Process Automation): Intrinsically safe bus system for process technology
- PROFIBUS-DP (Decentral Periphery): Transmission protocol for the communication between control system and decentral input/output assemblies

The I/O Modules from Lumberg Automation Support the PROFIBUS-DP Protocol

Thanks to support from most leading control unit manufacturers, and to vendor-independent enhanced development by PNO (Profibus User Organization), PROFIBUS will also play an important role in field bus systems in the future.



Reliable PROFIBUS
solutions for industrial
automation technology
worldwide.

General Technical Data

Transmission medium

- 2-wire, shielded cable (according to RS485)
- Hybrid cable for the transmission of data and supply voltage

Network topology

Line structure with active bus termination (resistance network) at both ends of a segment.

Number of devices

- 32 per segment
- Repeaters can be used to expand the bus to up 126 participants

Reliable transmission rates and segment lengths

This depends on the transmission rate (Baud rate) the segment lengths and the number of repeaters which can be switched serially.

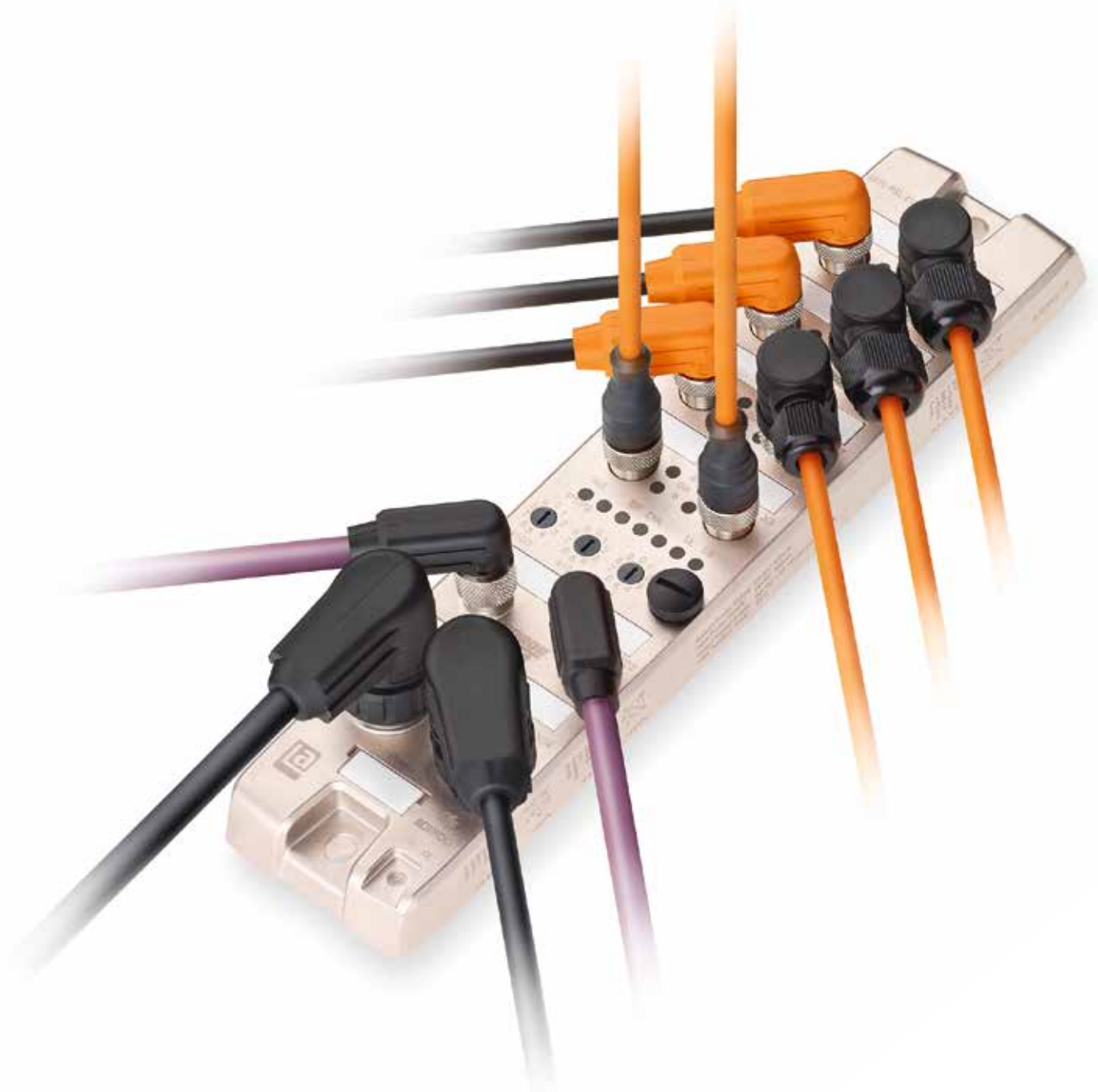
Bit/s	9.6 k	19.2 k	45.45 k	93.75 k	187.5 k	500.0 k	1.5 M	3, 6, 12 M
Length (m)	1.200	1.200	1.200	1.200	1.000	400	200	100
Max. number of repeaters	7	7	7	7	7	7	4	4

Configuration of devices

The individual participants are projected by means of the GSD files (configuration file) which are provided by the manufacturer for each slave. The GSD files for the Lumberg Automation bus modules can be downloaded from www.lumberg-automation.com/downloads.



Addressing

An individual address is allocated to each participant via rotary address switches (address 1...99) or addressing tools (address 1...126).



PROFIBUS – Digital Inputs

Technical Information

Product Description	
Type	0970 PSL 811-PB-DP 16DI-M12-R
	 
Description	LioN-R PROFIBUS-DP device with 16 digital inputs to connect standard sensors, 8 x M12 socket, A-coded, 5-poles, rotary switches for addressing, PROFIBUS connection 2 x M12, 5-poles, B-coded, power supply 2 x 7/8", 5-poles
Order No.	934770001
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	615 g
Housing Material	Metal (die-cast zinc)
Bus System	
ID Number	0E94
Transmission Rate	max. 12 MBaud
Address Range	1 to 125 dez (default address: 126 dez)
System/Sensors Power Supply (Us)	
Rated Voltage	24 V DC
Voltage Range	18 to 30 V DC
Power Consumption	typ. 60 mA
Input Power Supply	
Voltage Range	min. (Us – 1.5 V)
Sensor Current per Socket	200 mA (at T _{amp} +30 °C)
Indicator	LED green/red
Inputs (Type 3 acc. to IEC 61131-2)	
Number of Digital Channels	16
Rated Voltage	24 V DC
Status Indicator	LED yellow channel A/LED white channel B
Diagnostic Indicator	LED red per port
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces






Bit Assignment

Bit	7	6	5	4	3	2	1	0
	M12 Input							
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

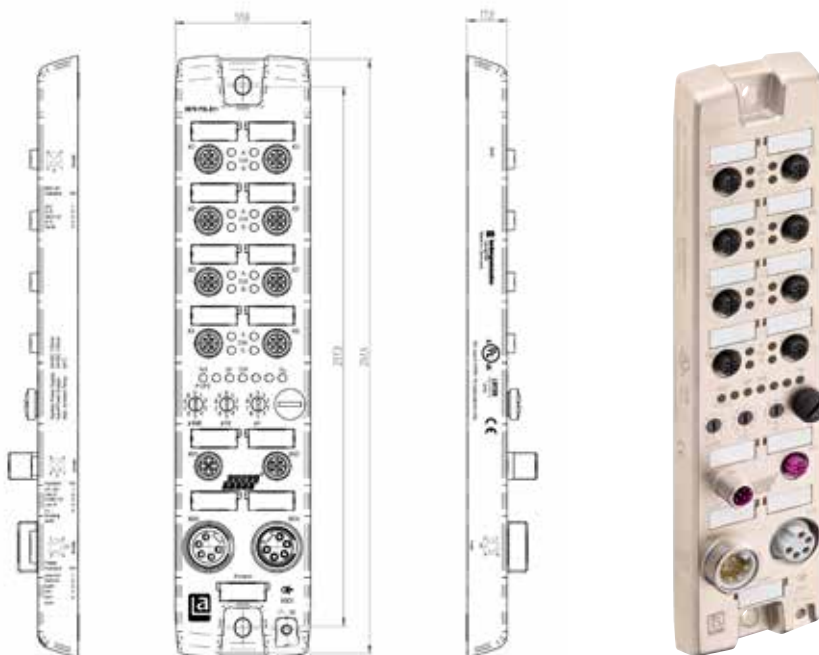
Diagnostic Indication

LED	Indicator	Condition
Us	Green	Logic/sensor power supply OK
Us	Red	Logic/sensor power supply outside limits
UL	Green	Actuator power supply OK
UL	Red	Actuator power supply outside limits
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
ACT	Yellow	PROFIBUS communication active
BF	Red	Bus error, no data exchange with controller
BF	Green	Data exchange with controller
DIA	Green	No peripheral error message available
DIA	Red	Peripheral error message to controller

Pin Assignment

Bus Connection M12, B-coded	Power Supply 7/8"	Input M12, A-coded
 <p>IN M12 male connector, 5-poles</p>	 <p>IN 7/8" male connector, 5-poles</p>	 <p>IN 1 = +24 V DC 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth/FE Housing = FE</p>
 <p>OUT M12 socket, 5-poles</p> <p>1 = VP (+5 V)* 2 = Line A 3 = DGND (0 V)* 4 = Line B 5 = n.c. Housing = shielded</p>	 <p>OUT 7/8" socket, 5-poles</p> <p>1 = GND Actuators UL 2 = GND System/ Sensors US 3 = Earth/FE 4 = +24 V System/ Sensors US 5 = +24 V Actuators UL</p>	

* Signals isolated galvanically from sensors/actuators



0970 PSL 811

PROFIBUS – Digital Inputs

Technical Information

Product Description		
Type	0970 PSL 651	0970 PSL 701
		
Description	LioN-S PROFIBUS-DP device with 8 digital inputs to connect standard sensors, M8 socket, 3-poles, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M12 power supply, 5-poles	LioN-M PROFIBUS-DP device with 16 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, 7/8" power supply, 5-poles
Order No.	75852	75848
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	200 g	380 g
Bus System		
ID Number	09C9 hex	09CA hex
Transmission Rate	max. 12 MB	
Address Range	1 to 125	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	90 mA	120 mA
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	
Sensor Current	100 mA (at T _{amp} +30 °C)	
Indicator	LED green per channel	
Inputs		
Number of Digital Channels	8	16
Rated Voltage	24 V DC	
Status Indicator	LED green per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	4 pieces
Attachable Labels	10 pieces	

Bit Assignment 0970 PSL 651

Bit	7	6	5	4	3	2	1	0
M8 Input								
Byte 0	8	7	6	5	4	3	2	1

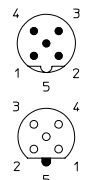
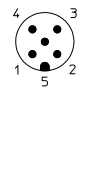

Bit Assignment 0970 PSL 701

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

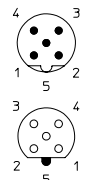
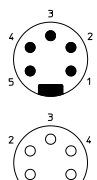
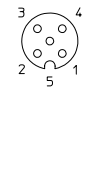
Diagnostic Indication

LED	Indicator	Condition
1...8 (only 0970 PSL 651)	Yellow Red	Channel status Periphery error
1...8 A/B (only 0970 PSL 701)	Yellow	Channel status
1...8 A/B DIA (only 0970 PSL 701)	Red	Periphery error
Us	Green	Sensor/system power supply
BF	Red	Bus error
DIA	Red	Common indication for periphery faults

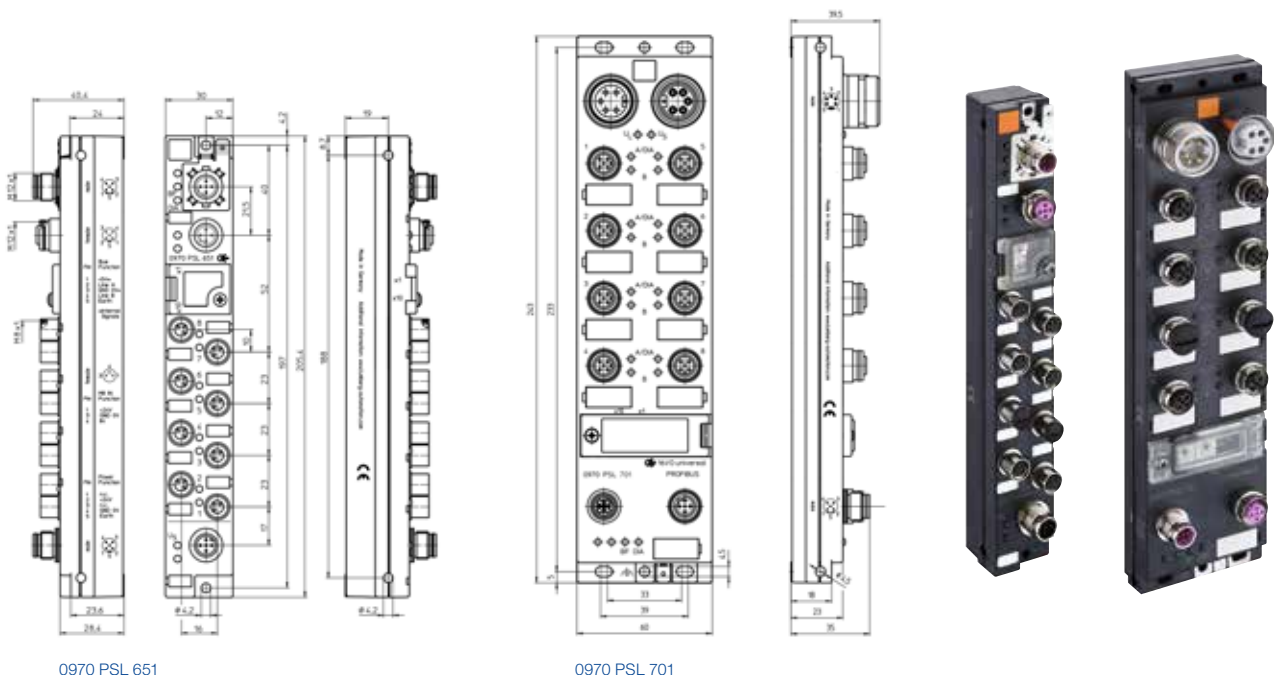
Pin Assignment 0970 PSL 651

Bus Connection M12	Power Supply M12	Input M8
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p> <p>Housing = Earth</p>	 <p>1 = - 2 = +24 V² 3 = GND (0 V) 4 = GND (0 V) 5 = Earth</p>	 <p>1 = +24 V² 3 = GND (0 V) 4 = IN</p>

Pin Assignment 0970 PSL 701











Bus Connection M12	Power Supply 7/8"	Input M12
 <p>1 = +5 V¹ 2 = Line A - GN 3 = GND (0 V)¹ 4 = Line B - RD 5 = Earth</p> <p>Housing = Earth</p>	 <p>1 = GND (0 V) 2 = GND (0 V) 3 = Earth 4 = +24 V 5 = -</p>	 <p>1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth</p>

1 = Internal signals: galvanically separated to sensors
2 = System/sensors



PROFIBUS – Digital Inputs

Technical Information

Product Description		
Type	0970 PSL 111	0970 PSL 114
	    	    
Description	LioN-Classic PROFIBUS-DP device with 16 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M23 power supply, 6-poles	LioN-Classic PROFIBUS-DP device with encapsulated housing, with 8 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M23 power supply, 6-poles
Order No.	27075	28335
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	535 g	
Bus System		
ID Number	044E hex	044F hex
Transmission Rate	max. 12 MB	
Address Range	1 to 125	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	90 mA	60 mA
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	
Sensor Current	100 mA (at T _{amp} +30 °C)	max. 800 mA
Indicator	LED green per channel	
Inputs		
Number of Digital Channels	16	8
Rated Voltage	24 V DC	
Status Indicator	LED green per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0970 PSL 111

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	8A	7A	6A	5A	4A	3A	2A	1A
Byte 1	8B	7B	6B	5B	4B	3B	2B	1B
Diagnostic								
DIA-Byte	–	–	–	OVL	–	–	–	–

OVL: Overload status

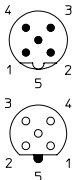


Bit Assignment 0970 PSL 114

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic								
DIA-Byte	–	–	–	OVL	–	–	–	–

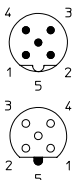


Diagnostic Indication

LED	Indicator	Condition
1...8 A/B (only 0970 PSL 111)	Yellow	Channel status
1...8 (only 0970 PSL 114)	Yellow	Channel status
Us	Green	Sensor supply active
Ul	Green	Module electronic supply active
BF	Red	Bus error
DIA	Red	Module diagnostics (sensor short circuit/sensor overload)

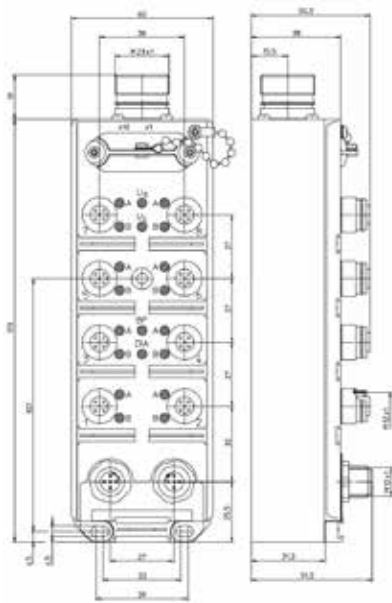
Pin Assignment 0970 PSL 111

Bus Connection M12	Power Supply M23	Input M12
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = Earth 2 = n.c. 3 = n.c. 4 = +24 V² 5 = GND (0 V)² 6 = n.c.</p>	 <p>1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth 6 = n.c.</p>

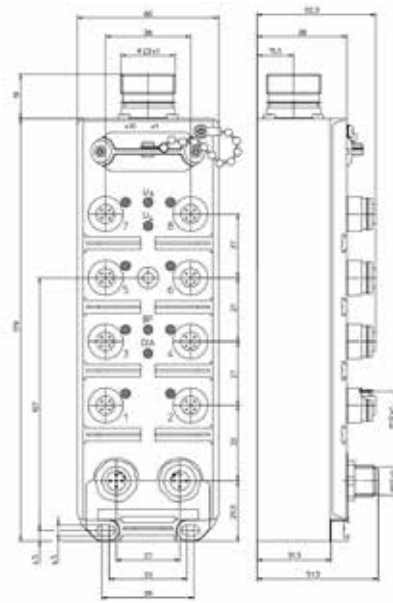
Pin Assignment 0970 PSL 114

Bus Connection M12	Power Supply M23	Input M12
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = Earth 2 = n.c. 3 = n.c. 4 = +24 V² 5 = GND (0 V)² 6 = n.c.</p>	 <p>1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 5 = Earth 6 = n.c.</p>

1 = Internal signals
2 = System/sensors



0970 PSL 111





0970 PSL 114



PROFIBUS – Digital Outputs

Technical Information

Product Description	
Type	0970 PSL 812-PB-DP 16DO-M12-R
	 
Description	LioN-R PROFIBUS-DP device 16 digital output channels with galvanic isolation to connect standard actuators, 8 x M12 socket, A-coded, 5-poles, rotary switches for addressing, PROFIBUS connection 2 x M12, 5-poles, B-coded, power supply 2 x 7/8", 5-poles
Order No.	934770002
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	615 g
Housing Material	Metal (die-cast zinc)
Bus System	
ID Number	0E94
GSD File	LUM_0E94.gsd
Transmission Rate	max. 12 MBaud
Address Range	1 to 125 dez (default address: 126 dez)
System-Stromversorgung	
Rated Voltage	24 V DC
Voltage Range	18 to 30 V DC
Power Consumption	typ. 60 mA
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	18 to 30 V DC
Reverse Polarity Protection	yes/permanent inverse polarity protection
Indicator	LED green
Outputs	
Number of Digital Channels	16
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A per module
Channel Type N.O.	p-switching
Status Indicator	LED yellow channel A/LED white channel B
Diagnostic Indicator	LED red per port
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces






Bit Assignment

Bit	7	6	5	4	3	2	1	0
	M12 Output							
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

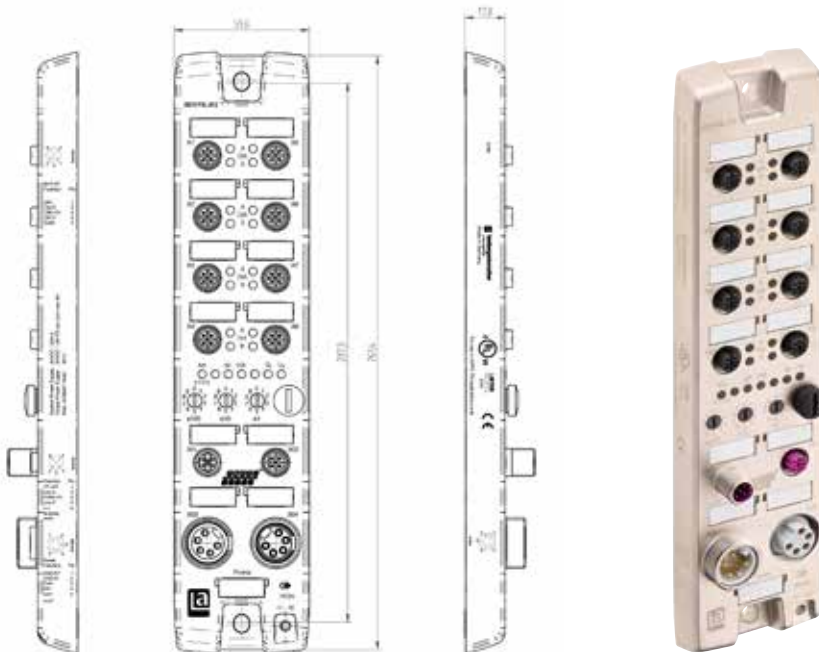
Diagnostic Indication

LED	Indicator	Condition
Us	Green	Logic/sensor power supply OK
Us	Red	Logic/sensor power supply outside limits
UL	Green	Actuator power supply OK
UL	Red	Actuator power supply outside limits
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
ACT	Yellow	PROFIBUS communication active
BF	Red	Bus error, no data exchange with controller
BF	Green	Data exchange with controller
DIA	Green	No peripheral error message available
DIA	Red	Peripheral error message to controller

Pin Assignment

Bus Connection M12, B-coded	Power Supply 7/8"	Output M12, A-coded
 <p>IN M12 male connector, 5-poles</p>	 <p>IN 7/8" male connector, 5-poles</p>	 <p>OUT 1 = n. c. 2 = OUT B 3 = GND 4 = OUT A 5 = Earth/FE Housing = FE</p>
 <p>OUT M12 socket, 5-poles</p> <p>1 = VP (+5 V)* 2 = Line A 3 = DGND (0 V)* 4 = Line B 5 = n.c. Housing = shielded</p>	 <p>OUT 7/8" socket, 5-poles</p> <p>1 = GND Actuators UL 2 = GND System/ Sensors US 3 = Earth/FE 4 = +24 V System/ Sensors US 5 = +24 V Actuators UL</p>	











* Signals isolated galvanically from sensors/actuators



0970 PSL 812

PROFIBUS – Digital Outputs

Technical Information

Product Description		
Type	0970 PSL 112	0970 PSL 124
	    	    
Description	LioN-Classic PROFIBUS-DP device with 8 digital outputs to connect standard actuators, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M23 power supply, 6-poles	LioN-Classic PROFIBUS-DP device with 16 digital outputs to connect standard actuators, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M23 power supply, 6-poles
Order No.	27076	54190
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	535 g	200 g
Bus System		
ID Number	044D hex	06EA hex
Transmission Rate	max. 12 MB	
Address Range	1 to 125	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	60 mA	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs		
Number of Digital Channels	8	16
Rated Output Current	2 A per channel	0.7 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	15 A per module	11.2 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0970 PSL 112

Bit	7	6	5	4	3	2	1	0
M12 Output								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic								
DIA-Byte	–	UVA	ASC	–	–	–	–	–

UVA: Undervoltage actuator
ASC: Actuator short-circuit

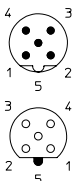

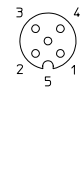
Bit Assignment 0970 PSL 124

Bit	7	6	5	4	3	2	1	0
M12 Output								
Byte 0	8A	7A	6A	5A	4A	3A	2A	1A
Byte 1	8B	7B	6B	5B	4B	3B	2B	1B
Diagnostic								
DIA-Byte	–	UVA	ASC	–	–	–	–	–

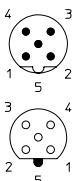

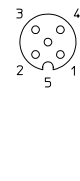
Diagnostic Indication

LED	Indicator	Condition
1...8 A (only 0970 PSL 112)	Yellow	Channel status
1...8 (only 0970 PSL 112)	Red	Actuator short circuit
1...8 A/B (only 0970 PSL 124)	Yellow Red	Channel status Actuator short circuit
Us	Green	Actuator supply active
U _L	Green	Module electronic supply active
BF	Red	Bus error
DIA	Red	Module diagnostics (actuator low voltage/actuator short-circuit/actuator overload)

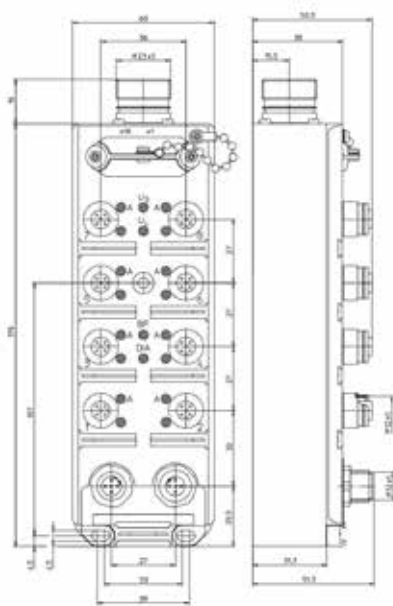
Pin Assignment 0970 PSL 112

Bus Connection M12	Power Supply M23	Output M12
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = Earth 2 = +24 V² 3 = GND (0 V)² 4 = +24 V³ 5 = GND (0 V)³ 6 = n.c.</p>	 <p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 5 = Earth</p>

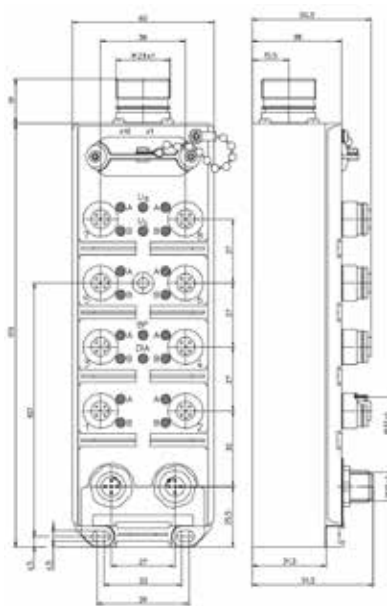
Pin Assignment 0970 PSL 124

Bus Connection M12	Power Supply M23	Output M12
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = Earth 2 = +24 V² 3 = GND (0 V)² 4 = +24 V³ 5 = GND (0 V)³ 6 = n.c.</p>	 <p>1 = n.c. 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = Earth</p>

1 = Internal signals • 2 = Actuators • 3 = System



0970 PSL 112



0970 PSL 124



PROFIBUS – Digital In- and Outputs

Technical Information

Product Description	
Type	0970 PSL 813-PB-DP 8DI8DO-M12-R
	      
Description	LioN-R PROFIBUS-DP device with 8 digital input channels and 8 output channels with galvanic isolation, 8 x M12 socket, A-coded, 5-poles, rotary switches for addressing, PROFIBUS connection 2 x M12, 5-poles, B-coded, power supply 2 x 7/8", 5-poles
Order No.	934770003
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	615 g
Housing Material	Metal (die-cast zinc)
Bus System	
ID Number	0E94
Transmission Rate	max. 12 MBaud
Address Range	1 to 125 dez (default address: 126 dez)
System/Sensors Power Supply (Us)	
Rated Voltage	24 V DC
Voltage Range	18 to 30 V DC
Power Consumption	typ. 60 mA
Input Power Supply	
Voltage Range	min. (Us – 1.5 V)
Sensor Current per Socket	200 mA (at T _{amp} +30 °C)
Indicator	LED green/red
Inputs (Type 3 acc. to IEC 61131-2)	
Number of Digital Channels	8
Rated Voltage	24 V DC
Status Indicator	LED white per channel
Diagnostic Indicator	LED red per port
Output Power Supply	
Rated Voltage	24 V DC
Voltage Range	18 to 30 V DC
Reverse Polarity Protection	yes/permanent inverse polarity protection
Indicator	LED green
Outputs	
Number of Digital Channels	8
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A per module
Channel Type N.O.	p-switching
Status Indicator	LED yellow channel A/LED white channel B
Diagnostic Indicator	LED red per port
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces






Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output								
Byte 0	8B	8A	7B	7A	6B	6A	5B	5A

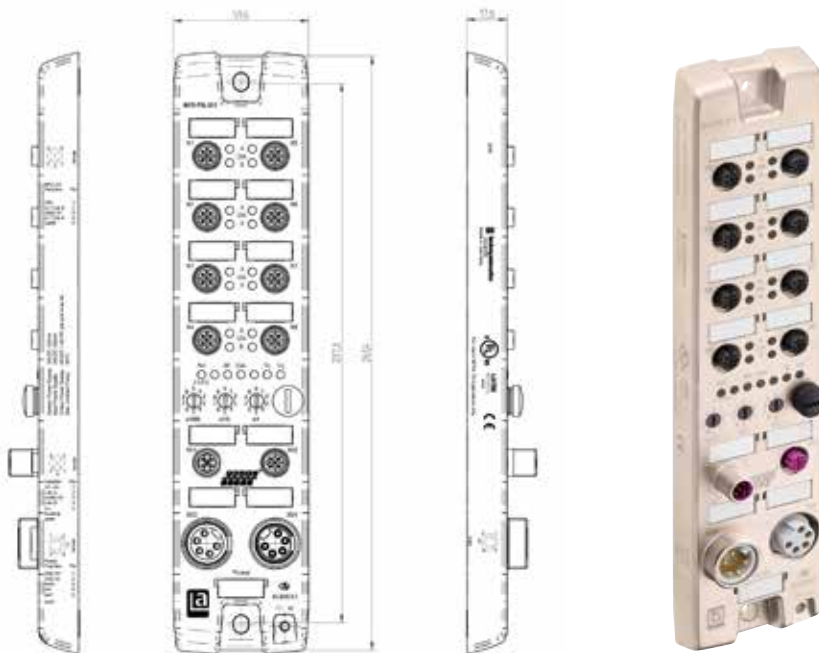
Diagnostic Indication

LED	Indicator	Condition
Us	Green	Logic/sensor power supply OK
Us	Red	Logic/sensor power supply outside limits
UL	Green	Actuator power supply OK
UL	Red	Actuator power supply outside limits
1...8 A	Yellow	Channel status
1...8 DIA A	Red	Periphery error
1...8 B	White	Channel status
1...8 DIA B	Red	Periphery error
ACT	Yellow	PROFIBUS communication active
BF	Red	Bus error, no data exchange with controller
BF	Green	Data exchange with controller
DIA	Green	No peripheral error message available
DIA	Red	Peripheral error message to controller

Pin Assignment

Bus Connection M12, B-coded	Power Supply 7/8"	In-/Output M12, A-coded
 <p>IN M12 male connector, 5-poles</p>	 <p>IN 7/8" male connector, 5-poles</p>	 <p>IN 1 = +24 V DC 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth/FE</p>
 <p>OUT M12 socket, 5-poles</p> <p>1 = VP (+5 V)* 2 = Line A 3 = DGND (0 V)* 4 = Line B 5 = n.c.</p> <p>Housing = shielded</p>	 <p>OUT 7/8" socket, 5-poles</p> <p>1 = GND Actuators UL 2 = GND System/ Sensors US 3 = Earth/FE 4 = +24 V System/ Sensors US 5 = +24 V Actuators UL</p>	<p>OUT 1 = n. c. 2 = OUT B 3 = GND 4 = OUT A 5 = Earth/FE</p> <p>Housing = FE</p>











* Signals isolated galvanically from sensors/actuators



0970 PSL 813

PROFIBUS – Digital In- and Outputs

Technical Information

Product Description		
Type	0970 PSL 113	0970 PSL 123
	    	    
Description	LioN-Classic PROFIBUS-DP device with 8 digital inputs to connect standard sensors and 4 digital outputs to connect standard actuators, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M23 power supply, 6-poles	LioN-Classic PROFIBUS-DP device with 8 digital inputs to connect standard sensors and 8 digital outputs (0.5 A) to connect standard actuators, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M23 power supply, 6-poles
Order No.	27077	54285
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	535 g	
Bus System		
ID Number	0450 hex	06E9 hex
Transmission Rate	max. 12 Mbaud	
Address Range	1 to 126	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	60 mA	
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	
Sensor Current	800 mA	
Indicator	LED green	
Inputs		
Number of Digital Channels	8	
Rated Voltage	24 V DC	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs		
Number of Digital Channels	4	8
Rated Output Current	2 A per channel	0.7 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	8 A per module	5.6 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0970 PSL 113

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	3B	2B	1B	4A	3A	2A	1A
M12 Output								
Byte 0	–	–	–	–	8	6	4	2
Diagnostic								
DIA-Byte	–	UVA	ASC	OVL	–	–	–	–

Bit Assignment 0970 PSL 123

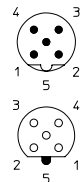

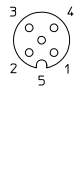
Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	8B	6B	4B	2B	8A	6A	4A	2A
M12 Output								
Byte 0	7B	5B	3B	1B	7A	5A	3A	1A
Diagnostic								
DIA-Byte	–	UVA	ASC	OVL	–	–	–	–

UVA: Undervoltage actuator • ASC: Actuator short-circuit
OVL: Overload status

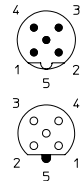

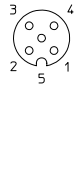
Diagnostic Indication

LED	Indicator	Condition
1, 3, 5, 7 A/B 2, 4, 6, 8 A (only 0970 PSL 113)	Yellow	Channel status
2, 4, 6, 8 (only 0970 PSL 113)	Red	Actuator short circuit
1...8 A/B (only 0970 PSL 123)	Yellow	Channel status
2, 4, 6, 8 A/B (only 0970 PSL 123)	Red	Actuator short circuit
Us	Green	Actuator supply active
UL	Green	Module electronic supply active
BF	Red	Bus error
DIA	Red	Module diagnostics (sensor shortcircuit/sensor overload/ actuator low voltage/actuator short-circuit/actuator overload)

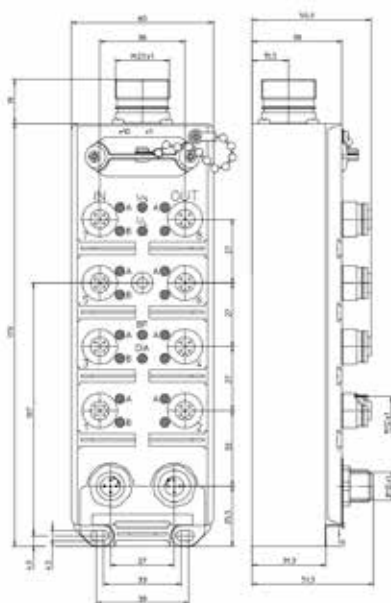
Pin Assignment 0970 PSL 113

Bus Connection M12	Power Supply M23	In-/Output M12												
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = Earth 2 = +24 V² 3 = GND (0 V)² 4 = +24 V³ 5 = GND (0 V)³ 6 = n.c.</p>	 <table border="0"> <tr> <td>IN</td> <td>OUT</td> </tr> <tr> <td>1 = +24 V</td> <td>1 = n.c.</td> </tr> <tr> <td>2 = IN B</td> <td>2 = n.c.</td> </tr> <tr> <td>3 = GND (0 V)</td> <td>3 = GND (0 V)</td> </tr> <tr> <td>4 = IN A</td> <td>4 = OUT</td> </tr> <tr> <td>5 = Earth</td> <td>5 = Earth</td> </tr> </table>	IN	OUT	1 = +24 V	1 = n.c.	2 = IN B	2 = n.c.	3 = GND (0 V)	3 = GND (0 V)	4 = IN A	4 = OUT	5 = Earth	5 = Earth
IN	OUT													
1 = +24 V	1 = n.c.													
2 = IN B	2 = n.c.													
3 = GND (0 V)	3 = GND (0 V)													
4 = IN A	4 = OUT													
5 = Earth	5 = Earth													

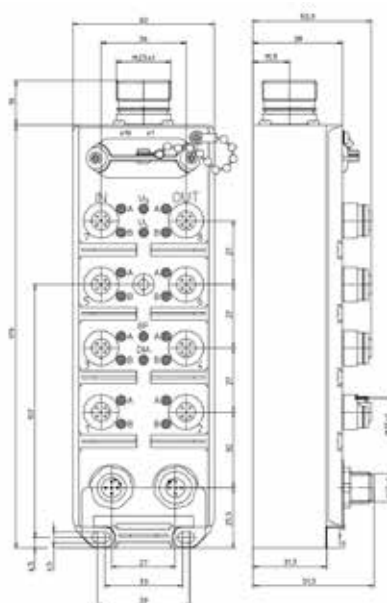
Pin Assignment 0970 PSL 123

Bus Connection M12	Power Supply M23	In-/Output M12												
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = Earth 2 = +24 V² 3 = GND (0 V)² 4 = +24 V³ 5 = GND (0 V)³ 6 = n.c.</p>	 <table border="0"> <tr> <td>IN</td> <td>OUT</td> </tr> <tr> <td>1 = +24 V</td> <td>1 = n.c.</td> </tr> <tr> <td>2 = IN B</td> <td>2 = OUT B</td> </tr> <tr> <td>3 = GND (0 V)</td> <td>3 = GND (0 V)</td> </tr> <tr> <td>4 = IN A</td> <td>4 = OUT A</td> </tr> <tr> <td>5 = Earth</td> <td>5 = Earth</td> </tr> </table>	IN	OUT	1 = +24 V	1 = n.c.	2 = IN B	2 = OUT B	3 = GND (0 V)	3 = GND (0 V)	4 = IN A	4 = OUT A	5 = Earth	5 = Earth
IN	OUT													
1 = +24 V	1 = n.c.													
2 = IN B	2 = OUT B													
3 = GND (0 V)	3 = GND (0 V)													
4 = IN A	4 = OUT A													
5 = Earth	5 = Earth													

1 = Internal signals • 2 = Actuators • 3 = System



0970 PSL 113



0970 PSL 123



PROFIBUS – Digital In- and Outputs (Universal)

Technical Information

Product Description		
Type	0970 PSL 650	0970 PSL 700
		
Description	LioN-S PROFIBUS-DP device with 8 digital I/O channels, channels can be used universally as inputs or outputs, M8 socket, 3-poles, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, M12 power supply, 5-poles	LioN-M PROFIBUS-DP device with 16 digital I/O channels, channels can be used universally as inputs or outputs, combined FIXCON®/M12 socket, rotary switches for addressing, M12 bus connection, 5-poles, B-coded, 7/8" power supply, 5-poles
Order No.	75851	75514
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	200 g	380 g
Bus System		
ID Number	09C9 hex	09CA hex
Transmission Rate	max. 12 MB	
Address Range	1 to 125	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	60 mA	120 mA
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	
Sensor Current	90 mA	200 mA (at T _{amp} +30 °C)
Indicator	LED green	
Inputs		
Number of Digital Channels	max. 8	max. 16
Rated Voltage	24 V DC	
Status Indicator	LED green per channel	
Diagnostic Indicator	LED red per channel	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs		
Number of Digital Channels	max. 8	max. 16
Rated Output Current	2 A per channel	1.6 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	4 A per module	9 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	LED red per channel/socket
Included in Delivery		
M12 Dust Covers	2 pieces	4 pieces
Attachable Labels	10 pieces	

Bit Assignment 0970 PSL 650

Bit	7	6	5	4	3	2	1	0
M8 Input								
Byte 0	8	7	6	5	4	3	2	1
M8 Output								
Byte 0	8	7	6	5	4	3	2	1





Bit Assignment 0970 PSL 700

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
M12 Output								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A






Diagnostic Indication

LED	Indicator	Condition
1...8 (only 0970 PSL 650)	Yellow Red	Channel status Periphery error
1...8 A/B (only 0970 PSL 700)	Yellow	Channel status
1...8 A/B DIA (only 0970 PSL 700)	Red	Periphery error
Us	Green	Sensor/system power supply
Ul	Green	Actuator power supply
BF	Red	Bus error
DIA	Red	Common indication for periphery faults

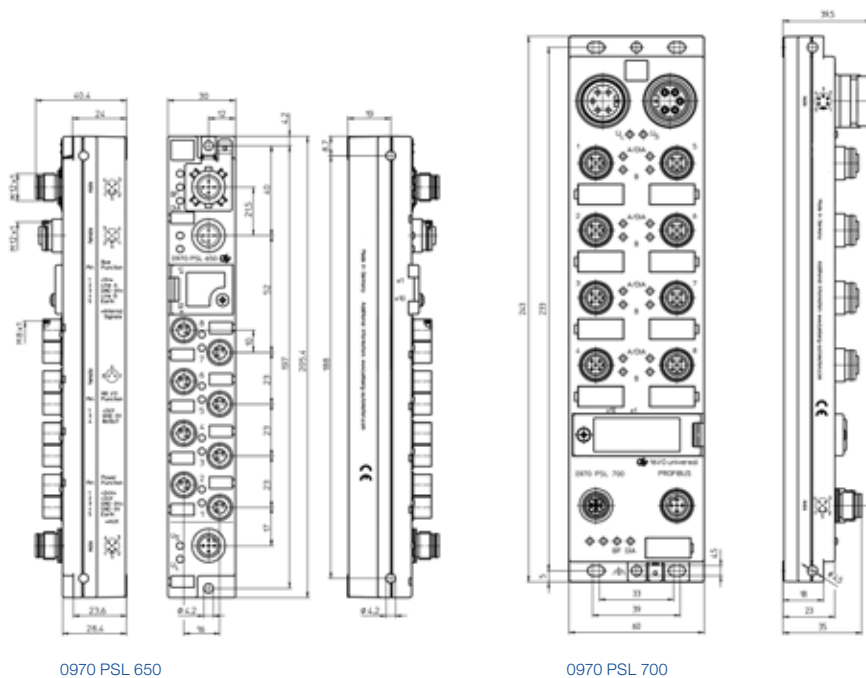
Pin Assignment 0970 PSL 650

Bus Connection M12	Power Supply M12	In-/Output M8
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = +24 V² 2 = +24 V³ 3 = GND (0 V)² 4 = GND (0 V)³ 5 = Earth</p>	 <p>1 = +24 V³ 3 = GND (0 V) 4 = IN/OUT</p>
 <p>Housing = Earth</p>		

Pin Assignment 0970 PSL 700

Bus Connection M12	Power Supply 7/8"	In-/Output M12
 <p>1 = +5 V¹ 2 = Line A - GN 3 = GND (0 V)¹ 4 = Line B - RD 5 = Earth</p>	 <p>1 = GND (0 V)² 2 = GND (0 V)³ 3 = Earth 4 = +24 V³ 5 = +24 V²</p>	 <p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth</p>
 <p>Housing = Earth</p>		

1 = Internal signals: galvanically separated to sensors/actuators • 2 = Actuators • 3 = System/sensors



0970 PSL 650

0970 PSL 700



I/O Modules Active – Stand-Alone: DeviceNet™



Be certain. Belden.

DeviceNet™ – Versatile Use in Factory Automation

DeviceNet™

DeviceNet™ is part of the CIP protocol family. CIP stands for "Common Industrial Protocol". It is the platform for several communication protocols including DeviceNet, EtherNet/IP and CompoNet, as well as protocol enhancements for safety applications (CIP Safety) and motion control (CIP Motion).

DeviceNet™ is a fieldbus system for the direct connection of sensors and actuators in the

field (e.g. proximity switches, motor starters, valves, etc.). DeviceNet™ originated in North America and is presently used worldwide in all areas of plant automation.

DeviceNet™ is based on the CAN specifications (Controller Area Network). However, unlike CAN it is restricted in functionality for easier implementation.

Robust and reliable for meeting the strictest electro-mechanical requirements.

General Technical Data

Transmission medium

The individual stations are generally connected via a hybrid cable to transmit data (according to RS485) and for power supply (module electronics and sensors). It is made of 2 twisted and shielded pairs of wires contained inside another 360° shielding.

There are two standardized types of cable:

- "Thick cable" for the trunk line
- "Thin cable" with smaller cable cross sections for drop lines

Network topology

Line structure with drop lines or for drop lines only. The trunk line is terminated by resistors on both sides, the drop lines do not require a terminating resistor.

Number of devices

- 64 nodes (including master)

Admissible transmission rates and line lengths

Depending on the transmission rate (Baud rate) the admissible cable lengths (main and stub lines) change as follows:

Transmission Rate	125 kbit/s	250 kbit/s	500 kbit/s
Max. line length main line (thick cable)	500 m (1.640 ft.)	250 m (820 ft.)	100 m (328 ft.)
Max. line length drop line	6 m (20 ft.)	6 m (20 ft.)	6 m (20 ft.)
Max. line length drop lines accumulated	156 m (512 ft.)	78 m (256 ft.)	39 m (128 ft.)

Configuration of devices

The individual participants are configured by means of the EDS files (Electronic Data Sheet) which are provided by the manufacturer for each slave. The EDS files for the Lumberg Automation bus modules can be downloaded from www.lumberg-automation.com/downloads.

Addressing

Addressing is implemented via software or rotary address switches. Software addressing can be implemented via addressing tools or the master.



DeviceNet™ – Digital Inputs

Technical Information

Product Description		
Type	0930 DSL 651	0930 DSL 701
	   	   
Description	LioN-S DeviceNet™ device with 8 digital inputs to connect standard sensors, M8 socket, 3-poles, rotary switches for addressing, M12 bus connection, 5-poles	LioN-M DeviceNet™ device with 16 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, 7/8" bus connection, 5-poles
Order No.	75854	75850
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	190 g	380 g
Bus System		
Transmission Rate	max. 500 kBaud	
Address Range	0 to 63	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	11 to 30 V DC	
Power Consumption	60 mA	100 mA
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	
Sensor Current	100 mA (at T _{amp} +30 °C)	200 mA (at T _{amp} +30 °C)
Indicator	LED green	
Inputs (Type 3 acc. to IEC 61131-2)		
Number of Digital Channels	max. 8	max. 16
Rated Voltage	24 V DC	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	–
Included in Delivery		
M12 Dust Covers	2 pieces	4 pieces
Attachable Labels	10 pieces	

Bit Assignment 0930 DSL 651

Bit	7	6	5	4	3	2	1	0
M8 Input								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic								
Byte 1	S8	S7	S6	S5	S4	S3	S2	S1

S1 to 8: Socket status 1 to 8

Bit Assignment 0930 DSL 701




Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
Diagnostic								
Byte 2	S8	S7	S6	S5	S4	S3	S2	S1

Diagnostic Indication




LED	Indicator	Condition
1...8 (only 0930 DSL 651)	Yellow Red	Channel status Periphery error
1...8 A/B (only 0930 DSL 701)	Yellow	Channel status
1...8 A/DIA (only 0930 DSL 701)	Red	Periphery error
Us	Green	Sensor power supply
U _L (only 0930 DSL 651)	Green	Actuator power supply
MS (Module status)	Green Green blinking Red Red blinking Red/green blinking	Device is ready for operating Wrong configuration Unrecoverable fault Recoverable fault Self test is running
NS (Network status)	Green Green blinking Red blinking Red	Online, communication with PLC Online, no communication with PLC Time-out state of one or more I/O connections Failed communication device, Bus-off status, duplicate MAC-ID

The diagnostic message of the fieldbus is made at the DeviceNet™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.

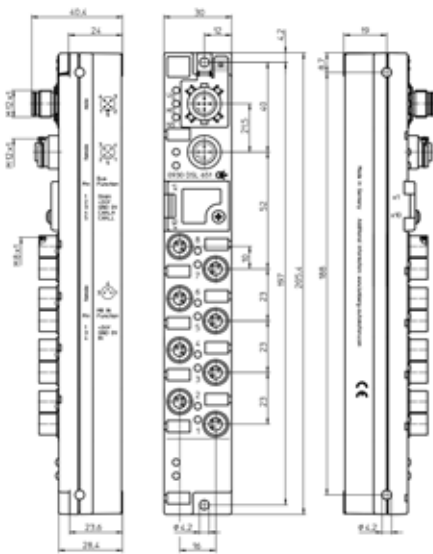
Pin Assignment 0930 DSL 651

Bus Connection M12	Input M8
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = +24 V 3 = GND (0 V) 4 = IN</p>
	

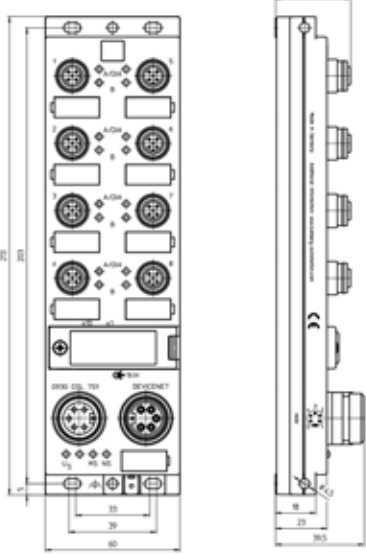
Pin Assignment 0930 DSL 701

Bus Connection 7/8"	Input M12
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth</p>
 <p>Housing = Earth</p>	

1 = System/sensors



0930 DSL 651







0930 DSL 701



DeviceNet™ – Digital Inputs

Technical Information

Product Description	
Type	0930 DSL 108
	 
Type	0930 DSL 109
	 
Description	LioN-Classic DeviceNet™ device with 16 digital inputs (p-switching) to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles
Description	LioN-Classic DeviceNet™ device with 16 digital inputs (n-switching) to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles
Order No.	29794
Order No.	29796
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	0 °C to +60 °C
Weight	570 g
Bus System	
Transmission Rate	max. 500 kBaud
Address Range	0 to 63
System/Sensors Power Supply	
Rated Voltage	24 V DC
Voltage Range	11 to 30 V DC
Power Consumption	max. 80 mA
Input Power Supply	
Voltage Range	min. (U _{System} – 1.5 V)
Sensor Current	max. 800 mA
Indicator	LED green
Inputs (Type 3 acc. to IEC 61131-2)	
Number of Digital Channels	16
Rated Voltage	24 V DC
Status Indicator	LED yellow per channel
Diagnostic Indicator	–
Included in Delivery	
M12 Dust Covers	2 pieces
Attachable Labels	10 pieces

Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	8A	7A	6A	5A	4A	3A	2A	1A
Byte 1	8B	7B	6B	5B	4B	3B	2B	1B
Diagnostic								
Byte 2	OVL	–	–	–	–	–	–	–




OVL: Overload status

Diagnostic Indication

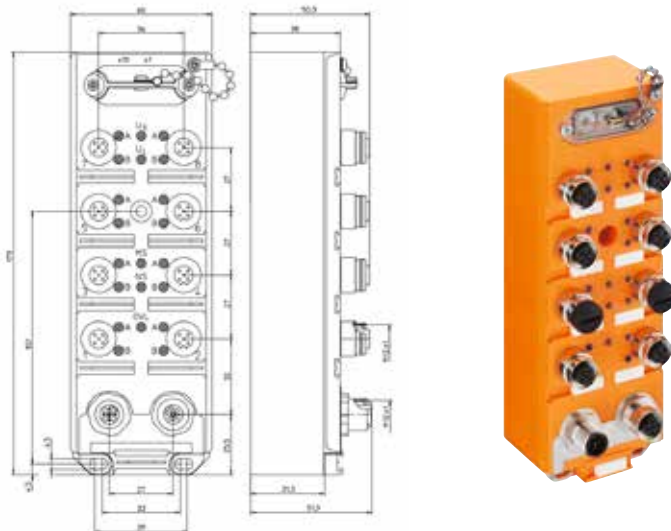
LED	Indicator	Condition
1...8 A/B	Yellow	Channel status
Us	Green	Sensor power supply
U _L	Green	Module electronic supply
OVL	Red	Sensor short circuit/sensor overload
MS (Module status)	Green Green blinking Red Red blinking Red/green blinking	Device is ready for operating Wrong configuration Unrecoverable fault Recoverable fault Self test is running
NS (Network status)	Green Green blinking Red blinking Red	Online, communication with PLC Online, no communication with PLC Time-out state of one or more I/O connections Failed communication device, Bus-off status, duplicate MAC-ID

The diagnostic message of the fieldbus is made at the DeviceNet™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.

Pin Assignment

Bus Connection M12	Input M12
 <ul style="list-style-type: none"> 1 = Drain 2 = +24 V ¹ 3 = GND (0 V) ¹ 4 = CAN_H 5 = CAN_L 	 <ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth
	





1 = System/sensors



0930 DSL 108 | 0930 DSL 109

DeviceNet™ – Digital Inputs

Technical Information

Product Description	
Type	0930 DSL 312
	 
Type	0930 DSL 313
	 
Description	<p>LioN-Classic DeviceNet™ device with 16 digital inputs (p-switching) to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, 7/8" bus connection, 5-poles</p>
Description	<p>LioN-Classic DeviceNet™ device with 16 digital inputs (n-switching) to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, 7/8" bus connection, 5-poles</p>
Order No.	45134
Order No.	45135
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	0 °C to +60 °C
Weight	570 g
Bus System	
Transmission Rate	max. 500 kBaud
Address Range	0 to 63
System/Sensors Power Supply	
Rated Voltage	24 V DC
Voltage Range	11 to 30 V DC
Power Consumption	max. 80 mA
Input Power Supply	
Voltage Range	min. (U _{System} – 1.5 V)
Sensor Current	max. 800 mA
Indicator	LED green
Inputs (Type 3 acc. to IEC 61131-2)	
Number of Digital Channels	16
Rated Voltage	24 V DC
Status Indicator	LED yellow per channel
Diagnostic Indicator	–
Included in Delivery	
M12 Dust Covers	2 pieces
Attachable Labels	10 pieces











Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	8A	7A	6A	5A	4A	3A	2A	1A
Byte 1	8B	7B	6B	5B	4B	3B	2B	1B
Diagnostic								
Byte 2	OVL	–	–	–	–	–	–	–

OVL: Overload status

DeviceNet™ – Digital Outputs

Technical Information

Product Description		
Type	0930 DSL 107	0930 DSL 114
	    	    
Description	LioN-Classic DeviceNet™ device with 8 digital outputs (2 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles, 7/8" actuator supply, 3-poles	LioN-Classic DeviceNet™ device with 16 digital outputs (0.7 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles, 7/8" actuator supply, 3-poles
Order No.	29950	53718
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	570 g	
Bus System		
Transmission Rate	max. 500 kBaud	
Address Range	0 to 63	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	11 to 30 V DC	
Power Consumption	max. 80 mA	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs (Type 2 A acc. to IEC 61131-2)		
Number of Digital Channels	8	16
Rated Output Current	2 A per channel	0.7 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	12 A per module	11.2 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0930 DSL 107

Bit	7	6	5	4	3	2	1	0
M12 Output								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic Input								
Byte 0	-	-	-	-	-	-	ASC	UVA

ASC: Actuator short-circuit
UVA: Undervoltage actuator

Bit Assignment 0930 DSL 114

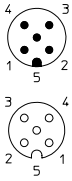


Bit	7	6	5	4	3	2	1	0
M12 Output								
Byte 0	8A	7A	6A	5A	4A	3A	2A	1A
Byte 1	8B	7B	6B	5B	4B	3B	2B	1B
Diagnostic Input								
Byte 0	-	-	-	-	-	-	ASC	UVA

Diagnostic Indication

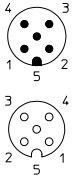


LED	Indicator	Condition
1...8 A (only 0930 DSL 107)	Yellow	Channel status
1...8 (only 0930 DSL 107)	Red	Actuator short-circuit/actuator overload
1...8 A/B (only 0930 DSL 114)	Yellow Red	Channel status Actuator short-circuit/actuator overload
Us	Green	Actuator power supply
U _L	Green	Module electronic supply
MS (Module status)	Green Green blinking Red Red blinking Red/green blinking	Device is ready for operating Wrong configuration Unrecoverable fault Recoverable fault Self test is running
NS (Network status)	Green Green blinking Red blinking Red	Online, communication with PLC Online, no communication with PLC Time-out state of one or more I/O connections Failed communication device, Bus-off status, duplicate MAC-ID

The diagnostic message of the fieldbus is made at the DeviceNet™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.

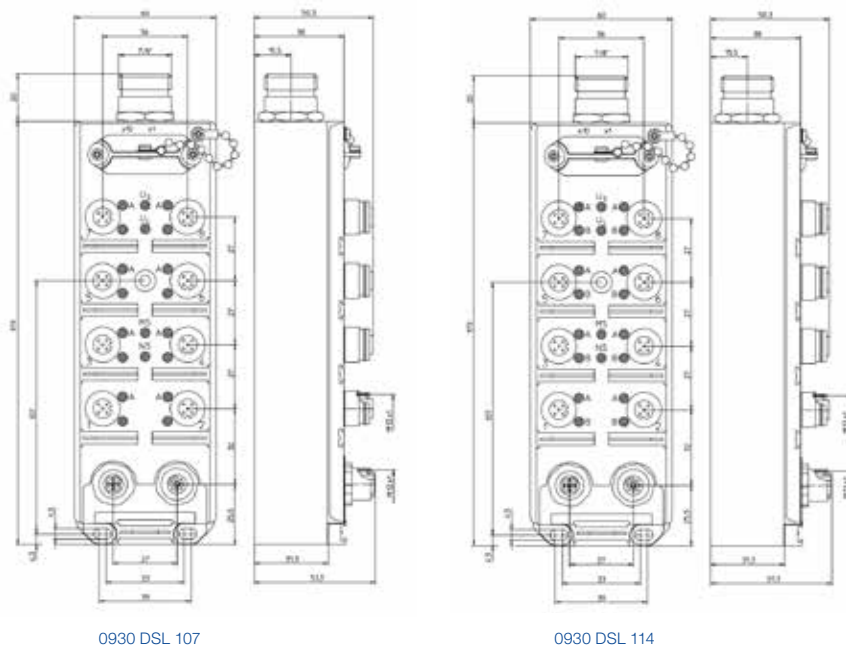
Pin Assignment 0930 DSL 107

Bus Connection M12	Actuator Supply 7/8"	Output M12
 <ul style="list-style-type: none"> 1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L 	 <ul style="list-style-type: none"> 1 = Earth 2 = +24 V 3 = GND (0 V) 	 <ul style="list-style-type: none"> 1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 5 = Earth

Pin Assignment 0930 DSL 114











Bus Connection M12	Actuator Supply 7/8"	Output M12
 <ul style="list-style-type: none"> 1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L 	 <ul style="list-style-type: none"> 1 = Earth 2 = +24 V 3 = GND (0 V) 	 <ul style="list-style-type: none"> 1 = n.c. 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = Earth

1 = System



DeviceNet™ – Digital Outputs

Technical Information

Product Description		
Type	0930 DSL 311	0930 DSL 315
	    	    
Description	LioN-Classic DeviceNet™ device with 8 digital outputs (2 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, 7/8" bus connection, 5-poles, 7/8" actuator supply, 3-poles	LioN-Classic DeviceNet™ device with 16 digital outputs (0.7 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, 7/8" bus connection, 5-poles, 7/8" actuator supply, 3-poles
Order No.	45133	53746
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	570 g	
Bus System		
Transmission Rate	max. 500 kBaud	
Address Range	0 to 63	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	11 to 30 V DC	
Power Consumption	max. 80 mA	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs (Type 2 A acc. to IEC 61131-2)		
Number of Digital Channels	8	16
Rated Output Current	2 A per channel	0.7 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	12 A per module	11.2 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0930 DSL 311

Bit	7	6	5	4	3	2	1	0
M12 Output								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic Input								
Byte 0	-	-	-	-	-	-	ASC	UVA

ASC: Actuator short-circuit
UVA: Undervoltage actuator

Bit Assignment 0930 DSL 315

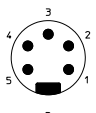

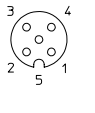

Bit	7	6	5	4	3	2	1	0
M12 Output								
Byte 0	8A	7A	6A	5A	4A	3A	2A	1A
Byte 1	8B	7B	6B	5B	4B	3B	2B	1B
Diagnostic Input								
Byte 0	-	-	-	-	-	-	ASC	UVA

Diagnostic Indication

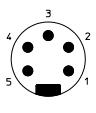

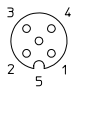

LED	Indicator	Condition
1...8 A (only 0930 DSL 311)	Yellow	Channel status
1...8 (only 0930 DSL 311)	Red	Actuator short-circuit/actuator overload
1...8 A/B (only 0930 DSL 315)	Yellow Red	Channel status Actuator short-circuit/actuator overload
Us	Green	Actuator power supply
U _L	Green	Module electronic supply
MS (Module status)	Green Green blinking Red Red blinking Red/green blinking	Device is ready for operating Wrong configuration Unrecoverable fault Recoverable fault Self test is running
NS (Network status)	Green Green blinking Red blinking Red	Online, communication with PLC Online, no communication with PLC Time-out state of one or more I/O connections Failed communication device, Bus-off status, duplicate MAC-ID

The diagnostic message of the fieldbus is made at the DeviceNet™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.

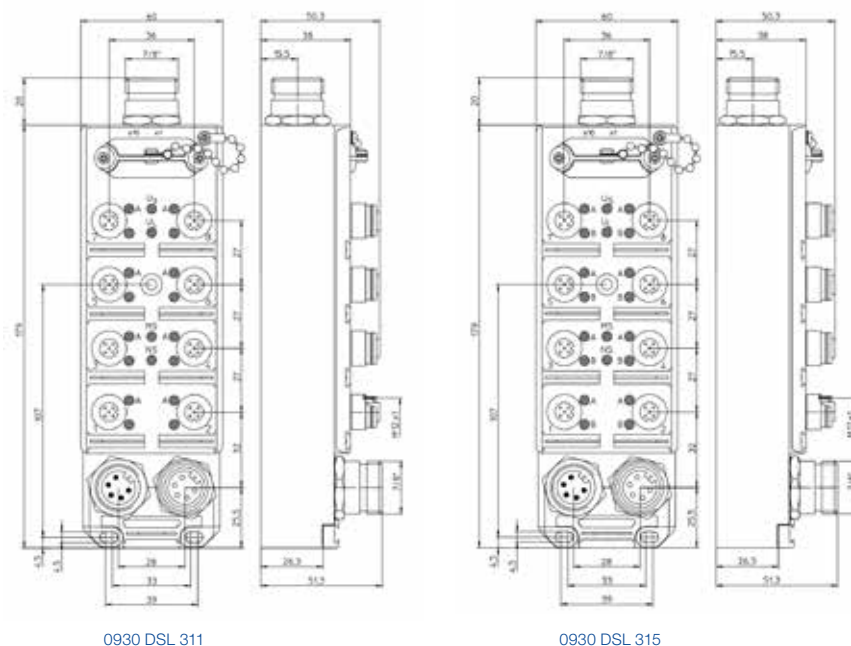
Pin Assignment 0930 DSL 311

Bus Connection 7/8"	Actuator Supply 7/8"	Output M12
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = Earth 2 = +24 V 3 = GND (0 V)</p>	 <p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 5 = Earth</p>
		

Pin Assignment 0930 DSL 315











Bus Connection 7/8"	Actuator Supply 7/8"	Output M12
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = Earth 2 = +24 V 3 = GND (0 V)</p>	 <p>1 = n.c. 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = Earth</p>
		

1 = System



DeviceNet™ – Digital In- and Outputs

Technical Information

Product Description		
Type	0930 DSL 113	0930 DSL 314
	    	    
Description	LioN-Classic DeviceNet™ device with 8 digital inputs to connect standard sensors and 8 digital outputs (0.5 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles, 7/8" actuator supply, 3-poles	LioN-Classic DeviceNet™ device with 8 digital inputs to connect standard sensors and 8 digital outputs (0.5 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, 7/8" bus connection, 5-poles, 7/8" actuator supply, 3-poles
Order No.	51889	50629
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	535 g	
Bus System		
Transmission Rate	max. 500 kBaud	
Address Range	0 to 63	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	11 to 30 V DC	
Power Consumption	max. 80 mA	
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	
Sensor Current	max. 800 mA	
Indicator	LED green	
Inputs (Type 2 acc. to IEC 61131-2)		
Number of Digital Channels	8	
Rated Voltage	24 V DC	
Status Indicator	LED green per channel	
Diagnostic Indicator	LED red per channel	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs (Type 0.5 A acc. to IEC 61131-2)		
Number of Digital Channels	8	
Rated Output Current	0.7 A per channel	
Short Circuit-proof	yes	
Max. Current Carrying Capacity	5.6 A per module	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	7B	5B	3B	1B	7A	5A	3A	1A
M12 Output								
Byte 0	8B	6B	4B	2B	8A	6A	4A	2A
Diagnostic Input								
Byte 1	OVL	–	–	–	–	–	ASC	UVA

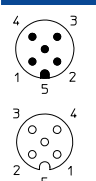

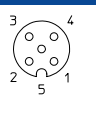
OVL: Overload status
 ASC: Actuator short-circuit
 UVA: Undervoltage actuator

Diagnostic Indication

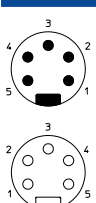

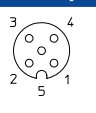
LED	Indicator	Condition
1...8 A/B	Yellow	Channel status
2, 4, 6, 8 A/B	Red	Actuator short-circuit/actuator overload
Us	Green	Actuator power supply
U _L	Green	Module electronic supply
OVL	Red	Sensor short circuit/sensor overload
MS (Module status)	Green Green blinking Red Red blinking Red/green blinking	Device is ready for operating Wrong configuration Unrecoverable fault Recoverable fault Self test is running
NS (Network status)	Green Green blinking Red blinking Red	Online, communication with PLC Online, no communication with PLC Time-out state of one or more I/O connections Failed communication device, Bus-off status, duplicate MAC-ID

The diagnostic message of the fieldbus is made at the DeviceNet™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.

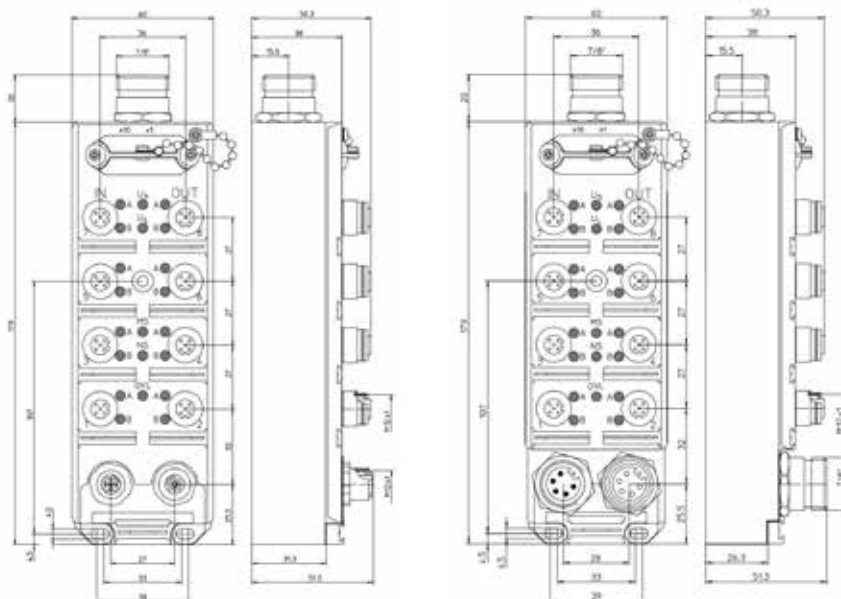
Pin Assignment 0930 DSL 113

Bus Connection M12	Actuator Supply 7/8"	In-/Output M12												
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = Earth 2 = +24 V 3 = GND</p>	 <table border="0"> <tr> <td>IN</td> <td>OUT</td> </tr> <tr> <td>1 = +24 V</td> <td>1 = n.c.</td> </tr> <tr> <td>2 = IN B</td> <td>2 = OUT B</td> </tr> <tr> <td>3 = GND (0 V)</td> <td>3 = GND (0 V)</td> </tr> <tr> <td>4 = IN A</td> <td>4 = OUT A</td> </tr> <tr> <td>5 = Earth</td> <td>5 = Earth</td> </tr> </table>	IN	OUT	1 = +24 V	1 = n.c.	2 = IN B	2 = OUT B	3 = GND (0 V)	3 = GND (0 V)	4 = IN A	4 = OUT A	5 = Earth	5 = Earth
IN	OUT													
1 = +24 V	1 = n.c.													
2 = IN B	2 = OUT B													
3 = GND (0 V)	3 = GND (0 V)													
4 = IN A	4 = OUT A													
5 = Earth	5 = Earth													

Pin Assignment 0930 DSL 314

Bus Connection 7/8"	Actuator Supply 7/8"	In-/Output M12												
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = Earth 2 = +24 V 3 = GND</p>	 <table border="0"> <tr> <td>IN</td> <td>OUT</td> </tr> <tr> <td>1 = +24 V</td> <td>1 = n.c.</td> </tr> <tr> <td>2 = IN B</td> <td>2 = OUT B</td> </tr> <tr> <td>3 = GND (0 V)</td> <td>3 = GND (0 V)</td> </tr> <tr> <td>4 = IN A</td> <td>4 = OUT A</td> </tr> <tr> <td>5 = Earth</td> <td>5 = Earth</td> </tr> </table>	IN	OUT	1 = +24 V	1 = n.c.	2 = IN B	2 = OUT B	3 = GND (0 V)	3 = GND (0 V)	4 = IN A	4 = OUT A	5 = Earth	5 = Earth
IN	OUT													
1 = +24 V	1 = n.c.													
2 = IN B	2 = OUT B													
3 = GND (0 V)	3 = GND (0 V)													
4 = IN A	4 = OUT A													
5 = Earth	5 = Earth													

1 = System/sensors




0930 DSL 113

0930 DSL 314



DeviceNet™ – Digital In- and Outputs (Universal)

Technical Information

Product Description		
Type	0930 DSL 650	0930 DSL 700
		
Description	LioN-S DeviceNet™ device with 8 digital I/O channels, channels can be used universally as inputs or outputs, M8 socket, 3-poles, rotary switches for addressing, M12 bus connection, 5-poles, M12 actuator supply, 5-poles	LioN-M DeviceNet™ device with 16 digital I/O channels, channels can be used universally as inputs or outputs, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, 7/8" bus connection, 5-poles, 7/8" power supply, 4-poles
Order No.	75853	75849
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	200 g	380 g
Bus System		
Transmission Rate	max. 500 kBaud	
Address Range	0 to 63	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	60 mA	90 mA
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	
Sensor Current	100 mA (at T _{amp} +30 °C)	200 mA (at T _{amp} +30 °C)
Indicator	LED green	
Inputs (Type 3 acc. to IEC 61131-2)		
Number of Digital Channels	max. 8	max. 16
Rated Voltage	24 V DC	
Status Indicator	LED green per channel	
Diagnostic Indicator	LED red per channel	LED red per socket
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs		
Number of Digital Channels	max. 8	max. 16
Rated Output Current	0.5 A per channel	1.6 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	4 A per module	9 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	LED red per socket
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0930 DSL 650

Bit	7	6	5	4	3	2	1	0
M8 Input/Output								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic								
Byte 1	S8	S7	S6	S5	S4	S3	S2	S1

S1 to 8: Socket status 1 to 8

Bit Assignment 0930 DSL 700

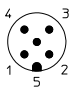
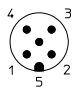
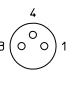

Bit	7	6	5	4	3	2	1	0
M12 Input/Output								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
Diagnostic								
Byte 2	S8	S7	S6	S5	S4	S3	S2	S1

Diagnostic Indication

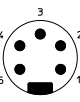

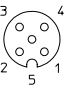
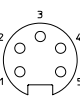

LED	Indicator	Condition
1...8 (only 0930 DSL 650)	Yellow Red	Channel status Periphery error
1...8 A/B (only 0930 DSL 700)	Yellow	Channel status
1...8 A/DIA (only 0930 DSL 700)	Red	Periphery error
Us	Green	Sensor power supply
Ul	Green	Actuator power supply
MS (Module status)	Green Green blinking Red Red blinking Red/green blinking	Device is ready for operating Wrong configuration Unrecoverable fault Recoverable fault Self test is running
NS (Network status)	Green Green blinking Red blinking Red	Online, communication with PLC Online, no communication with PLC Time-out state of one or more I/O connections Failed communication device, Bus-off status, duplicate MAC-ID

The diagnostic message of the fieldbus is made at the DeviceNet™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.

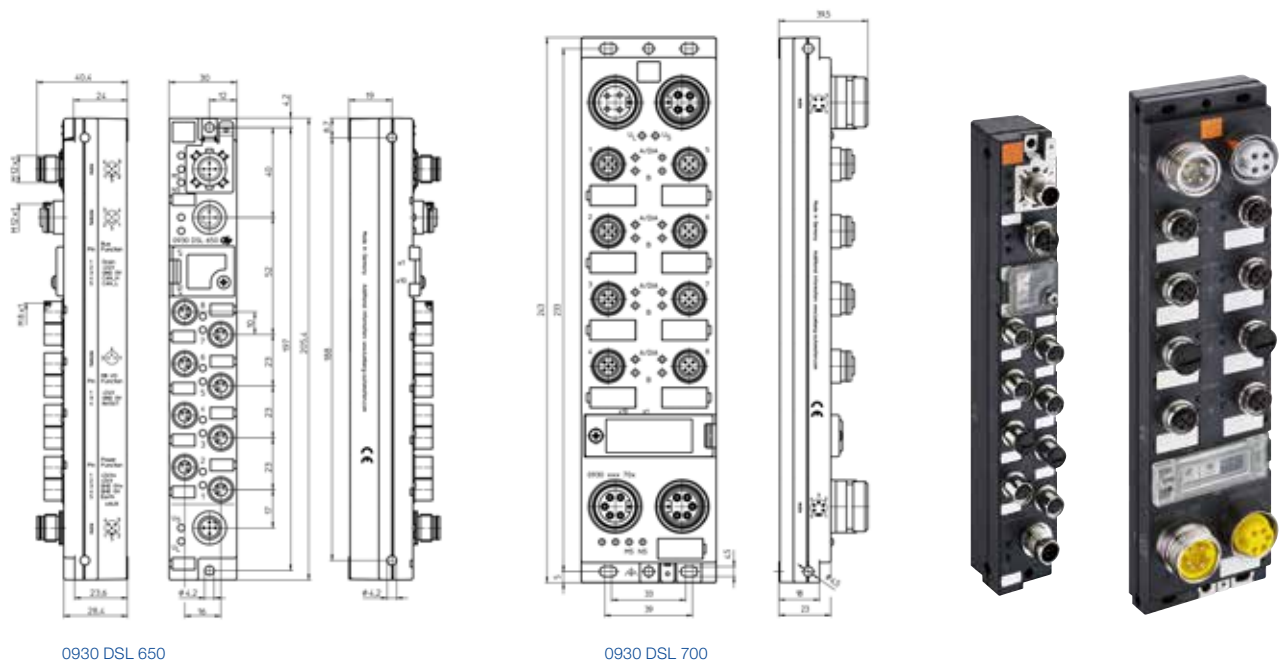
Pin Assignment 0930 DSL 650

Bus Connection M12	Actuator Supply M12	In-/Output M8
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = +24 V² 2 = +24 V³ 3 = GND (0 V)² 4 = GND (0 V)³ 5 = Earth</p>	 <p>1 = +24 V 3 = GND (0 V) 4 = IN/OUT</p>
 <p>Housing = Earth</p>		

Pin Assignment 0930 DSL 700

Bus Connection 7/8"	Power Supply 7/8"	In-/Output M12
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = +24 V² 2 = +24 V³ 3 = Earth 4 = GND (0 V)^{2/3}</p>	 <p>1 = +24 V 2 = IN/OUT B 3 = GND (0 V) 4 = IN/OUT A 5 = Earth</p>
 <p>Housing = Earth</p>	 <p>Housing = Earth</p>	

1 = System: galvanically separated to sensors/actuators • 2 = Actuators • 3 = Sensors



0930 DSL 650

0930 DSL 700



I/O Modules Active – Stand-Alone: CANopen®



Be certain. Belden.

CANopen® – for Decentralized Use

CANopen®

CANopen® is an open communication profile for the CAN Bus (Controller Area Network) developed for automotive engineering. In the

meantime, CANopen® is used in different areas like medical technology, maritime, traffic control, utility vehicles and automation.

Decentralized installation
for optimal space
savings in machines
and systems.

General Technical Data

Transmission medium

The connection between individual stations (nodes) is implemented via a hybrid cable for the transmission of data as well as the system and sensor supply.

It comprises two twisted and shielded lead pairs and total sheathing:

- "Thick cable" as the master line and/or for the bridging of greater distances.
- "Thin cable" with smaller cable cross sections for stub cables and networks of smaller spatial expansion.

Network topology

Line structure or line structure with stub cables. The main line must be terminated with resistors (120 Ω) on both sides.

Number of devices

- 127 nodes (including master)

Admissible transmission rates and line lengths

The maximum admissible length of line depends on the Baud rate used and the number of modules.

Transmission Rate	125 kbit/s	250 kbit/s	500 kbit/s	1.000 kbit/s
Max. line length	–	200 m	100 m	30 m
Max. line length stub line	–	3 m	1 m	0.3 m
Max. line length stub lines accumulated	–	78 m	39 m	3 m

Configuration of devices

The individual participants are configured by means of the EDS files (Electronic Data Sheet) which are provided by the manufacturer for each slave. The EDS files for the Lumberg Automation bus modules can be downloaded from www.lumberg-automation.com/downloads.




Addressing

Addressing is implemented via rotary address switches.



CANopen® - Digital Inputs

Technical Information

Product Description			
Type	0930 CSL 108	0930 CSL 109	0930 CSL 651
			
Description	LioN-Classic CANopen® with 16 digital inputs (p-switching) to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles	LioN-Classic CANopen® device with 16 digital inputs (n-switching) to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles	LioN-S CANopen® device with 8 digital inputs to connect standard sensors, M8 socket, 3-poles, rotary switches for addressing, M12 bus connection, 5-poles
Order No.	54154	54186	85918
Technical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Ambient Temperature	0 °C to +60 °C		-10 °C to +60 °C
Weight	570 g		190 g
Bus System			
Transmission Rate	max. 1000 kBaud		max. 1 MBaud
Address Range	1 to 99		1 to 127
System/Sensors Power Supply			
Rated Voltage	24 V DC		
Voltage Range	11 to 30 V DC		
Power Consumption	max. 80 mA		60 mA
Input Power Supply			
Voltage Range	min. (U _{System} - 1.5 V)		
Sensor Current	max. 800 mA		100 mA (at T _{amp} +30 °C)
Indicator	LED green		
Inputs		(Type 2 acc. to IEC 61131-2)	(Type 3 acc. to IEC 61131-2)
Number of Digital Channels	16		max. 8
Rated Voltage	24 V DC		24 V DC
Status Indicator	LED yellow per channel		LED yellow per channel
Diagnostic Indicator	-		LED red per channel
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	10 pieces		

Bit Assignment 0930 CSL 108/109

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	7B	7A	5B	5A	3B	3A	1B	1A
Byte 1	8B	8A	6B	6A	4B	4A	2B	2A
Diagnostic Input								
Byte 2	OVL	-	-	-	-	UVA	ASC	DIA

OVL: Overload status
UVA: Undervoltage actuator
ASC: Actuator short-circuit
DIA: Diagnostic

Bit Assignment 0930 CSL 651

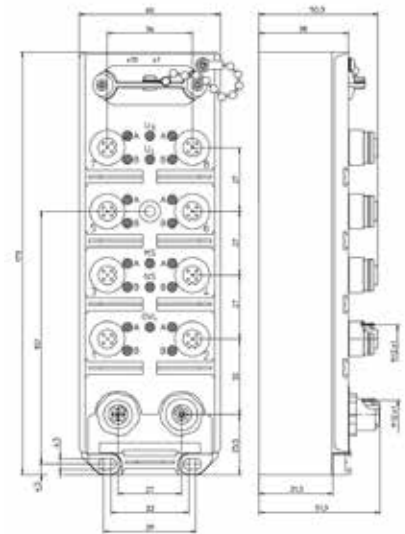
Bit	7	6	5	4	3	2	1	0
M8 Input								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic								
Byte 1	0	0	0	0	0	SSC	0	SSUP
Byte 2	S8	S7	S6	S5	S4	S3	S2	S1

SSC: Sensor short-circuit
SSUP: Sensor underpower diagnostic
S1 to 8: Channel diagnostic 1 to 8

Diagnostic Indication 0930 CSL 108/109

LED	Indicator	Condition
1...8 A/B	Yellow	Channel status
Us	Green	Sensor power supply active
UL	Green	Module electronic supply active
OVL	Red	Sensor short circuit
MS (Module status)	Green Green blinking Red	PDO transfer with PLC No data communication, no connection to PLC the error setting is given to the outputs Invalid module address e.g. "0"
NS (Network status)	Green Green blinking Red blinking Red Red/green blinking Red fast blinking	Cyclic communication with PLC Searching for baudrate Warning bus connection Invalid bus connection No connection to PLC the error setting is given to the outputs Invalid module address e.g. "0"

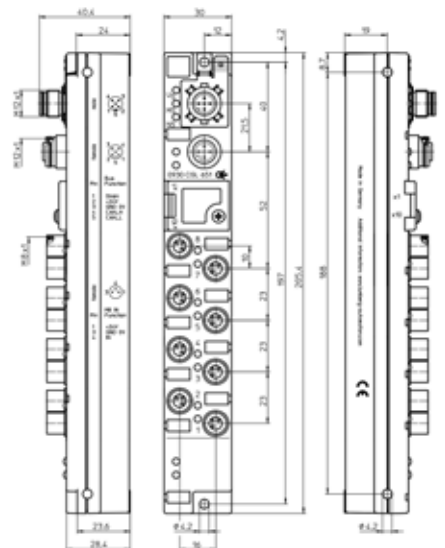
The diagnostic message of the fieldbus is made at the CANopen™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.



0930 CSL 108 | 0930 CSL 109

Diagnostic Indication 0930 CSL 651

LED	Indicator	Condition
1...8	Yellow Red	Channel status Periphery error
Us	Green	Sensor power supply active
MS (Module status)	Green Green blinking Red blinking Red/green blinking	Device is ready for operating 1 Hz CANopen® pre-operational, 2 Hz CANopen® STOP Recoverable fault, e.g. diagnostic CAN Reset
NS (Network status)	Green Green blinking Red/green blinking Red blinking Red	Online, communication with PLC 2 Hz searching for baudrate 1 Hz wrong configuration, e.g. cable length is oversized Time-out state of one or more I/O connections Failed communication device, Bus-off status, duplicate MAC-ID



0930 CSL 651

Pin Assignment



Bus Connection M12	Input M12	Input M8
<ul style="list-style-type: none"> 1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L 	<ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth 	<ul style="list-style-type: none"> 1 = +24 V 3 = GND (0 V) 4 = IN

1 = System/sensors



CANopen® - Digital Outputs

Technical Information

Product Description		
Type	0930 CSL 107	0930 CSL 114
		
Description	LioN-Classic CANopen® device with 8 digital outputs (2 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles, 7/8" actuator supply, 3-poles	LioN-Classic CANopen® device with 16 digital outputs (0.5 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles, 7/8" actuator supply, 3-poles
Order No.	54153	54188
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	570 g	
Bus System		
Transmission Rate	max. 1000 kBaud	
Address Range	1 to 99	
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	11 to 30 V DC	
Power Consumption	max. 80 mA	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	
Indicator	LED green	
Outputs		
	(Type 2 A acc. to IEC 61131-2)	(Type 0.5 A acc. to IEC 61131-2)
Number of Digital Channels	8	16
Rated Output Current	2 A per channel	0.7 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	12 A per module	11.2 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0930 CSL 107

Bit	7	6	5	4	3	2	1	0
Diagnostic Input								
Byte 0	-	-	-	-	-	UVA	ASC	DIA
M12 Output								
Byte 0	8	7	6	5	4	3	2	1

UVA: Undervoltage actuator
 ASC: Actuator short-circuit
 DIA: Diagnostic

Bit Assignment 0930 CSL 114

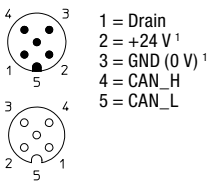
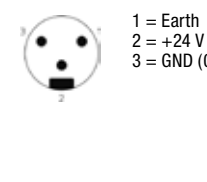
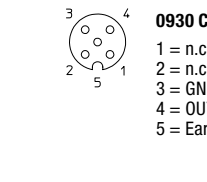
Bit	7	6	5	4	3	2	1	0
Diagnostic Input								
Byte 0	-	-	-	-	-	UVA	ASC	DIA
M12 Output								
Byte 0	7B	7A	5B	5A	3B	3A	1B	1A
Byte 1	8B	8A	6B	6A	4B	4A	2B	2A

Diagnostic Indication

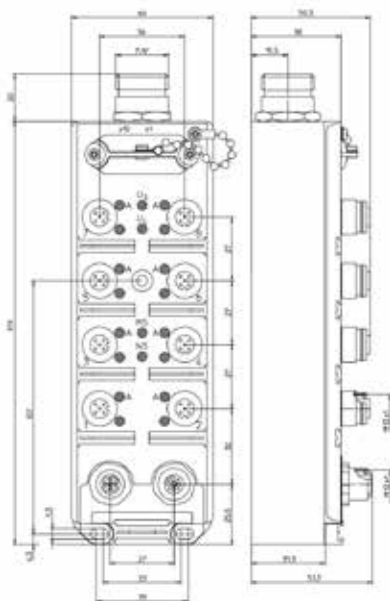
LED	Indicator	Condition
1...8 (only 0930 CSL 107)	Yellow Red	Channel status Actuator short circuit
1...8 A/B (only 0930 CSL 114)	Yellow Red	Channel status Actuator short circuit
Us	Green	Actuator supply active
U _L	Green	Module electronic supply active
MS (Module status)	Green	PDO transfer with PLC
	Green blinking	No data communication, no connection to PLC the error setting is given to the outputs
	Red	Invalid module address e.g. "0"
NS (Network status)	Green	Cyclic communication with PLC
	Green blinking	Searching for baudrate
	Red blinking	Warning bus connection
	Red	Invalid bus connection
	Red/green blinking Red fast blinking	No connection to PLC the error setting is given to the outputs Invalid module address e.g. "0"

The diagnostic message of the fieldbus is made at the CANopen™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.

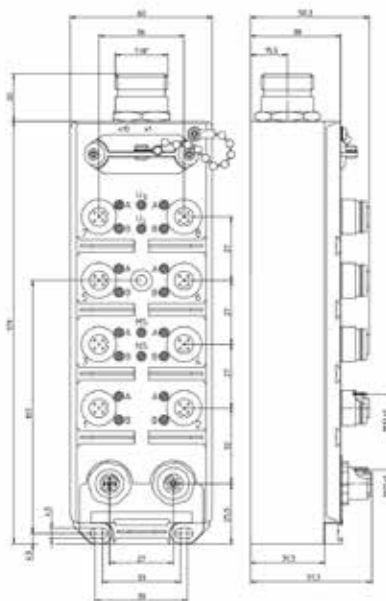
Pin Assignment

Bus Connection M12	Actuator Supply 7/8"	Output M12
 <p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	 <p>1 = Earth 2 = +24 V 3 = GND (0 V)</p>	 <p>0930 CSL 107 1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 5 = Earth</p> <p>0930 CSL 114 1 = n.c. 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = Earth</p>

1 = System/sensors







0930 CSL 107



0930 CSL 114



CANopen® - Digital In- and Outputs (Universal)**Technical Information**

Product Description		
Type	0930 CSL 113	0930 CSL 650
	 	 
Description	LioN-Classic CANopen® device with 8 digital inputs to connect standard sensors and 8 digital outputs (0.5 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, rotary switches for addressing, M12 bus connection, 5-poles, 7/8" actuator supply, 3-poles	LioN-S CANopen® device with 8 digital I/O channels, channels can be used universally as inputs or outputs, M8 socket, 3-poles, rotary switches for addressing, M12 bus connection, 5-poles, M12 actuator supply, 5-poles
Order No.	54187	84418
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	-10 °C to +60 °C
Weight	570 g	200 g
Bus System		
Transmission Rate	max. 1000 kBaud	max. 1 MBaud
Address Range	1 to 99	1 to 127
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	11 to 30 V DC	
Power Consumption	max. 80 mA	60 mA
Input Power Supply		
Voltage Range	min. (U _{System} - 1.5 V)	19 to 30 V DC
Sensor Current	max. 800 mA	100 mA (at T _{amp} +30 °C)
Indicator	LED green	
Inputs		
	(Type 2 acc. to IEC 61131-2)	(Type 3 acc. to IEC 61131-2)
Number of Digital Channels	8	max. 8
Rated Voltage	24 V DC	24 V DC
Status Indicator	LED green per channel	LED yellow per channel
Diagnostic Indicator	LED red per channel	LED red per channel
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Reverse Polarity Protection	yes	yes/antiparallel diode
Indicator	LED green	
Outputs		
	(Type 0.5 A acc. to IEC 61131-2)	
Number of Digital Channels	8	max. 8
Rated Output Current	0.7 A per channel	0.5 A per channel
Short Circuit-proof	yes	
Max. Current Carrying Capacity	5.6 A per module	4 A per module
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0930 CSL 113

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output								
Byte 0	8B	8A	6B	6A	4B	4A	2B	2A
Diagnostic Input								
Byte 1	OVL	-	-	-	-	UVA	ASC	DIA

OVL: Overload status • UVA: Undervoltage actuator
 ASC: Actuator short-circuit
 DIA: Diagnostic

Bit Assignment 0930 CSL 650

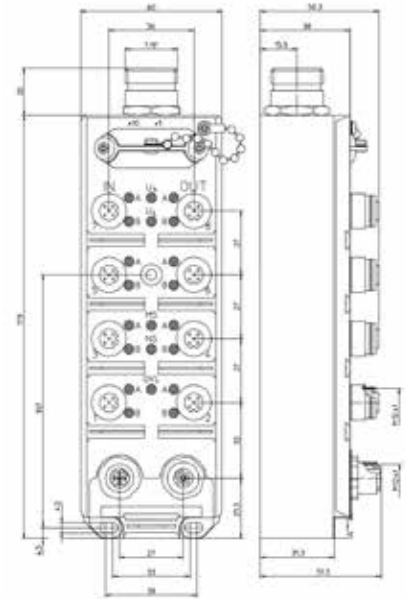
Bit	7	6	5	4	3	2	1	0
M8 Input								
Byte 0	8	7	6	5	4	3	2	1
M8 Output								
Byte 0	8	7	6	5	4	3	2	1
Diagnostic								
Byte 1	0	0	0	0	ASC	SSC	0	SSUP
Byte 2	S8	S7	S6	S5	S4	S3	S2	S1

SSC: Sensor short-circuit
 SSUP: Sensor underpower diagnostic
 S1 to 8: Channel diagnostic 1 to 8

Diagnostic Indication 0930 CSL 113

LED	Indicator	Condition
1...8 A/B	Yellow	Channel status
2, 4, 6, 8 A/B	Red	Actuator short circuit
Us	Green	Sensor/actuator power supply active
Ul	Green	Module electronic supply active
OVL	Red	Sensor short circuit
MS (Module status)	Green	PDO transfer with PLC
	Green blinking	No data communication, no connection to PLC the error setting is given to the outputs
NS (Network status)	Red	Invalid module address e.g. "0"
	Green	Cyclic communication with PLC
	Green blinking	Searching for baudrate
	Red blinking	Warning bus connection
NS (Network status)	Red	Invalid bus connection
	Red/green blinking	No connection to PLC the error setting is given to the outputs
	Red fast blinking	Invalid module address e.g. "0"

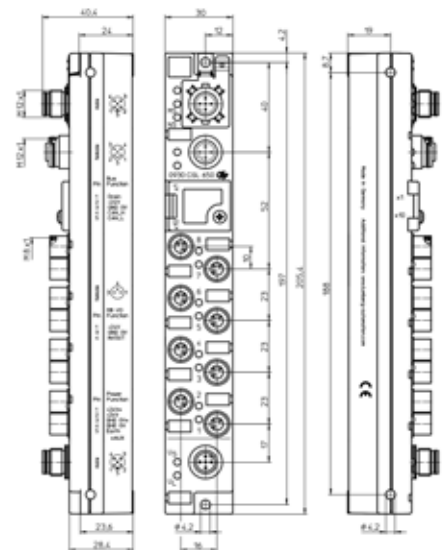
The diagnostic message of the fieldbus is made at the CANopen™ modules of Lumberg Automation via an additional input byte, which is appended to the standard input process data. Depending on the module, the diagnosis is communicated module- or port-related. It is generated if its an overload, an actuator low voltage and an actuator short-circuit. In addition, corresponding LEDs simplify troubleshooting.



0930 CSL 113

Diagnostic Indication 0930 CSL 650

LED	Indicator	Condition
1...8	Yellow	Channel status
	Red	Periphery error
Us	Green	Sensor power supply active
Ul	Green	Actuator power supply
MS (Module status)	Green	Device is ready for operating
	Green blinking	1 Hz CANopen® pre-operational, 2 Hz CANopen® STOP
	Red blinking	Recoverable fault, e.g. diagnostic
	Red/green blinking	CAN Reset
NS (Network status)	Green	Online, communication with PLC
	Green blinking	2 Hz searching for baudrate
	Red/green blinking	1 Hz wrong configuration, e.g. cable length is oversized
	Red blinking	Time-out state of one or more I/O connections
	Red	Failed communication device, Bus-off status, duplicate MAC-ID



0930 CSL 650

Pin Assignment 0930 CSL 113

Bus Connection M12	Actuator Supply 7/8"	In-/Outputs M12
<p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	<p>1 = Earth 2 = +24 V 3 = GND</p>	<p>IN 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth</p> <p>OUT 1 = n.c. 2 = OUT B 3 = GND (0 V) 4 = OUT A 5 = Earth</p>

1 = System/sensors

Pin Assignment 0930 CSL 650

Bus Connection M12	Actuator Supply M12	In-/Outputs M8
<p>1 = Drain 2 = +24 V¹ 3 = GND (0 V)¹ 4 = CAN_H 5 = CAN_L</p>	<p>1 = +24 V² 2 = +24 V³ 3 = GND (0 V)² 4 = GND (0 V)³ 5 = Earth</p>	<p>1 = +24 V 3 = GND (0 V) 4 = IN/OUT</p>
<p>Housing = Earth</p>		

1 = System: galvanically separated to sensors/actuators • 2 = Actuators • 3 = Sensors



The application of these products in harsh environments should always be checked before use. Technical modifications reserved.



I/O Modules Active – Stand-Alone: Interbus®



Be certain. Belden.

Interbus® – a Fieldbus System

Interbus® is an internationally used fieldbus system. Since the first presentation of the system in 1987 the Interbus® has been modified, updated and improved and has become integral in numerous applications in the area of Automation Technology.

Lumberg Automation Products

To ensure the best application of the Interbus® in the decentralized sector, components must meet maximum electromechanical

demands. The Lumberg Automation Interbus® components offer maximum protection for the electronic system due to the material used for the housing and the potting technology. The connection for Interbus® and the power supply of the module electronics, sensors as well as actuator system is implemented via M23 connectors. Bus terminals or TAPs are available for the connection to the bus.



Absolute protection
of electronics, thanks
to use of high-quality
components.

General Technical Data

Transmission medium

- Shielded twisted pair copper cable for differential signal transmission acc. to RS422 (RS485)
- Hybrid cable for the joint transmission of power supply and data with the installation remote bus

Network topology

Physically, Interbus® is configured as a ring. Due to special cabling systems (e.g. transmit and return lines in one cable, special T-splitters) it resembles a tree structure.

Partial systems in the Interbus®

- The Remote Bus (RBUS) has been designed for long distances. It connects the master with the first bus terminal and general remote bus participants with each other. A drop line from the remote bus is permitted and called a remote bus drop.
- The Installation Remote Bus is a variant of the remote bus. Apart from actual data cordsets the power supply for the module electronics and sensors is conducted in the Installation Remote Bus Cable.
- A Local Bus (LBUS) is a bus connection branching from the remote bus via a bus terminal and connecting the local bus participants with each other. Different variants of the local bus exist.

Number of devices

- Maximum 254 remote bus participants
- Total of 512 participants with max. 4096 I/O points

Configuration of devices

Projectioning does not require module-specific data, because the basic data are saved in the module. The relevant libraries can be used for a detailed or offline projectioning. The libraries for the Lumberg Automation modules can be downloaded from www.lumberg-automation.com/downloads.



Admissible transmission rates and line lengths

- Transmission rate: 500 kBit/s
- Overall remote bus length: 12.8 km
- Maximum distance between remote bus participants: 400 m
- Length of the installation remote bus: 50 m
- Distance between installation remote bus participants: 50 m
- Admissible current load of the installation remote bus: 4.5 A




Addressing

Modules are addressed automatically during the start-up of the bus depending on the physical position of the participants in the bus.



Interbus® – Digital Inputs






Technical Information

Product Description			
Type	0950 ISL 205	0950 ISL 202	0950 ISL 204
			
Description	LioN-Classic Interbus® device, remote bus terminal with integrated branch for an installation remote bus, 8 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, M23 bus connection, 9-poles, M23 power supply, 6-poles	LioN-Classic Interbus® device, installation remote bus with 8 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, M23 bus connection, 9-poles	LioN-Classic Interbus® device, installation remote bus with 16 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, 5-poles, M23 bus connection, 9-poles
Order No.	10992	10989	10991
Technical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Ambient Temperature	0 °C to +60 °C		
Weight	580 g	500 g	
Bus System			
ID Number	11 dec	10 dec	02 dec
System/Sensors Power Supply			
Rated Voltage	24 V DC		
Voltage Range	19 to 30 V DC		
Power Consumption	typ. 120 mA		
Input Power Supply			
Voltage Range	min. (UL – 1.5 V)		
Sensor Current	max. 800 mA		
Indicator	LED green		
Inputs (Type 2 acc. to IEC 61131-2)			
Number of Digital Channels	16		
Rated Voltage	24 V DC		
Channel Type N.O.	p-switching		
Status Indicator	LED yellow per channel		
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	10 pieces		

Diagnostic Indication

LED	Indicator	Condition
1...8	Yellow	Channel status
1...8 A/B (only 0950 ISL 204)	Yellow	Channel status
ERR (only 0950 ISL 205)	Red	Installation remote bus defective
Us (only 0950 ISL 202/204)	Green	Sensor supply active
UL	Green	Module electronic supply active
BA	Green	Bus active
RC	Green	Remote bus-in connected
RD	Red	Continuing remote bus disconnected
LD (only 0950 ISL 205)	Red	Installation field bus disconnected
OVL	Red	Sensor short circuit/sensor overload




Pin Assignment 0950 ISL 205

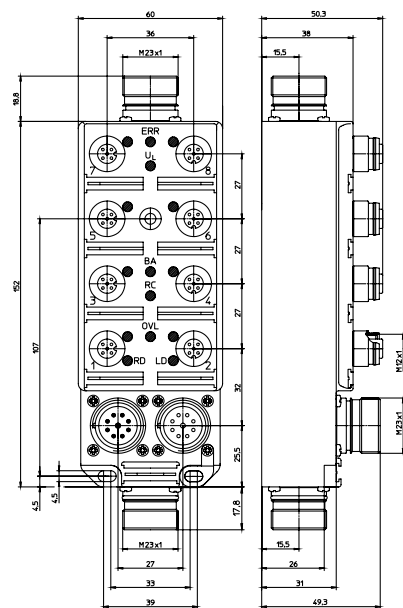
Bus Connection Input M23	Bus Connection Output M23	Inst. Remote Bus Output M23
 <ul style="list-style-type: none"> 1 = DO 2 = DO 3 = DI 4 = DI 5 = COM 6 = n.c. 7 = n.c. 8 = n.c. 9 = n.c. <p>Housing = Earth</p>	 <ul style="list-style-type: none"> 1 = DO 2 = DO 3 = DI 4 = DI 5 = COM 6 = n.c. 7 = n.c. 8 = n.c. 9 = LBST <p>Housing = Earth</p>	 <ul style="list-style-type: none"> 1 = DO 2 = DO 3 = DI 4 = DI 5 = COM 6 = Earth 7 = +24 V 8 = GND (0 V) 9 = RBST <p>Housing = Earth</p>
Power Supply M23	Input M12	
 <ul style="list-style-type: none"> 1 = Earth 2 = +24 V¹ 3 = GND (0 V)¹ 4 = +24 V² 5 = GND (0 V)² 6 = n.c. 	 <ul style="list-style-type: none"> 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 5 = Earth 	

1 = Installation remote bus • 2 = Module supply/sensors

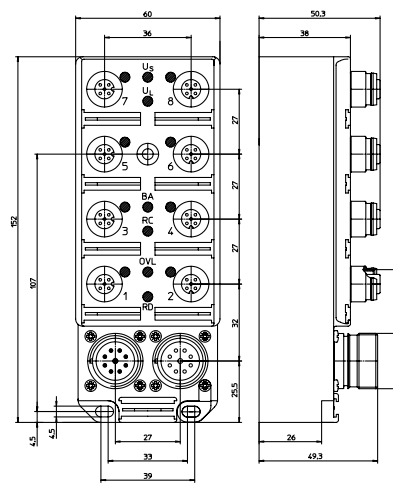


Pin Assignment 0950 ISL 202/204

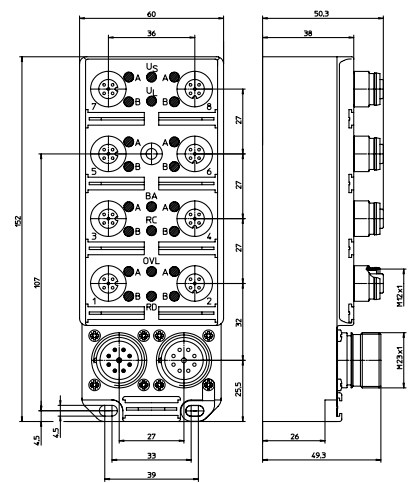
Bus Connection Input M23	Bus Connection Output M23	Input M12	0950 ISL 202	0950 ISL 204
 <ul style="list-style-type: none"> 1 = DO 2 = DO 3 = DI 4 = DI 5 = COM 6 = Earth 7 = +24 V 8 = GND (0 V) 9 = n.c. <p>Housing = Earth</p>	 <ul style="list-style-type: none"> 1 = DO 2 = DO 3 = DI 4 = DI 5 = COM 6 = Earth 7 = +24 V 8 = GND (0 V) 9 = RBST <p>Housing = Earth</p>		<ul style="list-style-type: none"> 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 5 = Earth 	<ul style="list-style-type: none"> 1 = +24 V 2 = IN B 3 = GND (0 V) 4 = IN A 5 = Earth



0950 ISL 205







0950 ISL 202



0950 ISL 204

Interbus® – Digital Outputs

Technical Information





Product Description		
Type	0950 ISL 201	0950 ISL 207
	 	 
Description	LioN-Classic Interbus® device, installation remote bus with 8 digital outputs to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, M23 bus connection, 9-poles, M23 power supply, 6-poles	LioN-Classic Interbus® device, installation remote bus with 8 digital outputs (2 A) to connect standard actuators, without actuator low voltage report, combined FIXCON®/M12 socket, 5-poles, M23 bus connection, 9-poles, M23 power supply, 6-poles
Order No.	10988	25110
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	580 g	
Bus System		
ID Number	09 dec	01 dec
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	typ. 70 mA	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Indicator	LED green	
Outputs (Type 2 A acc. to IEC 61131-2)		
Number of Digital Channels	8	
Rated Output Current	2 A per channel	
Short Circuit-proof	yes	
Max. Current Carrying Capacity	15 A per module	
Channel Type N.O.	p-switching	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Diagnostic Indication

LED	Indicator	Condition
1...8 A	Yellow	Channel status
1...8	Red	Actuator short-circuit/actuator overload
Us	Green	Actuator supply active
U _L	Green	Module electronic supply active
BA	Green	Bus active
RC	Green	Remote bus-in connected
RD	Red	Continuing remote bus disconnected

Interbus® – Digital In- and Outputs





Technical Information

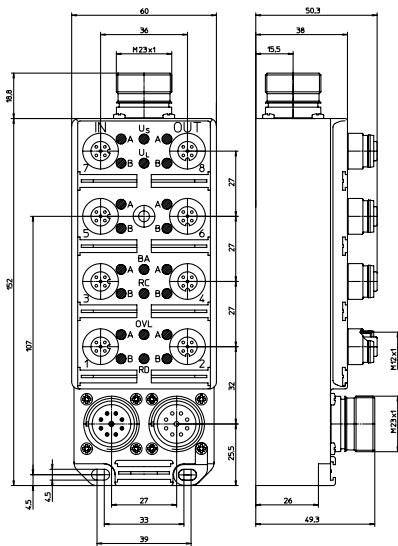
Product Description		
Type	0950 ISL 203	0950 ISL 209
	 	 
Description	LioN-Classic Interbus® device, installation remote bus with 8 digital inputs to connect standard sensors and 4 digital outputs (2 A) to connect standard actuators, combined FIXCON®/M12 socket, 5-poles, M23 bus connection, 9-poles, M23 power supply, 6-poles, with potential separation	LioN-Classic Interbus® device, installation remote bus with 8 digital inputs to connect standard sensors and 4 digital outputs (2 A) to connect standard actuators, without actuator low voltage report, combined FIXCON®/M12 socket, 5-poles, M23 bus connection, 9-poles, M23 power supply, 6-poles
Order No.	10990	50201
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	0 °C to +60 °C	
Weight	580 g	
Bus System		
ID Number	35 dec	03 dec
System/Sensors Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Power Consumption	typ. 80 mA	
Input Power Supply		
Voltage Range	min. (UL – 1.5 V)	
Sensor Current	max. 800 mA	
Indicator	LED green	
Inputs		
Number of Digital Channels	8	
Rated Voltage	24 V DC	
Channel Type N.O.	p-switching	
Status Indicator	LED yellow per channel	
Output Power Supply		
Rated Voltage	24 V DC	
Voltage Range	19 to 30 V DC	
Indicator	LED green	
Outputs (Type 0.5 A acc. to IEC 61131-2)		
Number of Digital Channels	4	
Rated Output Current	2 A per channel	
Short Circuit-proof	yes	
Max. Current Carrying Capacity	4 A per module	
Channel Type N.O.	p-switching	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Diagnostic Indication

LED	Indicator	Condition
1, 3, 5, 7 A/B	Yellow	Channel status
2, 4, 6, 8 A	Yellow	Channel status
2, 4, 6, 8	Red	Actuator short-circuit/actuator overload
Us	Green	Actuator supply active
UL	Green	Module electronic supply active
BA	Green	Bus active
RC	Green	Remote bus-in connected
RD	Red	Continuing remote bus disconnected
OVL	Red	Sensor short circuit/sensor overload

Pin Assignment

Bus Connection Input M23		Bus Connection Output M23													
	1 = DO 2 = DO 3 = DI 4 = DI 5 = COM 6 = Earth 7 = +24 V 8 = GND (0 V) 9 = n.c.		1 = DO 2 = DO 3 = DI 4 = DI 5 = COM 6 = Earth 7 = +24 V 8 = GND (0 V) 9 = RBST												
Housing = Earth		Housing = Earth													
Power Supply M23		In-/Output M12													
	1 = Earth 2 = +24 V 3 = GND (0 V) 4 = n.c. 5 = n.c. 6 = n.c.		<table border="0"> <tr> <td>IN</td> <td>OUT</td> </tr> <tr> <td>1 = +24 V</td> <td>1 = n.c.</td> </tr> <tr> <td>2 = IN B</td> <td>2 = n.c.</td> </tr> <tr> <td>3 = GND (0 V)</td> <td>3 = GND (0 V)</td> </tr> <tr> <td>4 = IN A</td> <td>4 = OUT</td> </tr> <tr> <td>5 = Earth</td> <td>5 = Earth</td> </tr> </table>	IN	OUT	1 = +24 V	1 = n.c.	2 = IN B	2 = n.c.	3 = GND (0 V)	3 = GND (0 V)	4 = IN A	4 = OUT	5 = Earth	5 = Earth
IN	OUT														
1 = +24 V	1 = n.c.														
2 = IN B	2 = n.c.														
3 = GND (0 V)	3 = GND (0 V)														
4 = IN A	4 = OUT														
5 = Earth	5 = Earth														



0950 ISL 203 | 0950 ISL 209



I/O Modules Active – Stand-Alone: AS-Interface



Be certain. Belden.

Actuator Sensor-Interface (AS-Interface)

AS-Interface was designed as a simple system for the quick data exchange of binary signals. An international standard since 1999, in accordance with EN 50295 and IEC 62026-2.

Quick and Uncomplicated

The biggest advantage of AS-Interface is the quick and uncomplicated installation of the system. Communication (Manchester Encoding)

and power are transmitted via a 2-wire cable. By using piercing technology for contacting to the cable it is possible to insert a new slave at any point in the system. In addition, the arbitrary structure of the bus (line, tree, star, ...) permits the perfect adaptation to the plant or machine. AS-Interface is mainly used for small machines, as a subsystem for more complex bus systems (e.g. PROFIBUS-DP) or as an easy introduction to bus technology.



Cost-efficient and innovative components for demanding actuator/sensor networks.

General Technical Data

Transmission medium

- Unshielded 2-wire cable for power supply (module electronics and sensors) and data transmission (Manchester Encoding)
- Optional mechanically encoded flat or round cable

Network topology

The bus can be built arbitrarily (line, star, tree, ...). Terminating resistors are not required.

Number of devices

- 31 slaves by using standard slaves
- 62 slaves by using A/B slaves with profile 3.0

Configuration of devices

No module-specific data is required for configuration, since the basic data is contained in the module. Appropriate libraries can be used for detailed or offline configuration. The libraries for Lumberg Automation modules can be downloaded from www.lumberg-automation.com/downloads.

Reliable transmission rates and segment lengths

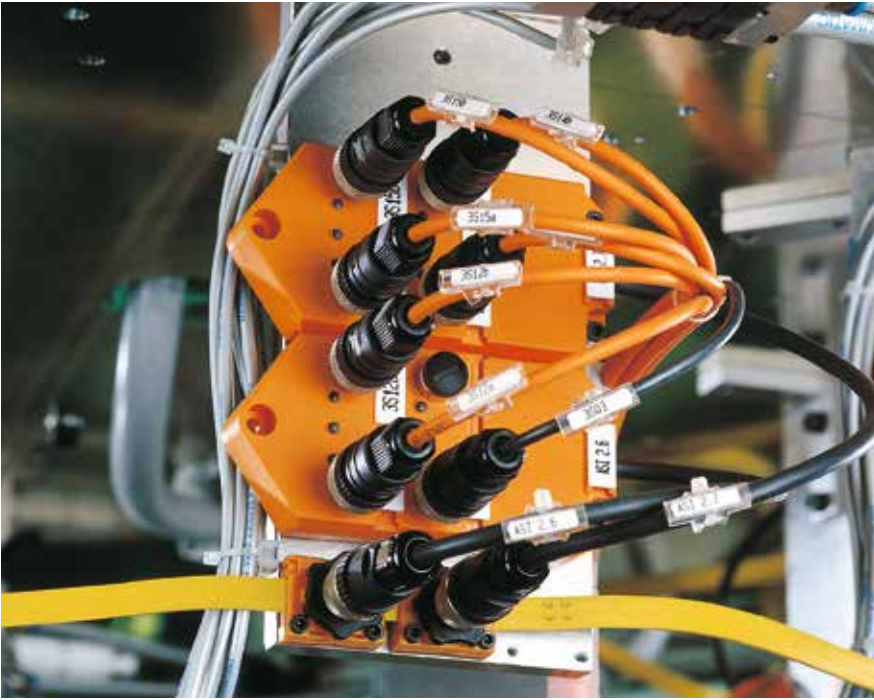
- Transmission rate: 167 kBaud
- Max. segment length: 100 m

Addressing

AS-Interface slaves are generally addressed via software (the default address is generally "0" for all AS-Interface slaves).











This can be done in several ways:

- Via the master: The slaves are connected to the master consecutively. The latter automatically identifies the kind of slave and builds up a communication. Then the slave can be addressed.
- Via an addressing unit: All AS-Interface slaves can be addressed with the standard addressing unit "0913 ATL 003".
- Automatic addressing: If a slave in a network fails, AS-Interface offers the chance of auto-addressing. The defective slave is replaced by an identical one. The master identifies this slave and automatically addresses it to the address of the missing slave.



AS-Interface – Digital Inputs

Technical Information

Product Description		
Type	0910 ASL 409	0910 ASL 412
	    	    
Description	LioN-Classic AS-Interface flat cable module with 4 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, infrared interface for the addressing	LioN-Classic AS-Interface flat cable module with 8 digital inputs to connect standard sensors, combined FIXCON®/M12 socket, infrared interface for the addressing
Note	The input channels are connected together. That allows a greater connection flexibility (see pin assignment). In case of connection of a two-channel sensor to input socket 1 or 3 a further sensor must not be plugged to input socket 2 or 4 respectively due to the Y wiring of the inputs.	
Order No.	26823	44429
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-25 °C to +60 °C	-25 °C to +80 °C
Weight	180 g	300 g
Bus System		
AS-Interface Profile	S.O.A.E	
Support A/B Addressing	yes	
System/Sensors Power Supply		
Rated Voltage	AS-Interface net	
Voltage Range	26.5 to 31.6 V DC	
Power Consumption	max. 120 mA	
Input Power Supply		
Voltage Range	AS-Interface net 17 to 30 V DC	
Sensor Current	max. 100 mA	
Indicator	LED green	
Inputs (Type 2 acc. to IEC 61131-2)		
Number of Digital Channels	4	8
Rated Voltage	24 V DC	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

Bit Assignment 0910 ASL 409

Bit	-	-	-	-	3	2	1	0
M12 Input								
Byte 0	-	-	-	-	I-4	I-3/4	I-2	I-1/2

Bit Assignment 0910 ASL 412

Bit	-	-	-	-	3	2	1	0
M12 Input								
Byte 0/Slave 1	-	-	-	-	I-4	I-3	I-2	I-1
Byte 1/Slave 2	-	-	-	-	I-4	I-3	I-2	I-1

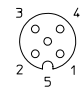
According to the AS-Interface specification 3.0, periphery errors like short circuits or overloads can be sent to the master in the form of a collective diagnosis. In addition, there is a status LED on the relevant slave.

Diagnostic Indication

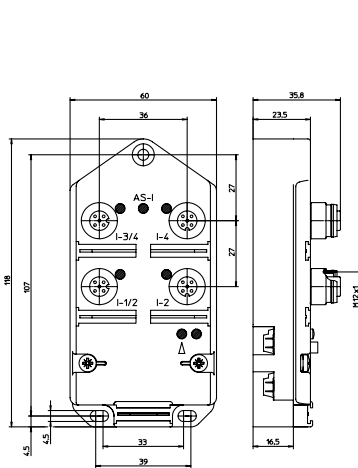
LED	Indicator	Condition
I-1...4	Yellow	Channel status
U-AS-i	Green	AS-Interface power supply active
FID	Red Red blinking	Communication error Periphery error (sensor/actuator short circuit)

Pin Assignment

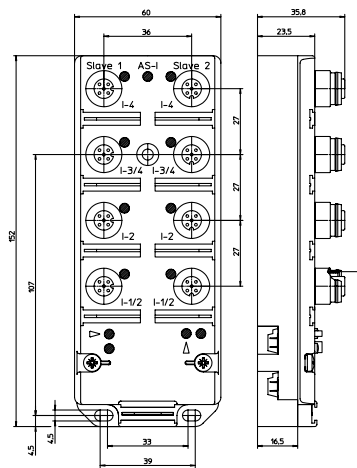
Input M12

	Input 1	Input 2	Input 3	Input 4
	1 = +24 V 2 = IN 2 3 = GND (0 V) 4 = IN 1 5 = Earth	1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 2 5 = Earth	1 = +24 V 2 = IN 4 3 = GND (0 V) 4 = IN 3 5 = Earth	1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 3 5 = Earth

The connection to earth for the inputs is implemented via the earthing contacts at the fastening holes.



0910 ASL 409








0910 ASL 412



AS-Interface – Digital Outputs

Technical Information

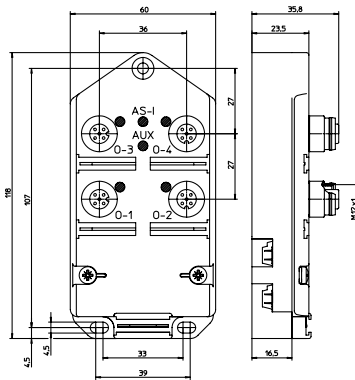
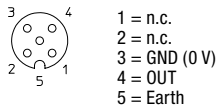
Product Description	
Type	0910 ASL 403
	    
Description	LioN-Classic AS-Interface flat cable module with 4 digital outputs (p-switching) to connect standard actuators, 4 x M12 socket
Order No.	10919
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-25 °C to +80 °C
Weight	295 g
Bus System	
AS-Interface Profile	8.0
Support A/B Addressing	no
System/Sensors Power Supply	
Rated Voltage	AS-Interface net
Voltage Range	26.5 to 31.6 V DC
Power Consumption	max. 75 mA
Output Power Supply (AUX)	
Rated Voltage	24 V DC
Voltage Range	10 to 30 V DC
Reverse Polarity Protection	yes
Indicator	LED green
Outputs (Type 2 A acc. to IEC 61131-2)	
Number of Digital Channels	4
Rated Output Current	2 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	4 A per module
Status Indicator	LED yellow per channel
Included in Delivery	
M12 Dust Covers	2 pieces
Attachable Labels	10 pieces

Bit Assignment

Bit	-	-	-	-	3	2	1	0
	M12 Output							
Byte 0	-	-	-	-	0-4	0-3	0-2	0-1

Diagnostic Indication

LED	Indicator	Condition
O-1...4	Yellow	Channel status
U-AS-i	Green	AS-Interface power supply active
AUX	Green	Actuator supply active




Pin Assignment**Output M12**

0910 ASL 403



AS-Interface – Digital In- and Outputs

Technical Information

Product Description			
Type	0910 ASL 410	0910 ASL 408	0910 ASL 438
			
Description	LioN-Classic AS-Interface flat cable module with 2 digital inputs to connect standard sensors and 2 digital outputs to connect standard actuators, combined FIXCON®/M12 socket, infrared interface for the addressing	LioN-Classic AS-Interface flat cable module with 4 digital inputs to connect standard sensors and 4 digital outputs to connect standard actuators, combined FIXCON®/M12 socket, infrared interface for the addressing	LioN-Classic AS-Interface flat cable module with 4 digital inputs for 2-wire or 3-wire sensors and 4 digital outputs to connect standard actuators, M12 socket, infrared interface for the addressing
Note	The input channels have interconnected signal pairs. That allows a greater connection flexibility (see pin assignment). In case of connection of a two-channel sensor to input socket 1 a further sensor must not be plugged to input socket 2 respectively due to the Y wiring of the inputs.	The input channels have interconnected signal pairs. That allows a greater connection flexibility (see pin assignment). In case of connection of a two-channel sensor to input socket 1 or 3 a further sensor must not be plugged to input socket 2 or 4 respectively due to the Y wiring of the inputs.	This module corresponds to the AS-i specification 3.0 and can only be operated on a master server, which is also 3.0. The input/output channels have interconnected signal pairs. That allows a greater connection flexibility (see pin assignment). In case of connection of a two-channel sensor/actuator to input/output socket 1 or 3 a further sensor/actuator must not be plugged to input/output socket 2 or 4 respectively due to the Y wiring of the inputs/outputs.
Order No.	26821	26819	107971
Technical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Ambient Temperature	-25 °C to +80 °C		
Weight	200 g		300 g
Bus System			
AS-Interface Profile	S -3.F. E	S-.F.E	S-7.A.7
Support A/B Addressing	no		yes
System/Sensors Power Supply			
Rated Voltage	AS-Interface net		
Voltage Range	26.5 to 31.6 V DC		
Power Consumption	max. 250 mA		
Input Power Supply			
Voltage Range	17 to 30 V DC		
Sensor Current	200 mA		
Indicator	LED green		
Inputs (Type 2 acc. to IEC 61131-2)			
Number of Digital Channels	4		
Rated Input Current	200 mA		
Status Indicator	LED green per channel		
Output Power Supply (AUX)			
Rated Voltage	24 V DC		
Voltage Range	10 to 30 V DC		
Reverse Polarity Protection	yes		
Indicator	LED green		
Outputs (Type 2 A acc. to IEC 61131-2)			
Number of Digital Channels	4		
Rated Output Current	2 A per channel		
Short Circuit-proof	yes		
Max. Current Carrying Capacity	4 A per module		
Status Indicator	LED yellow per channel		
Diagnostic Indicator	LED red		
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	10 pieces		

Bit Assignment 0910 ASL 408

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	-	-	-	-	1-4	1-3/4	1-2	1-1/2
M12 Output								
Byte 0	-	-	-	-	O-4	O-3	O-2	O-1

Bit Assignment 0910 ASL 410

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	-	-	-	-	-	-	1-2	1-1/2
M12 Output								
Byte 0	-	-	-	-	O-4	O-3	-	-

Bit Assignment 0910 ASL 438


Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	-	-	-	-	1-4	1-3/4	1-2	1-1/2
M12 Output								
Byte 0	-	-	-	-	O-4	O-3/4	O-2	O-1/2

Diagnostic Indication


LED	Indicator	Condition
I-1..2/O-3..4 (only 0910 ASL 410)	Yellow	Channel status
I-1..4/O-1..4 (only 0910 ASL 408/438)	Yellow	Channel status
U-AS-i	Green	AS-Interface power supply active
AUX	Green	Actuator supply active
FID	Red	Communication error
	Red blinking	Periphery error (sensor/actuator short circuit)

Periphery errors like short circuits or overloads can be sent to the master in the form of a collective diagnosis. In addition, there is a status LED on the relevant slave.




Pin Assignment 0910 ASL 410

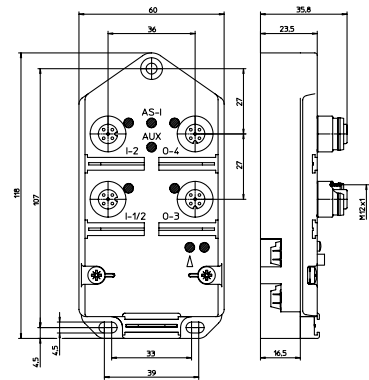
Input M12		Output M12	
	Input 1 1 = +24 V 2 = IN 2 3 = GND (0 V) 4 = IN 1 5 = Earth	Input 2 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 2 5 = Earth	Output 1 1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 3 5 = Earth

Pin Assignment 0910 ASL 408

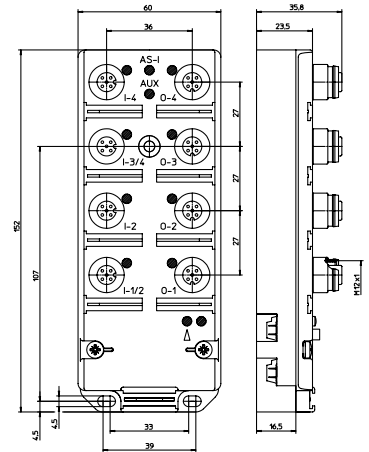
Input M12		Output M12			
	Input 1 1 = +24 V 2 = IN 2 3 = GND (0 V) 4 = IN 1 5 = Earth	Input 2 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 2 5 = Earth	Input 3 1 = +24 V 2 = IN 4 3 = GND (0 V) 4 = IN 3 5 = Earth	Input 4 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 4 5 = Earth	Output 1 1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 1 5 = Earth

Pin Assignment 0910 ASL 438

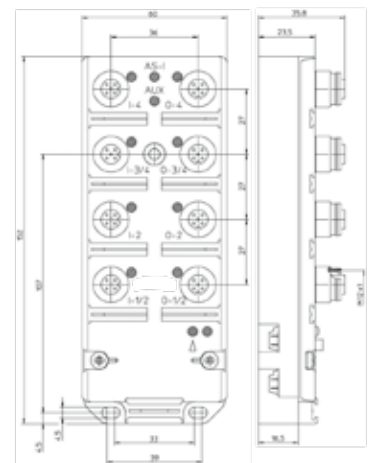
AUX	Input M12				Output M12			
 1 = AS-Interface + 2 = Auxiliary power - 3 = AS-Interface - 4 = Auxiliary power + 5 = n.c.	 Input 1 1 = +24 V 2 = IN 2 3 = GND (0 V) 4 = IN 1 5 = Earth	Input 2 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 2 5 = Earth	Input 3 1 = +24 V 2 = IN 4 3 = GND (0 V) 4 = IN 3 5 = Earth	Input 4 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 4 5 = Earth	 Output 1 1 = n.c. 2 = OUT 2 3 = GND (0 V) 4 = OUT 1 5 = Earth	Output 2 1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 2 5 = Earth	Output 3 1 = n.c. 2 = OUT 4 3 = GND (0 V) 4 = OUT 3 5 = Earth	Output 4 1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 4 5 = Earth



0910 ASL 410









0910 ASL 408



0910 ASL 438

AS-Interface – Digital In- and Outputs

Technical Information

Product Description					
Type	<table border="1"> <tr> <td>0910 ASL 146</td> <td>0910 ASL 425</td> </tr> <tr> <td></td> <td></td> </tr> </table>	0910 ASL 146	0910 ASL 425		
0910 ASL 146	0910 ASL 425				
					
Description	<table border="1"> <tr> <td>LioN-Classic AS-Interface flat cable module with M12 bus connection and 4 digital inputs for 2-wire or 3-wire sensors and 4 digital outputs to connect standard actuators, M12 socket</td> <td>LioN-Classic AS-Interface module with housing and receptacle shells in stainless steel, 4 digital inputs to connect standard sensors and 4 digital outputs (2 A) to connect standard actuators, M12 bus connection</td> </tr> </table>	LioN-Classic AS-Interface flat cable module with M12 bus connection and 4 digital inputs for 2-wire or 3-wire sensors and 4 digital outputs to connect standard actuators, M12 socket	LioN-Classic AS-Interface module with housing and receptacle shells in stainless steel, 4 digital inputs to connect standard sensors and 4 digital outputs (2 A) to connect standard actuators, M12 bus connection		
LioN-Classic AS-Interface flat cable module with M12 bus connection and 4 digital inputs for 2-wire or 3-wire sensors and 4 digital outputs to connect standard actuators, M12 socket	LioN-Classic AS-Interface module with housing and receptacle shells in stainless steel, 4 digital inputs to connect standard sensors and 4 digital outputs (2 A) to connect standard actuators, M12 bus connection				
Note	<table border="1"> <tr> <td>This module corresponds to the AS-i specification 3.0 and can only be operated on a master server, which is also 3.0. The input/output channels have interconnected signal pairs. That allows a greater connection flexibility (see pin assignment). In case of connection of a two-channel sensor/actuator to input/output socket 1 or 3 a further sensor/actuator must not be plugged to input/output socket 2 or 4 respectively due to the Y wiring of the inputs/outputs.</td> <td>Especially designed for food and beverage equipment.</td> </tr> </table>	This module corresponds to the AS-i specification 3.0 and can only be operated on a master server, which is also 3.0. The input/output channels have interconnected signal pairs. That allows a greater connection flexibility (see pin assignment). In case of connection of a two-channel sensor/actuator to input/output socket 1 or 3 a further sensor/actuator must not be plugged to input/output socket 2 or 4 respectively due to the Y wiring of the inputs/outputs.	Especially designed for food and beverage equipment.		
This module corresponds to the AS-i specification 3.0 and can only be operated on a master server, which is also 3.0. The input/output channels have interconnected signal pairs. That allows a greater connection flexibility (see pin assignment). In case of connection of a two-channel sensor/actuator to input/output socket 1 or 3 a further sensor/actuator must not be plugged to input/output socket 2 or 4 respectively due to the Y wiring of the inputs/outputs.	Especially designed for food and beverage equipment.				
Order No.	<table border="1"> <tr> <td>107972</td> <td>52858</td> </tr> </table>	107972	52858		
107972	52858				
Technical Data					
Degree of Protection	IP67 (only when mated to associated counterparts)				
Ambient Temperature	-25 °C to +80 °C				
Weight	<table border="1"> <tr> <td>300 g</td> <td>550 g</td> </tr> </table>	300 g	550 g		
300 g	550 g				
Bus System					
AS-Interface Profile	S-7.A.7				
Support A/B Addressing	yes				
System/Sensors Power Supply					
Rated Voltage	AS-Interface net				
Voltage Range	26.5 to 31.6 V DC				
Power Consumption	max. 250 mA				
Input Power Supply					
Voltage Range	17 to 30 V DC				
Sensor Current	200 mA				
Indicator	LED green				
Inputs (Type 2 acc. to IEC 61131-2)					
Number of Digital Channels	4				
Rated Voltage	24 V DC				
Channel Type N.O.	p-switching				
Status Indicator	LED green per channel				
Output Power Supply (AUX)					
Rated Voltage	24 V DC				
Voltage Range	10 to 30 V DC				
Reverse Polarity Protection	yes				
Indicator	LED green				
Outputs (Type 2 A acc. to IEC 61131-2)					
Number of Digital Channels	4				
Rated Output Current	2 A per channel				
Short Circuit-proof	yes				
Max. Current Carrying Capacity	4 A per module				
Status Indicator	LED yellow per channel				
Diagnostic Indicator	LED red				
Included in Delivery					
M12 Dust Covers	2 pieces				
Attachable Labels	10 pieces				

Bit Assignment 0910 ASL 146

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	-	-	-	-	1-4	1-3/4	1-2	1-1/2
M12 Output								
Byte 0	-	-	-	-	0-4	0-3/4	0-2	0-1/2

Bit Assignment 0910 ASL 425

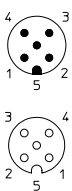

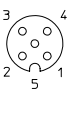
Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	-	-	-	-	3	2	1	0
M12 Output								
Byte 0	-	-	-	-	0-4	0-3	0-2	0-1

Diagnostic Indication

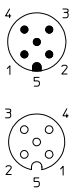
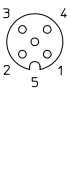
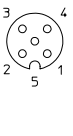
LED	Indicator	Condition
I-1..4/O-1..4	Yellow	Channel status
AS-i (only 0910 ASL 425)	Green	AS-Interface power supply active
U-AS-i (only 0910 ASL 146)	Green	AS-Interface power supply active
AUX	Green	Actuator supply active
DIA (only 0910 ASL 425)	Red Red blinking	Communication error/address at 0 Periphery error (actuator short circuit/sensor supply error)
FID (only 0910 ASL 146)	Red Red blinking	Communication error Periphery error (sensor/actuator short circuit)

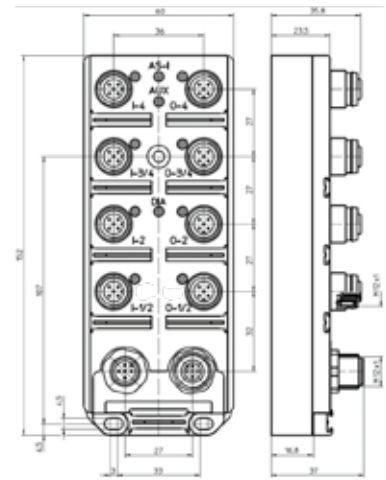
Periphery errors like short circuits or overloads can be sent to the master in the form of a collective diagnosis. In addition, there is a status LED on the relevant slave.

Pin Assignment 0910 AS 146

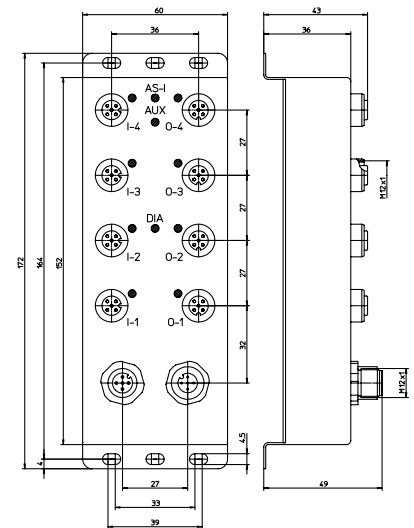
AUX	Input M12	Input 1	Input 2	Input 3	Input 4
 <p>1 = AS-Interface + 2 = Auxiliary power - 3 = AS-Interface - 4 = Auxiliary power + 5 = n.c.</p>		<p>1 = +24 V 2 = IN 2 3 = GND (0 V) 4 = IN 1 5 = Earth</p>	<p>1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 2 5 = Earth</p>	<p>1 = +24 V 2 = IN 4 3 = GND (0 V) 4 = IN 3 5 = Earth</p>	<p>1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 4 5 = Earth</p>
Output M12					
		<p>1 = n.c. 2 = OUT 2 3 = GND (0 V) 4 = OUT 1 5 = Earth</p>	<p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 2 5 = Earth</p>	<p>1 = n.c. 2 = OUT 4 3 = GND (0 V) 4 = OUT 3 5 = Earth</p>	<p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 4 5 = Earth</p>

Pin Assignment 0910 ASL 425

Bus Connection M12	Input M12	Input 1	Input 2	Input 3	Input 4
 <p>1 = AS-Interface + 2 = 0 V AUX 3 = AS-Interface - 4 = +24 V AUX 5 = Earth</p>		<p>1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 1 5 = Earth</p>	<p>1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 2 5 = Earth</p>	<p>1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 3 5 = Earth</p>	<p>1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = IN 4 5 = Earth</p>
Output M12					
		<p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 1 5 = Earth</p>	<p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 2 5 = Earth</p>	<p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 3 5 = Earth</p>	<p>1 = n.c. 2 = n.c. 3 = GND (0 V) 4 = OUT 4 5 = Earth</p>







0910 ASL 146





0910 ASL 425



AS-Interface – Passive Module**Technical Information**

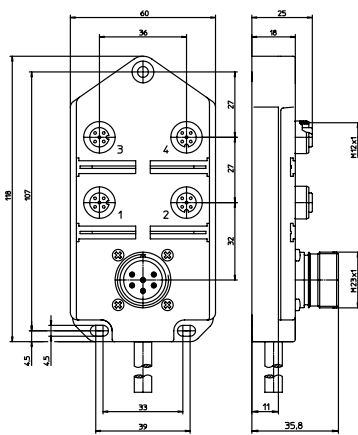
Product Description		
Type	0911 ANC 002	0911 ANC 403
	 	 
Description	4 way AS-interface-passive module with round cable for connection to 4 AS-interface modules or 4 AS-interface sensors/actuators or for dividing the AS interface signals to 4 M12 female connectors, M23 power supply connection	4 way AS-interface-passive module with standard flat cable for connection to 4 AS-interface modules or 4 AS-interface sensors/actuators or for dividing the AS interface signals to 4 M12 female connectors
Technical Data		
Ambient Temperature	-25 °C to +80 °C	
Housing Material	PUR	
Contact Insert	PA 6.6 GF	PA
Contact	CuZn, pre-nickel and gold-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	–	≤ 5 mΩ
Rated Voltage	26.5 to 31.6 V AC/DC (AS-Interface)	
Rated Current	4 A per outlet/4 A max. total	4 A max.
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	5 pieces	

Pin Assignment

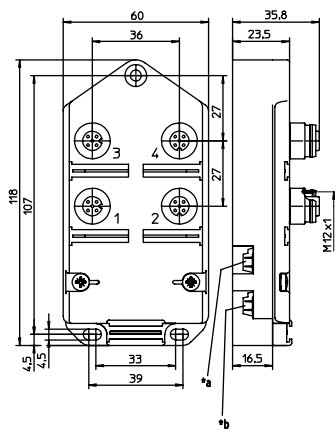
Power Supply M23	Input M12
 <ul style="list-style-type: none"> 1 = Erde 2 = +24 V 3 = GND (0 V) 4 = n.c. 5 = n.c. 6 = n.c. 	 <ul style="list-style-type: none"> 1 = AS-Interface + 2 = GND (0 V) 3 = AS-Interface - 4 = +24 V 5 = Earth

Ordering Designation

Order No.	Ordering Designation	Performance
10925	0911 ANC 002/5 M	4 way with AS-interface round cable (PUR/PVC Cable no 41)
11054	0911 ANC 002/10 M	4 way with AS-interface round cable (PUR/PVC Cable no. 41)
10929	0911 ANC 403	4 way with AS-interface Standard flat cable connection



0911 ANC 002







0911 ANC 403
 *a = AS-Interface Standard flat cable
 *b = Additional power supply



AS-Interface – Passive Branches

Technical Information

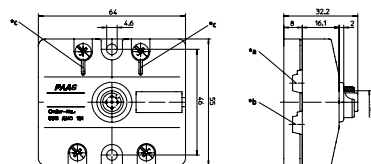
Product Description		
Type	0911 ANC 101	0911 ANC 401
	 	 
Description	Passive AS-Interface Branch for connecting AS-Interface slaves (actuators/sensors) via a M12 connector with an AS-Interface standard flat cable	Passive AS-Interface Branch for connecting two flat cables (opening of an AS-Interface branch or an additional power supply)
Note	Connect the Yellow AS-Interface flat cable into Line 1 Connect the auxiliary power cable (black) into Line 2	In this AS-Interface branch only two cables with the same functionality can be connected. That is either the Yellow or the black cable can be used
Order No.	10926	10927
Technical Data		
Ambient Temperature	-25 °C to +80 °C	
Housing Material	PA	
Contact Insert	PA	
Contact	CuZn, pre-nickelated and gold-plated (M12) CuZn, tin-plated (piercing contacts)	CuZn, tin-plated (piercing contacts)
Mechanical Data		
Degree of Protection	IP65 (only when mated to associated counterparts)	
Electrical Data		
Rated Current	4 A max.	8 A
Included in Delivery		
M12 Dust Covers	-	
Attachable Labels	-	

Pin Assignment

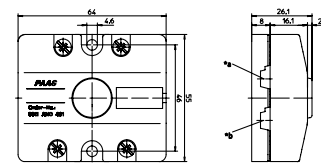
Input M12



- 1 = AS-Interface +
- 2 = GND (0 V)
- 3 = AS-Interface -
- 4 = +24 V
- 5 = Earth



0911 ANC 101
 *a = LINE 1: Standard flat cable
 *b = LINE 2: Additional power supply
 *c = Earthing spring contact



0911 ANC 401
 *a = LINE 1
 *b = LINE 2



I/O Modules Active – LioN-Link



Be certain. Belden.

Fieldbus Variable I/O Modules: LioN-Link

LioN-Link is a modular, decentralized IP67 system for field level applications. Based on a bus coupler, the I/O modules are distributed independently of the field bus and decentrally via two lines to the field. Up to 15 modules can be connected per line. A 100 m extension is possible in each case.

Bus couplers are available for PROFINET, EtherNet/IP, PROFIBUS, DeviceNet™ and CANopen® as well as digital I/O modules in 8 I/O universal or 16 I/O universal or 8 I and 16 I variants; there are also analog input modules as well as valve interface components. The digital input and output modules are equipped with universal I/O functionality, which allows the most varied configurations to be implemented as every signal pin can be used both as an input and an output – and without additional configuration.

The LioN-Link modules were developed for process-oriented use.

Thanks to an innovative technological development, the complete production process can be carried out without encapsulation, making LioN-Link modules ideal for use in the smallest handling robots due to their low weight.

All modules are vibration- and shock-proof as well as water-proof in accordance with IP67, which means they can be used in a process-oriented applications. The cordsets to the sensors and actuators can therefore also be shortened. Impermeability is guaranteed for a variety of coolants/lubricants. Critical or unfamiliar agents can be tested in our laboratory for compatibility.



EtherNet/IP™

DeviceNet™

CANopen®

Customized connectivity solutions for high flexibility on the field level.

The LioN-Link system offers a cost-optimized wiring solution, due to its field bus-independent I/O modules. The wiring of the LioN-Link modules is performed on the basis of standard wiring components such as CAN-/DeviceNet™ Thin Cables; no special cables such as fiber optic cables or M12 connectors with special plug-in arrangement (six-pole) are required. A terminating resistor is not required for connecting the last LioN-Link module in a line.

Use of standardized components allows a reduction in the variety of part types and simplifies global procurement.

LioN-Link provides a comprehensive portfolio of connection components at the field level. These include components for the control of electric drives, the networking of intelligent sensors and actuators (e.g., proximity switches, motor starters and valves) as well as straightforward retrofitting/conversion of machines.

General Information

Standard features:

- Bus-independent I/O modules ensure excellent flexibility and reduced storage costs
- Space-saving, light-weight module for a wide range of applications
- Simplified planning, due to universal I/O modules
- Cost-effective solution – up to 480 I/Os on one bus coupler
- Quick availability with the use of standardized wiring components
- Easy and safe installation, thanks to color-coded slots
- High degree of reliability, as there are no terminating resistors
- Easy startup and extension of the system, because the modules operate without manual intervention

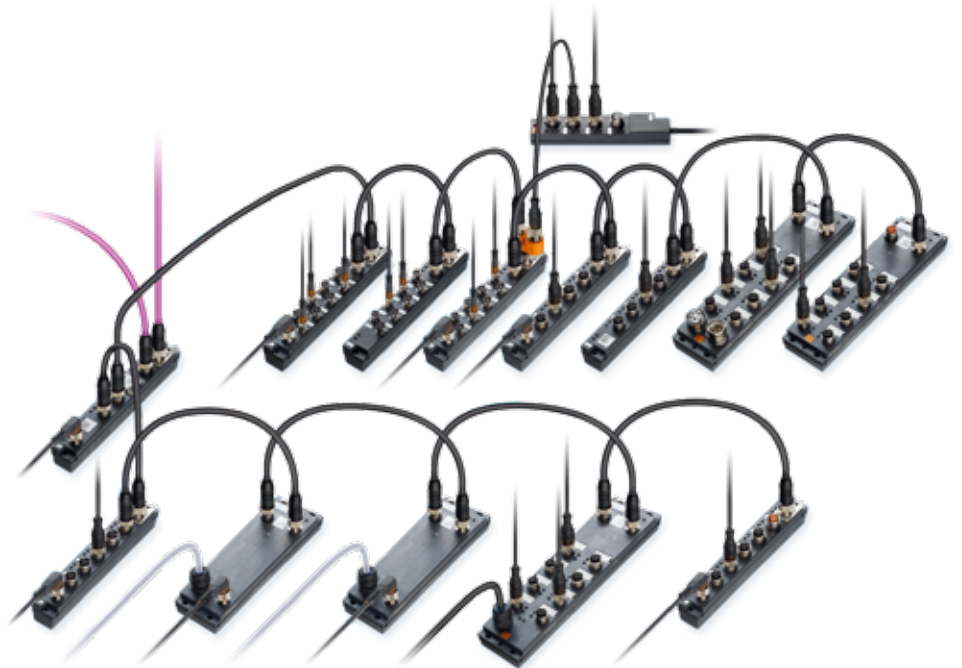


Customer Benefits

- Cost savings/profit increases
- Simple installation and maintenance: the time required is minimized, since the signals are bundled and transmitted via the field bus
- Flexibility: all standard field bus systems are supported
- Reliability: fail-safe modules with long service life (long-term stability)
- Competitive edge, owing to simple procurement of spare parts via world-wide sales network





Product Features

- Up to 15 devices per line, each with a 100 m extension
- Up to 30 I/O modules are possible on a bus coupler (480 signals)
- Analog and digital modules
- Variants for special applications (valve terminals, motor controllers, etc.)
- Field bus-independent I/O modules
- Additional network extension without repeater possible at maximum speed
- No terminating resistor needed



LioN-Link BusHead PROFINET Device Slave for the Connection Between the Higher Level Fieldbus and the Fieldbus Independent I/O Modules


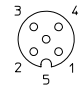
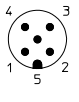
Technical Information

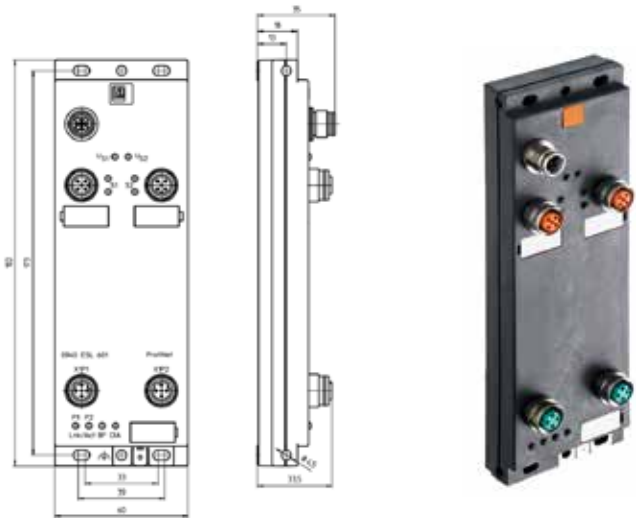
Product Description	
Type	0940 ESL 601
	   
Description	LioN-Link PROFINET BusHead, IP67 bus coupler module, M12 LioN-Link connection, 5-poles, M12 power supply connection, 5-poles, M12 LAN connection, 4-poles, D-coded, integrated 3-port switch, web server, IRT (Isochrone Real Time communication)
Note	BusHead for LioN-Link standard modules, Motion module "0942 UEM 783" and I/O-Link module "0942 UEM 620"
Order No.	105689
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	220 g
Bus System	
ID Number	VendorID: 0016A hex, DeviceID: 0302 hex
Transmission Rate	100 Mbit/s full duplex
System/Sensors Power Supply	
Rated Voltage	24 V AC/DC
Voltage Range	19 to 30 V AC/DC
Power Consumption	typ. 100 mA
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	6 pieces

Diagnostic Indication

LED	Indicator	Condition
I/Os1	Red Green	Wrong configuration/module exchanged Online, communication with PLC
I/Os2	Red Green Off	Wrong configuration/module exchanged Online, communication with PLC Branch not in use
Us1	Green	Sensor/system power supply Line 1
Us2	Green	Sensor/system power supply Line 2
LNK/ACT	Green Orange blinking	Connection to an Ethernet device I/O device exchanging data
BF	Red	No I/O controller or wrong LioN-Link configuration
DIA	Red	Common indicator for periphery errors

Pin Assignment





LAN Connection M12, D-coded	LiON-Link Connection M12	Power Supply M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p> <p>Housing = shielded</p>	 <p>1 = Drain 2 = 24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data -</p>	 <p>1 = +24 V 2 = +24 V 3 = 0 V 4 = 0 V 5 = Earth</p>



0940 ESL 601

LioN-Link Ethernet/IP BusHead-I/O-Device-Slave for Connections Between the Superior Fieldbus System and the Fieldbus Independent I/O Modules


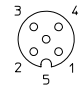
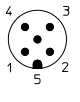
Technical Information

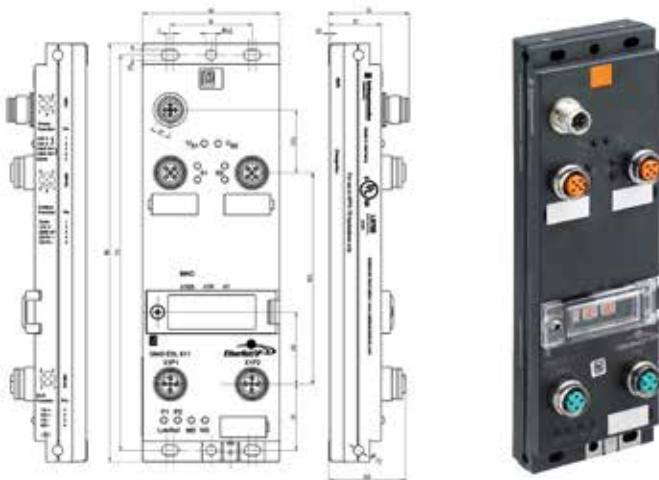
Product Description	
Type	0940 ESL 611
	   
Description	LioN-Link Ethernet/IP BusHead, IP67 bus coupler module, M12 LioN-Link connection, 5-poles, M12 power supply connection, 5-poles, M12 LAN connection, 4-poles, D-coded, integrated 3-port switch, web server
Note	Bus coupler for LioN-Link standard modules, motion module "0942 UEM 783" and I/O-Link module "0942 UEM 620"
Order No.	934815001
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	220 g
Bus System	
ID Number	Vendor ID: 21, Device ID: 0x07
Transmission Rate	100 MBit/s full duplex
System/Sensors Power Supply	
Rated Voltage	24 V AC/DC
Voltage Range	19.2 to 28.8 V AC/DC
Power Consumption	typ. 100 mA
Additional Technical Information	Operation indicator green LED, Function indicator red, green and yellow LED
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	6 pieces

Diagnostic Indication

LED	Indicator	Condition
P1 LNK/ACT	Green	Connection to an Ethernet device
P2 LNK/ACT	Yellow blinking	I/O device exchanging data
	Off	No connection to another device
MS (Module status)	Green	Device is ready for operating
	Green blinking	Wrong configuration
	Red blinking	Firmware update
	Red/green blinking	Self test is running
	Off	Branch not in use (module not connected)
NS (Network status)	Green	Connection with master IP-address exists
	Green blinking	IP Address exists but no connection with master
	Red	IP address is being used by another device
	Red blinking	Time-out state of one or more I/O connections
	Off	Branch not in use (module not connected)
S1	Green	Branch 1 active data exchange with I/O modules
	Red	Incorrect configuration or module permutation
	Red/green alternating blinking	Restart branch 1
S2	Green	Branch 2 active data exchange with I/O modules
	Red	Incorrect configuration or module permutation
	Red/green alternating blinking	Restart branch 2
Us1	Green	System/sensor power branch 1 available
	Off	System/sensor power branch 1 failed
Us2	Green	System/sensor power branch 2 available
	Off	System/sensor power branch 2 failed

Pin Assignment

LAN Connection M12, D-coded	LiON-Link Connection M12	Power Supply M12
 <p>1 = TD+ 2 = RD+ 3 = TD- 4 = RD-</p> <p>Housing = shielded</p>	 <p>1 = Drain 2 = 24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data -</p>	 <p>1 = +24 V 2 = +24 V 3 = 0 V 4 = 0 V 5 = Earth</p>



0940 ESL 611

LioN-Link BusHead PROFIBUS Device Slave for the Connection Between the Higher Level Fieldbus and the Fieldbus Independent I/O Modules

Technical Information

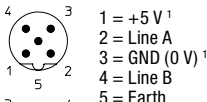
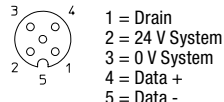
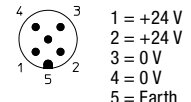
Product Description			
Type	0940 PSL 601	0940 PSL 602	0940 PSL 603
	 	 	 
Description	LioN-Link PROFIBUS BusHead, IP67 bus coupler module with M12 bus connection, 5-poles, B-coded, rotary switches for addressing, M12 LioN-Link connection, 5-poles, M12 power supply connection, 5-poles	LioN-Link PROFIBUS BusHead, IP67 bus coupler module with M12 bus connection, 5-poles, B-coded, rotary switches for addressing, M12 LioN-Link connection, 5-poles, M12 power supply connection, 5-poles	LioN-Link PROFIBUS BusHead with M12 bus connection, 5-poles, B-coded, rotary switches for addressing, M12 LioN-Link connection, 5-poles, M12 power supply connection, 5-poles
Note	BusHead for LioN-Link standard modules	Supports Profibus DP-V1 (acyclic communication), BusHead for LioN-Link standard modules, Motion module "0942 UEM 783" and I/O-Link module "0942 UEM 620"	BusHead for LioN-Link standard modules, PROFIBUS-Slave for applications such as tool change or options handling and "Shadow Mode" I/O module "0942 UEM 670"
Order No.	87058	106172	104873
Technical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Ambient Temperature	-10 °C to +60 °C		
Weight	200 g		
Bus System			
ID Number	0A36 hex	0B99 hex	0B98 hex
GSD File	Lum_0A36.gsd	Lum_0B99.gsd	Lum_0B98.gsd
Transmission Rate	max. 12 MBaud		
Address Range	1 to 125 dez		
System/Sensors Power Supply			
Rated Voltage	24 V AC/DC		
Voltage Range	19 to 30 V AC/DC		
Power Consumption	typ. 100 mA		
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	6 pieces		

Diagnostic Indication

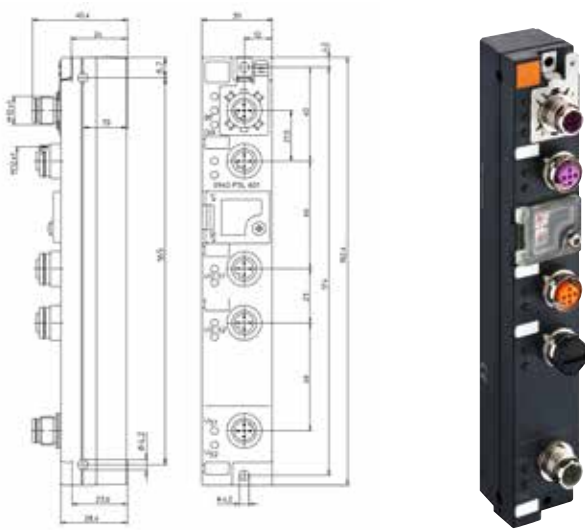
LED	Indicator	Condition
I/O Line 1	Red	Wrong configuration/module exchanged
I/O Line 2	Green	Online, communication with PLC
	Off	Branch not in use (module not connected)
Us1	Green	Sensor/system power supply Line 1
Us2	Green	Sensor/system power supply Line 2
BF	Red	Bus error
DIA	Red	Common indicator for periphery errors

Diagnosis according to Profibus specification, diagnosis for communication status, module breakdown and periphery faults in the Link system

Pin Assignment

Bus Connection M12, B-coded	LioN-Link Connection M12	Power Supply M12
 <p>1 = +5 V¹ 2 = Line A 3 = GND (0 V)¹ 4 = Line B 5 = Earth</p>	 <p>1 = Drain 2 = 24 V System 3 = 0 V System 4 = Data + 5 = Data -</p>	 <p>1 = +24 V 2 = +24 V 3 = 0 V 4 = 0 V 5 = Earth</p>



1 = Internal signals



0940 PSL 601 | 0940 PSL 602 | 0940 PSL 603

LioN-Link BusHead CANopen® and LioN-Link BusHead DeviceNet™ Device Slaves for the Connection Between the Higher Level Fieldbus and the Fieldbus Independent I/O Modules

Technical Information

Product Description		
Type	0940 CSL 601	0940 DSL 601
		
Description	LioN-Link CANopen® BusHead with M12 bus connection, 5-poles, rotary switches for addressing, M12 LioN-Link connection, 5-poles, M12 power supply connection, 5-poles	LioN-Link DeviceNet™ BusHead with M12 bus connection, 5-poles, rotary switches for addressing, M12 LioN-Link connection, 5-poles, M12 power supply connection, 5-poles
Note	A maximum of 6 LioN-Link I/O modules can be operated on this BusHead. Both supply points on the BusHead must always be connected.	A maximum of 16 LioN-Link I/O modules can be operated on this BusHead. Both supply points on the BusHead must always be connected.
Order No.	89975	89974
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	200 g	
Bus System		
GSD/EDS File	0940CSL601.eds	00_0940DSL601.eds
Transmission Rate	max. 1 MBaud	max. 500 kBaud
Address Range	1 to 99 dez	1 to 63 dez
Fieldbus Interfaces		
Rated Voltage	24 V AC/DC	
Voltage Range	11 to 30 V AC/DC	
Power Consumption	typ. 10 mA	
System/Sensors Power Supply		
Rated Voltage	24 V AC/DC	
Voltage Range	19 to 30 V AC/DC	
Power Consumption	System: typ. 60 mA, Fieldbus: typ. 10 mA	typ. 50 mA
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	6 pieces	

Diagnostic Indication

LED	Indicator	Condition
I/O Line 1	Red	Wrong configuration/module exchanged
I/O Line 2	Green	Online, communication with PLC
	Off	Branch not in use (module not connected)
Us (only 0940 DSL 601)	Green	Power supply of fieldbus interface
Us1	Green	Sensor/system power supply Line 1
Us2	Green	Sensor/system power supply Line 2
MS (Module status)	Green	Device is ready for operating
	Green blinking	Wrong configuration
	Red	Unrecoverable fault
	Red blinking	Recoverable fault
	Red/green blinking	Self test is running
NS (Network status)	Green	Online, communication with PLC
	Green blinking	Online, no communication with PLC
	Red blinking	Time-out state of one or more I/O connections
	Red	Failed communication device, Bus-off status, duplicate MAC-ID





Diagnosis for communication status, module breakdown and periphery faults in the Link system

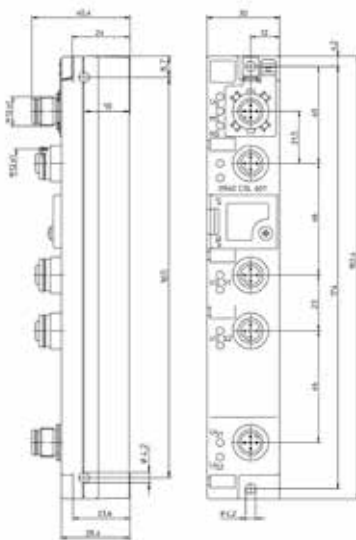
Bit Assignment 0940 DSL 601

Bit	7	6	5	4	3	2	1	0
Input								
Byte 0	0	0	0	0	US1	US2	KS1	KS2
Byte 1	DIAG S_8	DIAG S_7	DIAG S_6	DIAG S_5	DIAG S_4	DIAG S_3	DIAG S_2	DIAG S_1
Byte 2	DIAG S_16	DIAG S_15	DIAG S_14	DIAG S_13	DIAG S_12	DIAG S_11	DIAG S_10	DIAG S_9
Byte 3	STATUS S_8	STATUS S_7	STATUS S_6	STATUS S_5	STATUS S_4	STATUS S_3	STATUS S_2	STATUS S_1
Byte 4	STATUS S_16	STATUS S_15	STATUS S_14	STATUS S_13	STATUS S_12	STATUS S_11	STATUS S_10	STATUS S_9

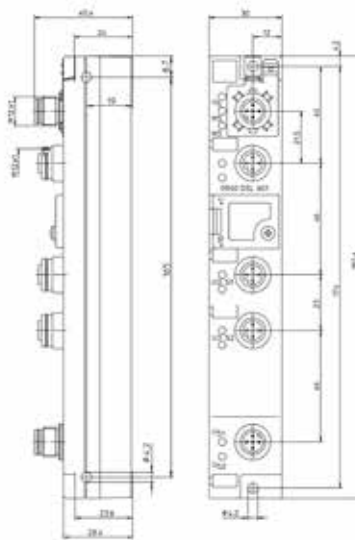
USx: Low voltage Line x
 KSx: Short circuit on Line x
 DIAG S_x: Diagnostic message I/O module x
 STATUS S_x: Configuration error I/O module x

Pin Assignment

Bus Connection M12	LioN-Link Connection M12	Power Supply M12
 <p>1 = Drain 2 = +24 V 3 = GND (0 V) 4 = CAN_H 5 = CAN_L</p>	 <p>1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data -</p>	 <p>1 = +24 V 2 = +24 V 3 = 0 V 4 = 0 V 5 = Earth</p>
 <p>Housing = Earth</p>		



0940 CSL 601



0940 DSL 601



LioN-Link I/O Modules – Digital Inputs

Technical Information

Product Description			
Type	0942 UEM 601	0942 UEM 651	0942 UEM 701
			
Description	LioN-Link I/O module with 8 digital inputs to connect standard sensors, 4 x M12 socket, 5-poles	LioN-Link I/O module with 8 digital inputs to connect standard sensors, 8 x M8 socket, 3-poles	LioN-Link I/O module with 16 digital inputs to connect standard sensors, 8 x M12 socket, 5-poles
Order No.	93201	87043	93198
Technical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Ambient Temperature	-10 °C to +60 °C		
Weight	175 g		275 g
System/Sensors Power Supply			
Rated Voltage	24 V AC/DC		
Voltage Range	19 to 30 V AC/DC		
Power Consumption	typ. 70 mA		typ. 100 mA
Input Power Supply			
Voltage Range	min. (U _{System} – 1.5 V)		
Sensor Current	700 mA per module		700 mA
Indicator	LED green		
Inputs			
Number of Digital Channels	max. 8		max. 16
Rated Voltage	24 V AC/DC		
Status Indicator	LED yellow per channel		
Diagnostic Indicator	LED red per channel		–
Included in Delivery			
M8 Dust Covers	–	4 pieces	–
M12 Dust Covers	2 pieces	–	4 pieces
Attachable Labels	6 pieces	10 pieces	10 pieces

Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input 0942 UEM 601								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Input 0942 UEM 701								
Byte 0	8	7	6	5	4	3	2	1
M8 Input 0942 UEM 651								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

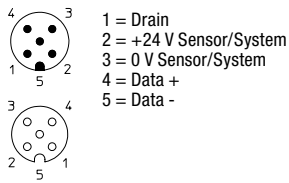
Diagnostic Indication

LED	Indicator	Condition
1...4 A/B	Yellow	Channel status
1...4 A/B	Red	Periphery error
I/O	Red Red blinking Green	Wrong configuration/module exchanged Not recognized by the BusHead Online, communication with BusHead
Us	Green	Sensor/system power supply
UL (only 0942 UEM 600)	Green	Actuator power supply
DIA	Red	Common indicator for periphery errors

Periphery fault diagnosis for sensor short circuit, sensor low voltage detection

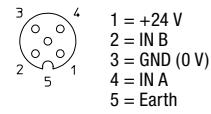
Pin Assignment 0942 UEM 601

LiON-Link Connection M12



- 1 = Drain
- 2 = +24 V Sensor/System
- 3 = 0 V Sensor/System
- 4 = Data +
- 5 = Data -

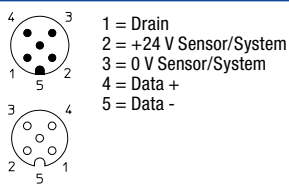
Actuator/Sensor Connection M12



- 1 = +24 V
- 2 = IN B
- 3 = GND (0 V)
- 4 = IN A
- 5 = Earth

Pin Assignment 0942 UEM 651

LiON-Link Connection M12



- 1 = Drain
- 2 = +24 V Sensor/System
- 3 = 0 V Sensor/System
- 4 = Data +
- 5 = Data -

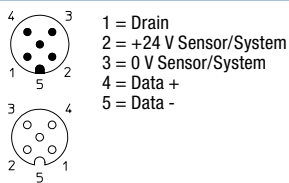
Actuator/Sensor Connection M12



- 1 = +24 V
- 3 = 0 V
- 4 = IN

Pin Assignment 0942 UEM 701

LiON-Link Connection M12

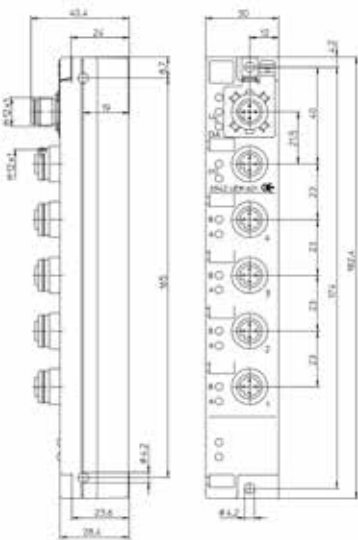


- 1 = Drain
- 2 = +24 V Sensor/System
- 3 = 0 V Sensor/System
- 4 = Data +
- 5 = Data -

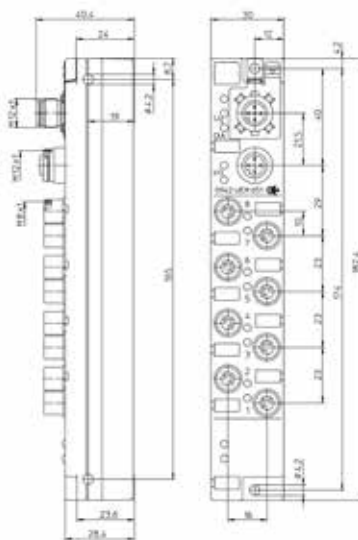
Actuator/Sensor Connection M12



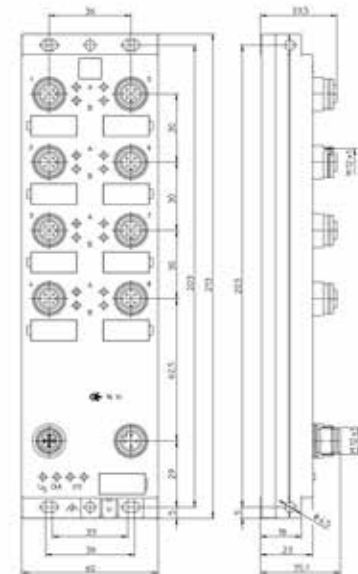
- 1 = +24 V
- 2 = IN/OUT B
- 3 = 0 V
- 4 = IN/OUT A
- 5 = Earth



0942 UEM 601





0942 UEM 651



0942 UEM 701

LioN-Link I/O Modules – Digital Outputs

Technical Information

Product Description			
Type	0942 UEM 602	0942 UEM 612	0942 UEM 782
			
Description	LioN-Link I/O module with 4 digital outputs, 4 x M12 socket, 5-poles, 2 A per channel, one channel per socket	LioN-Link I/O module with 4 digital outputs, 4 x M12 socket, 5-poles, M12 actuator supply, 2 A per channel, one channel per socket	LioN-Link I/O module with 16 digital outputs, multipole cable interface to connect valve terminals, manual tool changing devices, IP20 terminal boxes
Note	Particularly suitable for the control of hydraulic valves.	Suitable for safety critical applications within performance levels A through D. The instructions in the LioN-Link manual must be observed in this case.	–
Order No.	108105	108106	102840
Technical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Ambient Temperature	-10 °C to +60 °C		
Weight	200 g		320 g (with 1 m cable)
System/Sensors Power Supply			
Rated Voltage	24 V AC/DC		
Voltage Range	19 to 30 V AC/DC		
Power Consumption	typ. 70 mA		40 mA
Output Power Supply			
Rated Voltage	24 V AC/DC		
Voltage Range	19 to 30 V AC/DC	19 to 28.8 V AC/DC (SELV/PELV acc. to EN 60950-1)	19 to 30 V AC/DC
Reverse Polarity Protection	yes/antiparallel diode	yes/antiparallel diode, external fuse with 4/6 A medium time lag mandatory	yes/antiparallel diode
Indicator	LED green		
Outputs			
Number of Digital Channels	max. 4		max. 16
Rated Output Current	2 A per channel		0.5 A per channel
Short Circuit-proof	yes		
Max. Current Carrying Capacity	4 A (3-pole supply line); 6 A (5-pole supply line)		6 A (3 A per group)
Status Indicator	LED yellow per channel		–
Diagnostic Indicator	LED red per channel		–
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	6 pieces		10 pieces

Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Output 0942 UEM 602 + 612								
Byte 0	–	–	–	–	4A	3A	2A	1A
M12 Output 0942 UEM 782								
Byte 0	RD	BU	PK	GY	YE	GN	BN	WH
Byte 1	YE/BN	WH/YE	BN/GN	WH/GN	RD/BU	GY/PK	VT	BK

Diagnostic Indication

LED	Indicator	Condition
1...4 A (only 0942 UEM 602 + 612)	Yellow	Channel status
1...4 DIA (only 0942 UEM 602 + 612)	Red	Periphery error/output active with no actuator supply voltage
I/O	Red Red blinking Green	Wrong configuration/module exchanged Not recognized by the BusHead Online, communication with BusHead
Us	Green	Sensor/system power supply
UL	Green	Actuator power supply
DIA	Red	Common indicator for periphery errors

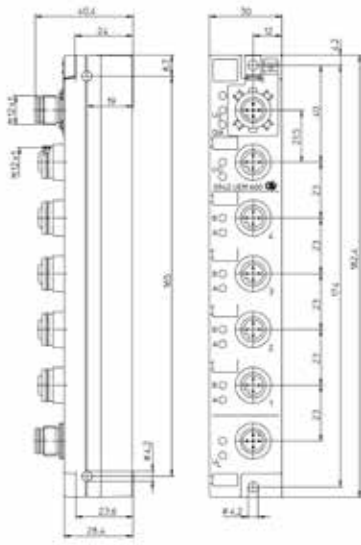
Periphery fault diagnosis for actuator short circuit/overload per channel

Pin Assignment 0942 UEM 602 and 0942 UEM 612

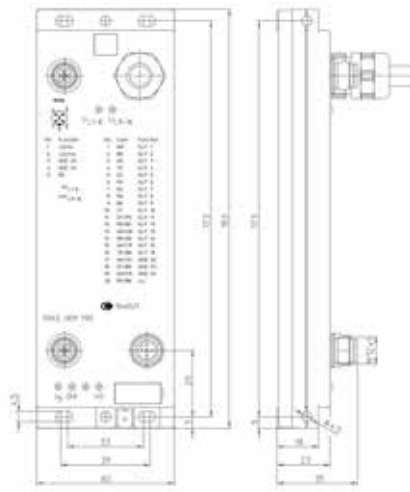
LiON-Link Connection M12	Actuator Connection M12	Actuator Supply M12
<ul style="list-style-type: none"> 1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data - 	<ul style="list-style-type: none"> 1 = n.c. 2 = n.c. 3 = 0 V 4 = OUT A 5 = Earth 	<ul style="list-style-type: none"> 1 = +24 V DC 2 = +24 V DC 3 = GND 0 V 4 = GND 0 V 5 = Functional earth

Pin Assignment 0942 UEM 782

LiON-Link Connection M12	Actuator/Sensor Connection M12
<ul style="list-style-type: none"> 1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data - 	<ul style="list-style-type: none"> 1 = +24 V (UL 1-8) 2 = +24 V (UL 9-16) 3 = GND (0 V) 4 = GND (0 V) 5 = Earth



0942 UEM 602, 0942 UEM 612





0942 UEM 782



LioN-Link I/O Modules - Universal

Technical Information

Product Description		
Type	0942 UEM 600	0942 UEM 620
		
Description	LioN-Link I/O module with 8 digital I/O channels, channels can be used universally as inputs or outputs, 4 x M12 socket, 5-poles, M12 actuator supply, 5-poles	LioN-Link I/O module with 4 I/O-Link channels, each channel can be configured universally in standard digital I/O mode (SIO mode) or in communications mode, M12 socket, 4-poles, M12 I/O-Link supply, 5-poles
Note	–	Only with BusHead 0940 PSL 602 or ProfiNet BusHead 0940 ESL 601. The information in the operating instructions must be observed.
Order No.	92356	108053
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	200 g	175 g
System/Sensors Power Supply		
Rated Voltage	24 V AC/DC	
Voltage Range	19 to 30 V AC/DC	
Power Consumption	typ. 70 mA	
Input Power Supply		
Voltage Range	min. (U _{System} – 1.5 V)	24 V DC
Sensor Current	700 mA per module	
Indicator	LED green	
Inputs		
Number of Digital Channels	max. 8	
Rated Voltage	24 V AC/DC	
Status Indicator	LED yellow per channel	LED A green/yellow
Diagnostic Indicator	LED red per channel	LED red
Output Power Supply		I/O-Link-Power Supply
Rated Voltage	24 V AC/DC	24 V AC/DC
Voltage Range	19 to 30 V AC/DC	19 to 30 V AC/DC
Reverse Polarity Protection	yes/antiparallel diode	yes/antiparallel diode
Indicator	LED green	LED green
Outputs		
Number of Digital Channels	max. 8	–
Rated Output Current	1.6 A per channel	–
Short Circuit-proof	yes	–
Max. Current Carrying Capacity	4 A per module	–
Status Indicator	LED yellow per channel	–
Diagnostic Indicator	LED red per channel	–
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	6 pieces	

Bit Assignment 0942 UEM 600

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A

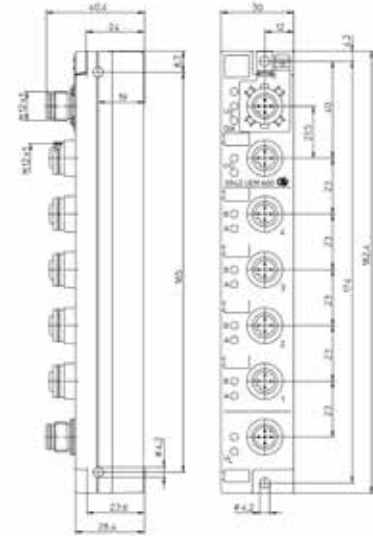
Diagnostic Indication

LED	Indicator	Condition
1...4 A/B (only 0942 UEM 600)	Yellow Red	Channel status Periphery error
1...4 A/IOL (only 0942 UEM 620)	Green Yellow	I/O-Link communications mode Standard I/O mode (SIO)
1...4 B/DIA (only 0942 UEM 620)	Red blinking Red	I/O-Link diagnostic: IOL fault SIO mode: periphery fault
I/O (only 0942 UEM 620)	Yellow	Channel status in SIO mode
I/O	Red Red blinking Green	Wrong configuration/module exchanged Not recognized by the BusHead Online, communication with BusHead
Us	Green	Sensor/system power supply
UL	Green	Actuator power supply
DIA	Red	Common indicator for periphery errors

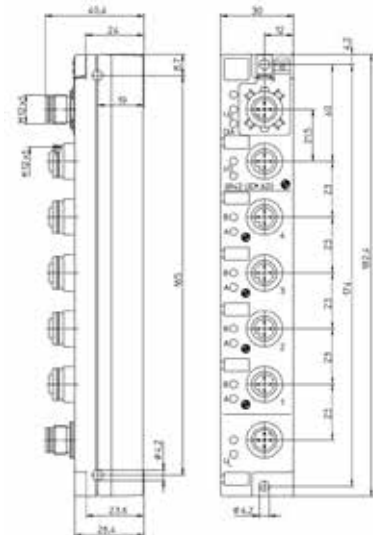
Periphery fault diagnosis for sensor short circuit, actuator short circuit/channel, sensor low voltage detection

Bit Assignment 0942 UEM 620

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Channel 1: 1 byte, 1 word or not configured																
Byte	Byte 0								Byte 1							
Port	1								1							
Channel 2: 1 byte, 1 word or not configured																
Byte	Byte 2								Byte 3							
Port	2								2							
Assignment	I/O-Link-Device process data/High Byte								I/O-Link-Device process data/Low Byte							
Channel 3: 1 byte, 1 word or not configured																
Byte	Byte 4								Byte 5							
Port	3								3							
Assignment	I/O-Link-Device process data/High Byte								I/O-Link-Device process data/Low Byte							
Channel 4: 1 byte, 1 word or not configured																
Byte	Byte 6								Byte 7							
Port	4								4							
Assignment	I/O-Link-Device process data/High Byte								I/O-Link-Device process data/Low Byte							
2 bytes (module status)																
Byte	Byte 8								Byte 9							
Port	-	-	-	-	4	3	2	1	4	3	2	1	4	3	2	1
Assignment	-	-	-	-	Pin 4 = DI	Pin 4 = DI	Pin 4 = DI	Pin 4 = DI	1 = I/O-Link 0=SIO	1 = I/O-Link 0=SIO	1 = I/O-Link 0=SIO	1 = I/O-Link 0=SIO	Pin 2 = DI	Pin 2 = DI	Pin 2 = DI	Pin 2 = DI



0942 UEM 600



0942 UEM 620

Pin Assignment 0942 UEM 600

LiOn-Link Connection M12		Actuator/Sensor Connection M12		Actuator Supply M12	
	1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data -		1 = +24 V 2 = IN/OUT B 3 = 0 V 4 = IN/OUT A 5 = Earth		1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = n.c. 5 = Earth



Pin Assignment 0942 UEM 620

LiOn-Link Connection M12		I/O-Link Connection M12		I/O-Link Supply M12	
	1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data -		1 = +24 V DC 2 = IN B 3 = 0 V 4 = I/O-Data/IN A 5 = Earth		1 = +24 V DC 2 = n.c. 3 = GND 0 V 4 = n.c. 5 = Functional earth



LioN-Link I/O Modules - Universal

Technical Information

Product Description		
Type	0942 UEM 650	0942 UEM 670
		
Description	LioN-Link I/O module with 8 digital I/O channels, channels can be used universally as inputs or outputs, 8 x M8 socket, 3-poles, M12 actuator supply, 5-poles	LioN-Link I/O module with 8 digital I/O channels, channels can be used universally as inputs or outputs, 8 x M8 socket, 3-poles, actuator supply, 5-poles, "Shadow Mode"
Note	-	This I/O module can only be used with the BusHead 0940 PSL 603. In addition to being used as a dedicated input or output module, this module can also be operated in Shadow Input and Shadow Output mode.
Order No.	87040	104872
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	175 g	
System/Sensors Power Supply		
Rated Voltage	24 V AC/DC	
Voltage Range	19 to 30 V AC/DC	
Power Consumption	typ. 70 mA	
Input Power Supply		
Voltage Range	min. (U _{system} - 1.5 V)	24 V DC
Sensor Current	700 mA per module	
Indicator	LED green	
Inputs		
Rated Voltage	24 V AC/DC	
Number of Digital Channels	max. 8	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Output Power Supply		
Rated Voltage	24 V AC/DC	
Voltage Range	19 to 30 V AC/DC	
Reverse Polarity Protection	yes/antiparallel diode	
Indicator	LED green	
Outputs		
Number of Digital Channels	max. 8	
Rated Output Current	0.5 A per channel	
Short Circuit-proof	yes	
Max. Current Carrying Capacity	4 A per module	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Included in Delivery		
M8 Dust Covers	4 pieces	
Attachable Labels	10 pieces	

Bit Assignment





Bit	7	6	5	4	3	2	1	0
M8 Input								
Byte 0	8	7	6	5	4	3	2	1
M8 Output								
Byte 0	8	7	6	5	4	3	2	1

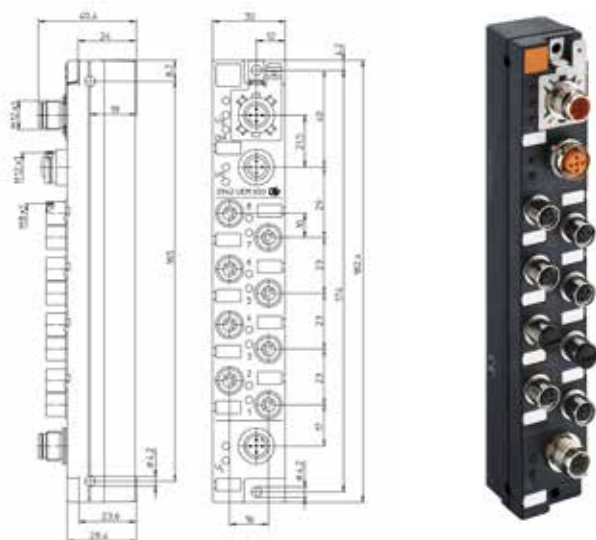
Diagnostic Indication

LED	Indicator	Condition
1...8	Yellow Red	Channel status Periphery error
I/O	Red Red blinking Green	Wrong configuration/module exchanged Not recognized by the BusHead Online, communication with BusHead
Us	Green	Sensor/system power supply
UL	Green	Actuator power supply
DIA	Red	Common indicator for periphery errors

Periphery fault diagnosis for sensor short circuit, actuator short circuit, sensor low voltage detection

Pin Assignment



LioN-Link Connection M12	Actuator/Sensor Connection M12	Actuator Supply M12
 <ul style="list-style-type: none"> 1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data - 	 <ul style="list-style-type: none"> 1 = +24 V 3 = 0 V 4 = IN/OUT 	 <ul style="list-style-type: none"> 1 = +24 V 2 = n.c. 3 = GND (0 V) 4 = n.c. 5 = Earth
		



0942 UEM 650 | 0942 UEM 670

LioN-Link I/O Modules - Universal

Technical Information

Product Description	
Type	0942 UEM 700  
Description	LioN-Link I/O module with 16 digital I/O channels, channels can be used universally as inputs or outputs, 8 x M12 socket, 5-poles, 7/8" actuator supply, 5-poles
Order No.	93199
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Ambient Temperature	-10 °C to +60 °C
Weight	375 g
System/Sensors Power Supply	
Rated Voltage	24 V AC/DC
Voltage Range	19 to 30 V AC/DC
Power Consumption	typ. 100 mA
Input Power Supply	
Voltage Range	min. (U _{System} - 1.5 V)
Sensor Current	700 mA per module
Indicator	LED green
Inputs	
Number of Digital Channels	max. 8
Rated Voltage	24 V AC/DC
Status Indicator	LED yellow per channel
Output Power Supply	
Rated Voltage	24 V AC/DC
Voltage Range	19 to 30 V AC/DC
Reverse Polarity Protection	yes/antiparallel diode
Indicator	LED green
Outputs	
Number of Digital Channels	max. 16
Rated Output Current	1.6 A per channel
Short Circuit-proof	yes
Max. Current Carrying Capacity	9 A per module
Status Indicator	LED yellow per channel
Diagnostic Indicator	LED red per channel
Included in Delivery	
M12 Dust Covers	4 pieces
Attachable Labels	10 pieces

Bit Assignment 0942 UEM 700

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A
M12 Output								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
Byte 1	8B	8A	7B	7A	6B	6A	5B	5A

Bit Assignment 0942 UEM 780

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	RD	BU	PK	GY	YE	GN	BN	WH
Byte 1	YE/BN	WH/YE	BN/GN	WH/GN	RD/BU	GY/PK	VT	BK
M12 Output								
Byte 0	RD	BU	PK	GY	YE	GN	BN	WH
Byte 1	YE/BN	WH/YE	BN/GN	WH/GN	RD/BU	GY/PK	VT	BK

Diagnostic Indication

LED	Indicator	Condition
1...8 A/B (only 0942 UEM 700)	Yellow	Channel status
1...8 (only 0942 UEM 700)	Red	Periphery error
I/O	Red Red blinking Green	Wrong configuration/module exchanged Not recognized by the BusHead Online, communication with BusHead
Us	Green	Sensor/system power supply
UL	Green	Actuator power supply
DIA	Red	Common indicator for periphery errors

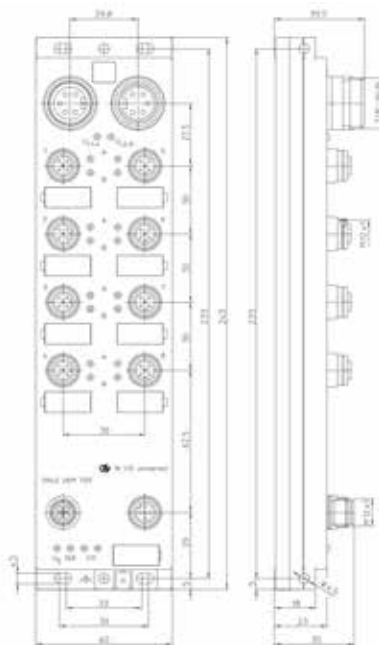
Periphery fault diagnosis for sensor short circuit, actuator short circuit, sensor low voltage detection

Pin Assignment 0942 UEM 700

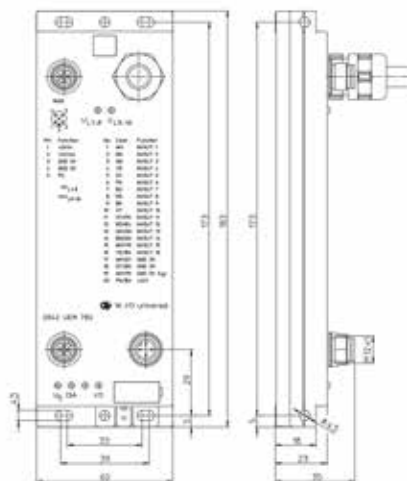
LiON-Link Connection M12	Actuator/Sensor Connection M12	Actuator Supply 7/8"
<ul style="list-style-type: none"> 1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data - 	<ul style="list-style-type: none"> 1 = +24 V 2 = IN/OUT B 3 = 0 V 4 = IN/OUT A 5 = Earth 	<ul style="list-style-type: none"> 1 = GND (0 V) 2 = GND (0 V) 3 = Earth 4 = 24 V (UL 5-8) 5 = 24 V (UL 1-4)

Pin Assignment 0942 UEM 780

LiON-Link Connection M12	Actuator Supply M12
<ul style="list-style-type: none"> 1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data - 	<ul style="list-style-type: none"> 1 = +24 V (UL 1-8) 2 = +24 V (UL 9-16) 3 = GND (0 V) 4 = GND (0 V) 5 = Earth



0942 UEM 700





0942 UEM 780



LioN-Link I/O Modules with 4 Analog Inputs

Technical Information

Product Description		
Type	0942 UEM 630	0942 UEM 631
		
Description	LioN-Link I/O module with 4 analog inputs, 0(4) to 20 mA to connect standard sensors, 4 x M12 socket, 5-poles	LioN-Link I/O module module with 4 analog inputs, 0 to 10 V to connect standard sensors, 4 x M12 socket, 5-poles
Order No.	102076	102080
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	175 g	
Input Power Supply		
Voltage Range	min. (U _{System} - 1.5 V)	24 V AC/DC
Sensor Current	700 mA per module	
Inputs		
Number of Analog Channels	max. 4	
Measurement Signal	(0)4 to 20 mA (current inputs)	0 to 10 V (voltage inputs)
Resolution	12 Bit + sign	
Measuring Fault (full measuring range)	± 1.2%	
Temperature Fault (full measuring range)	± 0.01%/K	
Output Formats	Siemens S7	
Input Impedance	≤ 400 Ω	20 Ω
Conversion Time	typ. 25 ms per channel	
Status Indicator	LED yellow: channel active	
Module Diagnostic (Module Status Sensor Short Circuit)		
Indicator	LED red/green (I/O)	
Channel Diagnostic		
Overload at Current Measurement	0 to 20 mA	-
Overload at Current Measurement/ Underflow/Broken Wire	4 to 20 mA	-
Indicator	LED red (DIA)	
GSD Configuration		
Module Way	Resolution 12 Bit, 10 Bit (conversion time ≤ 3 ms/module)	
Channel Way	Measuring range 0 to 20 mA or 4 to 20 mA, broken wire (only 4 to 20 mA), channel on/off, diagnostic on/off	Channel on/off, diagnostic on/off
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	6 pieces	

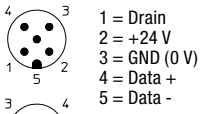
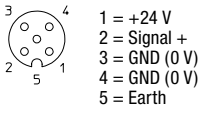
Bit Assignment

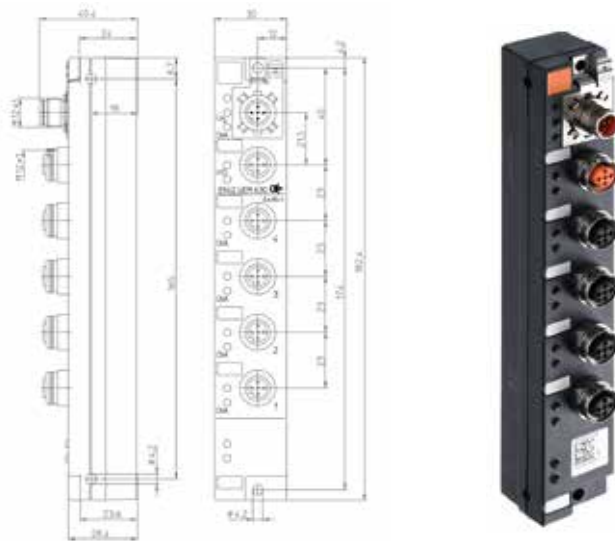
Bit	7	6	5	4	3	2	1	0
	M12 Input							
Byte 0								
Byte 1	Channel 1							
Byte 2								
Byte 3	Channel 2							
Byte 4								
Byte 5	Channel 3							
Byte 6								
Byte 7	Channel 4							

Diagnostic Indication

LED	Indicator	Condition
1...4	Yellow	Channel status
1...4 DIA	Red	Periphery error
I/O	Red Red blinking Green	Wrong configuration/module exchanged Not recognized by the BusHead Online, communication with BusHead
Us	Green	Sensor/system power supply
DIA	Red	Common indicator for periphery errors

Pin Assignment





LiöN-Link Connection M12	Sensor Connection M12
 <p>1 = Drain 2 = +24 V 3 = GND (0 V) 4 = Data + 5 = Data -</p>	 <p>1 = +24 V 2 = Signal + 3 = GND (0 V) 4 = GND (0 V) 5 = Earth</p>



0942 UEM 630 | 0942 UEM 631

LioN-Link I/O Modules with Digital Inputs and Digital or Analog Outputs (Motion Drive Control)

Technical Information

Product Description		
Type	0942 UEM 783	
	   	
Description	LioN-Link-Motion module with 8 digital inputs and 4 universal outputs (digital or analog), M12 socket, 5-poles, Power supply is via a connecting cable with 7/8" connector, 3-poles	
Note	Only to be used in combination with BusHead 0940 PSL 602. Module used to control brushless (EC) motors as well as brush loaded (DC) motors and all types of digital actuators (e.g. valves or direct current motors). System specific specifications such as speed and acceleration/deceleration can be transmitted via the DP-V1 protocol.	
Order No.	102163	
Technical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Ambient Temperature	-10 °C to +60 °C	
Weight	175 g	
System/Sensors Power Supply		
Rated Voltage	24 V AC/DC	
Voltage Range	19 to 30 V AC/DC	
Power Consumption	typ. 100 mA	
Input Power Supply		
Voltage Range	24 V AC/DC	
Sensor Current	700 mA per module	
Indicator	LED green	
Inputs		
Number of Digital Channels	max. 8	
Rated Voltage	24 V AC/DC, Input current typ. 5 mA	
Status Indicator	LED yellow per channel	
Diagnostic Indicator	LED red per channel	
Output Power Supply		
Rated Voltage	24 V AC/DC	
Voltage Range	19 to 30 V AC/DC	
Reverse Polarity Protection	yes/antiparallel diode	
Indicator	LED green	
Outputs		
	Type I (Type 3 acc. to IEC 61131-2 Output module Pin 2)	Type II (Type 3 acc. to IEC 61131-2 Output module Pin 5)
Number of Channels	max. 4 digital	max. 4 analog
Rated Output Current	1.5 A per channel	–
Short Circuit-proof	yes	–
Max. Current Carrying Capacity	7.2 A per module	–
Status Indicator	LED yellow per channel	–
Diagnostic Indicator	LED red per channel	–
Included in Delivery		
M12 Dust Covers	4 pieces	
Attachable Labels	10 pieces	



Bit Assignment

Bit	7	6	5	4	3	2	1	0
M12 Input								
Byte 0	4B	4A	3B	3A	2B	2A	1B	1A
M12 Output								
	Socket 8		Socket 7		Socket 6		Socket 5	
Byte 0	Dir	Start	Dir	Start	Dir	Start	Dir	Start

Diagnostic Indication

LED	Indicator	Condition
1...4 A/B	Yellow Red	Channel status Periphery error (actuator short circuit/overload)
I/O	Red Red blinking Green	Wrong configuration/module exchanged Not recognized by the BusHead Online, communication with BusHead
Us	Green	Sensor/system power supply
Ul	Green	Actuator power supply
DIA	Red	Common indicator for periphery errors

Pin Assignment

LioN-Link Connection M12		Actuator/Sensor Connection M12	
 <p>1 = Drain 2 = +24 V Sensor/System 3 = 0 V Sensor/System 4 = Data + 5 = Data -</p>		IN 1 = +24 V DC 2 = IN B 3 = 0 V 4 = IN A 5 = Earth	OUT 1 = +24 V DC 2 = Dir 3 = 0 V 4 = Dia 5 = Speed (0 to 10 V)

Power Supply for Motors		
	Function 1 = Diag. OUT 2 = +24 V 3 = 0 V	Wire color black brown blue



0942 UEM 783



I/O Modules Passive – Stand-Alone



Be certain. Belden.

Actuator/Sensor Distribution Boxes: M8 and M12 Connections

Passive distribution boxes come in a variety of configurations and meet practically every on-machine application requirement. They include 4, 6, 8, 10 or 12-port designs with M8 or M12 connections, single or duplex assignments, fixed home run cables or as an on-board pluggable variant. All variants are available with or without LED function indicators.

For particularly harsh environments, a series of distribution boxes with stainless steel housing and stainless steel connectors are available.

The portfolio also includes actuator/sensor distribution boxes for avoiding electrostatic discharges. The distribution boxes are made from a special conductive plastic, which releases resulting electrostatic charges to the machine bed or machine ground, which is an indispensable part of universal ESD protection measures.

In order to meet the special requirements of the food and beverage industry, the product range includes distribution boxes whose materials are characterized by a high degree of resistance to aggressive cleaning and chemical agents.

Bundled, stable
performance for full
operational reliability.

Flexibly and Quickly

Depending on the design, the bus can have be a fixed connection to the distribution box or can be attached to the corresponding plug connection using an M12 or M23 cordset to provide more flexibility. Pluggable versions make it possible to replace individual defective wires instead of the entire distribution box, which facilitates quick maintenance and repair, while reducing costs.

Guaranteed Reliability

Lumberg Automation products are fully tested to ensure complete functionality and maximum operational reliability. LEDs for operating voltage and standard input/output signals make it easier to find errors relating to system malfunctions or other situations requiring maintenance or repair. This minimizes downtime.

IP67 – Resistance to Vibration and Jarring

Another advantage to using actuator/sensor distribution boxes is their particularly high level of resistance to vibration, which also increases the safety of the electrical wiring. With a minimum IP67 protection rating, actuator/sensor distribution boxes enable on-site installation close to inputs and outputs, which, in turn, simplifies the wiring and improves signal performance. A protective housing or additional protection using a subdistribution box is not necessary.

Optimal Handling

Lumberg Automation products combine compact construction and optimum handling characteristics to enable fast, easy, and safe wiring.

Compact: Due to their compact construction, M8 and M12 distribution boxes only take up a small amount of space in on machines or larger automated systems.

Turn 8 into 16

As with all Lumberg Automation distribution boxes, the gaps between individual slots have been designed to allow connection of 2-way T-distribution boxes, making it possible to control up to 16 actuators and sensors over a single 8-port distribution box.

For Harsh Environments

Stainless-steel models are also provided for use in food-processing machinery and other special applications where aggressive chemicals or cleaning agents are used.



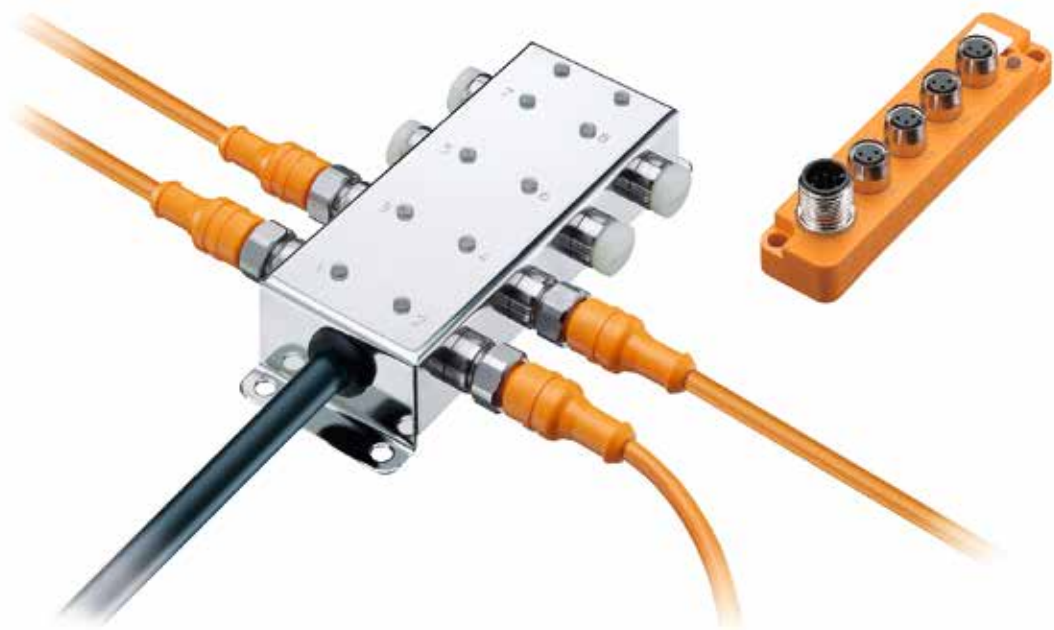
General Information

Standard features:

- Space-saving design for versatile applications in a minimum of space
- Quick installation, due to various fixing options
- Simple installation of both molded and field attachable connectors, thanks to displaced arrangement of the connections in the M8 distributors
- Broad range of applications, thanks to high vibration and shock resistance

Customer Benefits

- Cost savings/profit increases
- Simple installation and maintenance: because the signals are bundled, the time required is minimized
- Flexibility: various connection technologies (M12 and M8 sensors and actuators, pluggable on the side of the control unit or wired/flexible port variants from four to twelve)
- Ultimate reliability: fail-safe modules with long service life (long-term stability)
- Competitive edge, owing to simple procurement of spare parts via worldwide sales network



Excellent resistance,
even under tough
conditions.

Product Features

- Environmental temperature: -25 °C to +80 °C
(variants also for outdoor applications from -40 °C to +80 °C)
- Materials (depending on type of module)
 - Housing: die-cast zinc, PBT, TPU or stainless steel
 - Insert: PA or PVC
 - Contacts: CuZn, pre-nickeled and gold plated
- Mechanical data
 - Protection class: IP67/IP69K
- Electrical data
 - Nominal current at +40 °C: 1.5 A to 4 A per port and up to 12 A per module
 - Nominal voltage: 10 to 30 V DC
- Module construction/granulari
 - M8 pluggable: 4-, 6-, 8-, 10-way
 - M8 with cable: 4-, 6-, 8-, 10-, 12-way
 - M12: 4-, 6-, 8-way distributor
 - Single or duplex channel model
 - With/without LED
 - Pluggable or with molded cable (complete solutions with wide choice of variants, including customer-specific solutions and OEM solutions)

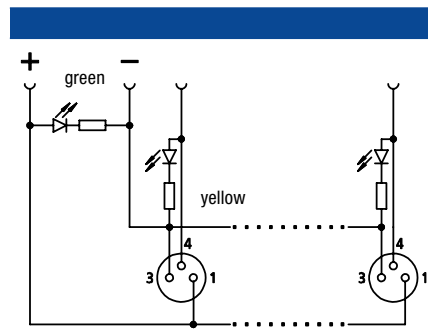


Pluggable M8 Rugged Distribution Boxes





Technical Information

Product Description		
Type	ASBSM... LED	SBS 4/LED
	 	 
Description	ASB-S pluggable miniature actuator/sensor distribution box with LED operation and function indicators, 4 to 10 ports, M8 socket, 3-poles, 1 signal per socket, M12 connection for the control cable, 12-poles	ASB-Classic pluggable miniature sensor distribution box with LED operation and function indicators, 4 x M8 socket, 3-poles, 1 signal per socket, M12 connection for the control cable, 8-poles
Technical Data		
Ambient Temperature	-25 °C to +70 °C	
Housing Material	PBT	TPU, self-extinguishing
Contact Insert	PA, self-extinguishing	TPU, self-extinguishing
Contact	CuZn, pre-nickel and gold-plated M8, M12	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	10 to 30 V AC/DC	
Rated Current	1.5 A per outlet/1.5 A max. total	2 A per outlet/2 A max. total
Included in Delivery		
M8 Dust Covers	2 pieces	
Attachable Labels	4 ports: 5 pieces 6 to 8 ports: 10 pieces 10 ports: 15 pieces	1 piece

Wiring Diagram ASBSM... LED






Pin Assignment ASBSM... LED

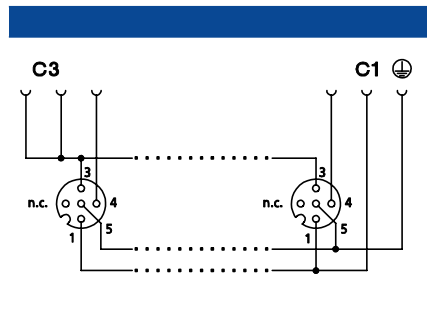
4 Ports		6 Ports	
	1 = 1 (+) 3 = 2 (-) 4 = 3 (1) 4 (2) 6 (3) 8 (4)		1 = 1 (+) 3 = 2 (-) 4 = 3 (1) 4 (2) 6 (3) 8 (4) 5 (5) 9 (6)
8 Ports		10 Ports	
	1 = 1 (+) 3 = 2 (-) 4 = 3 (1) 4 (2) 6 (3) 8 (4) 5 (5) 9 (6) 7 (7) 10 (8)		1 = 1 (+) 3 = 2 (-) 4 = 3 (1) 4 (2) 6 (3) 8 (4) 5 (5) 9 (6) 7 (7) 10 (8) 11 (9) 12 (10)

Pluggable M12 Rugged Distribution Boxes

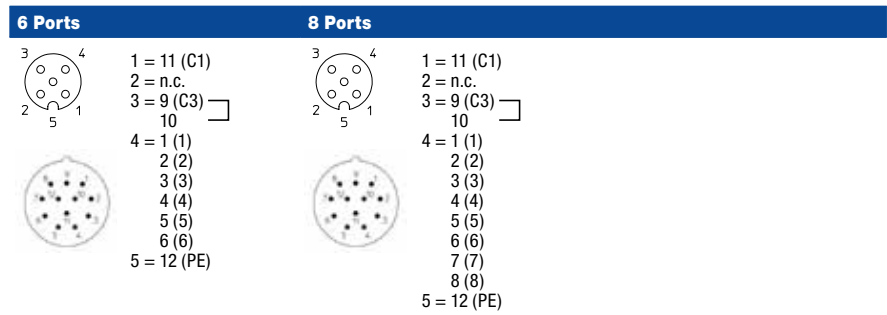
Technical Information

Product Description			
Type	ASBS...	ASBS... LED	ASBS 8/LED 5-4/4E-4A
			
Description	ASB-Classic pluggable actuator/sensor distribution box, 6 and 8 ports, combined FIXCON®/M12 socket, 4-poles, 1 signal per socket, earth connection, M23 connection for the control cable, 12-poles	ASB-Classic pluggable actuator/sensor distribution box with LED operation and function indicators, 4, 6 and 8 ports, combined FIXCON®/M12 socket, 4-poles, 1 signal per socket, earth connection, M23 connection for the control cable, 12-poles	ASB-M pluggable actuator/sensor distribution box with LED operation and function indicators, 8 ports, to connect 4 standard sensors and 4 standard actuators with separate power supply for inputs and outputs, combined FIXCON®/M12 socket, 4-poles, 1 signal per socket, M23 connection for the control cable, 12-poles
Technical Data			
Ambient Temperature	-15 °C to +80 °C		
Housing Material	TPU, self-extinguishing		
Contact Insert	PA GF, self-extinguishing		
Contact	CuZn, pre-nickel and gold-plated M8, M12		
Mechanical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Electrical Data			
Volume Resistance	≤ 5 mΩ		
Rated Voltage	10 to 30 V AC/DC		
Rated Current	4 A per outlet/12 A max. total		
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	5 pieces		

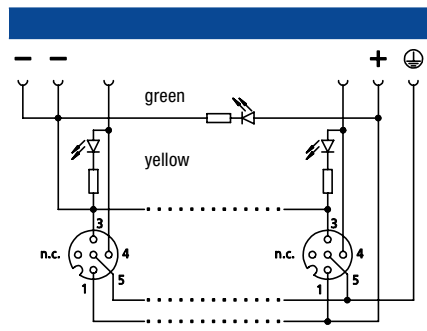
Wiring Diagram ASBS...



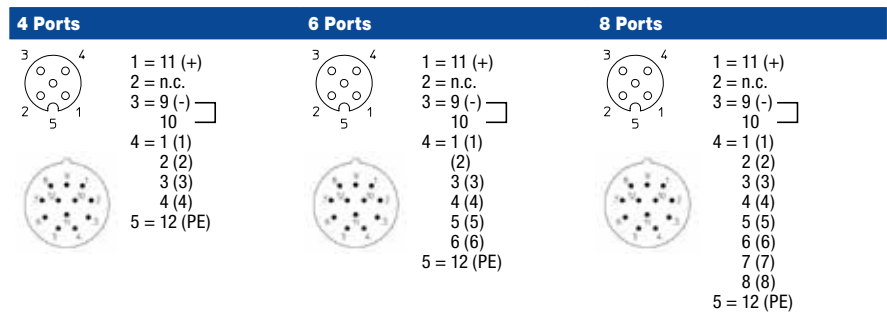
Pin Assignment ASBS...



Wiring Diagram ASBS... LED



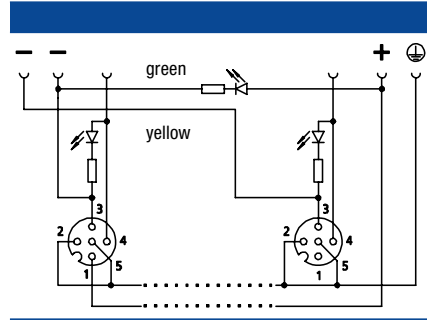
Pin Assignment ASBS... LED



Pin Assignment ASBS 8/LED 5-4/4E-4A

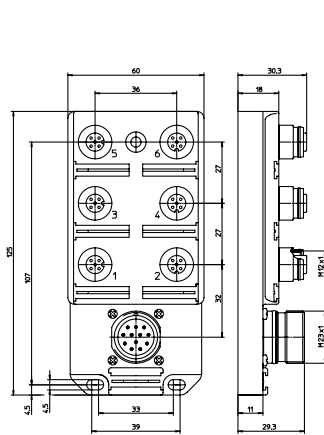
8 Ports	
	IN
1	11 (+)
2	12 (PE)
3	10 (-)
4	1
5	2
	OUT
1	n.c.
2	12 (PE)
3	9 (-)
4	5
5	6
	7
	8
	5 = 12 (PE)

Wiring Diagram ASBS 8/LED 5-4/4E-4A

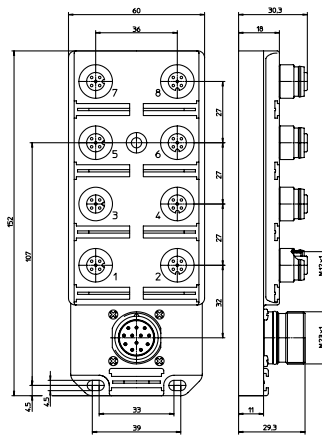


Ordering Designation

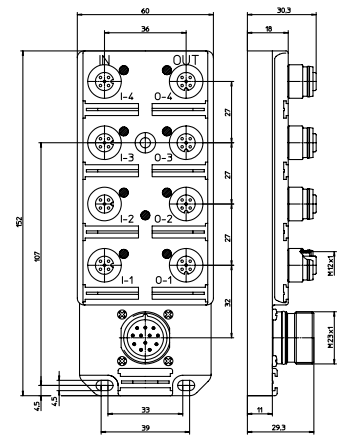
Order No.	Ordering Designation	Performance
11127	ASBS 6 5-4	6 ports
11129	ASBS 8 5-4	8 ports
11126	ASBS 4/LED 5-4	4 ports
11128	ASBS 6/LED 5-4	6 ports
11130	ASBS 8/LED 5-4	8 ports
53499	ASBS 8/LED 5-4/4E-4A	8 ports



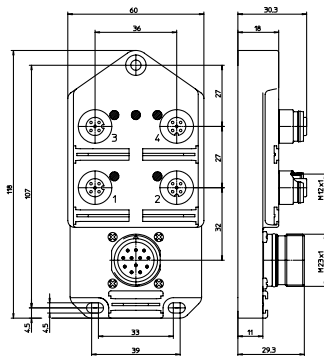
ASBS 6



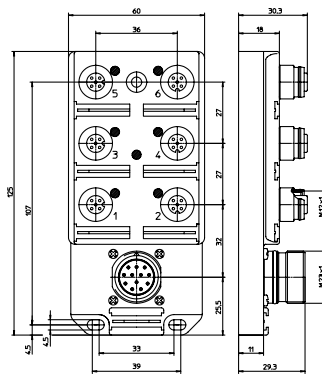
ASBS 8



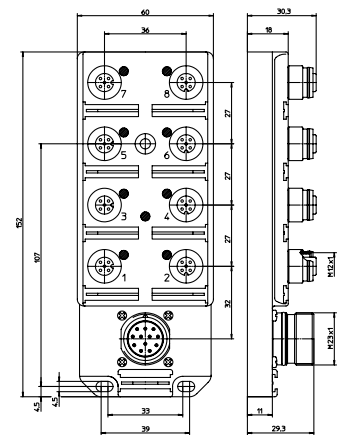
ASBS 8/LED 5-4/4E-4A



ASBS 4/LED



ASBS 6/LED







ASBS 8/LED

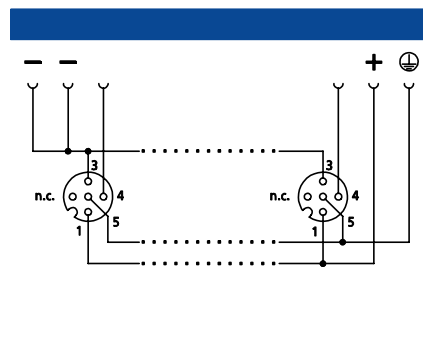
The application of these products in harsh environments should always be checked before use. Technical modifications reserved.

Pluggable M12 Rugged Distribution Boxes

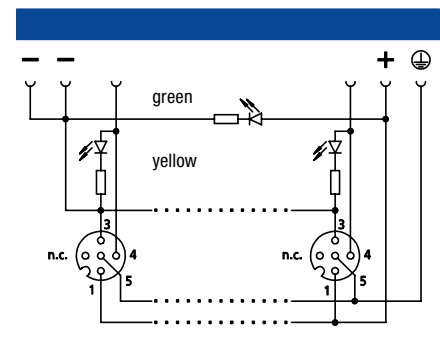
Technical Information

Product Description		
Type	ASBS-R	ASBS-R... LED
	 	 
Description	ASBS-R pluggable actuator/sensor distributor, 4 and 8 ports, M12 socket, 4-poles, 1 signal per socket, earth connection, M23 connection for the control cable, 12-poles	ASBS-R pluggable actuator/sensor distributor, 4 and 8 ports, M12 socket, 4-poles, with LED operating and function display, 1 signal per socket, earth connection, M23 connection for the control cable, 12-poles
Technical Data		
Ambient Temperature	-40 °C to +80 °C (for drag-chain applications -25 °C to +60 °C), UL max. +60 °C	
Housing Material	Made of die-cast zinc; potting compound: 2K PUR	
Contact Insert	M12: PA, potted; M23: PBT	
Contact	CuZn, pre-nickel and gold-plated	
Mechanical Data		
Degree of Protection	IP65/IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	11 to 30 V AC/DC	
Rated Current	4 A per outlet/12 A max. total	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	4 ports: 5 pieces, 8 ports: 10 pieces	





Wiring Diagram ASBS-R...



Wiring Diagram ASBS-R... LED

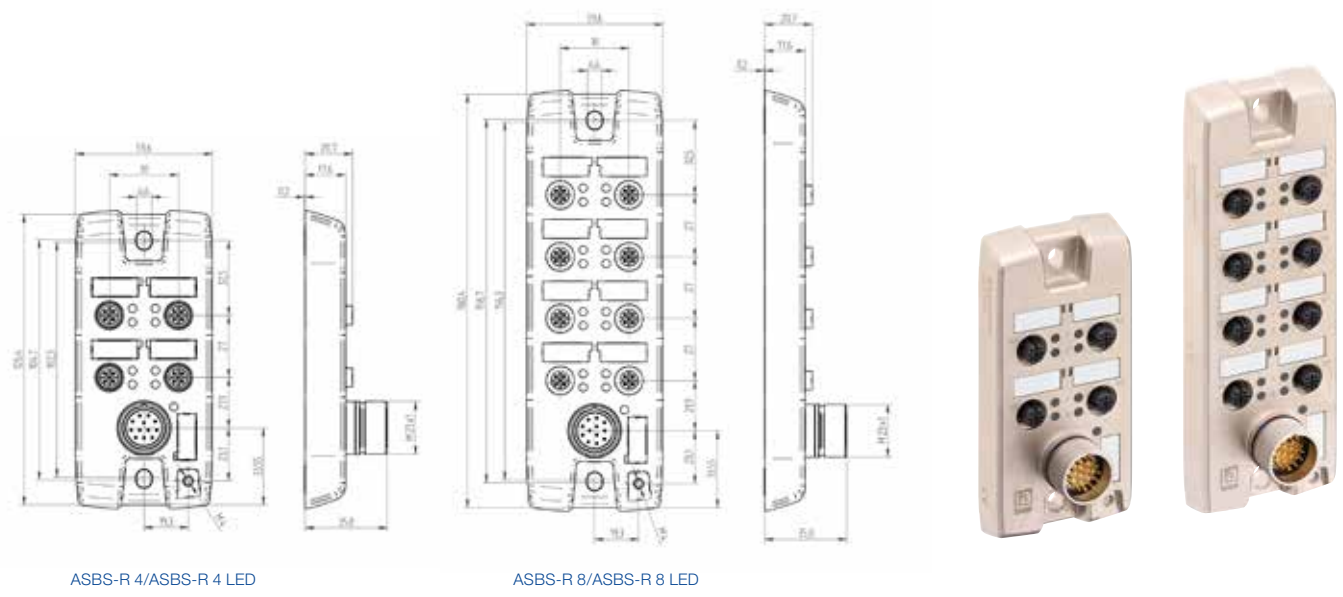


Pin Assignment

4 Ports		8 Ports	
 <p>1 = 11 (+) 2 = n.c. 3 = 9 (-) 4 = 1 (1) 5 = 12 (PE)</p>	 <p>1 = 11 (+) 2 = n.c. 3 = 9 (-) 4 = 1 (1) 5 = 12 (PE)</p>	 <p>1 = 11 (+) 2 = n.c. 3 = 9 (-) 4 = 1 (1) 5 = 12 (PE)</p>	 <p>1 = 11 (+) 2 = n.c. 3 = 9 (-) 4 = 1 (1) 5 = 12 (PE)</p>

Ordering Designation

Order No.	Ordering Designation	Performance
934761001	ASBS-R 4 5-4	4 ports
934763001	ASBS-R 8 5-4	8 ports
934761002	ASBS-R 4/LED 5-4	4 ports
934763002	ASBS-R 8/LED 5-4	8 ports



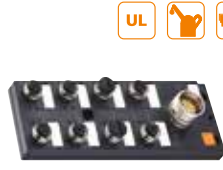


ASBS-R 4/ASBS-R 4 LED

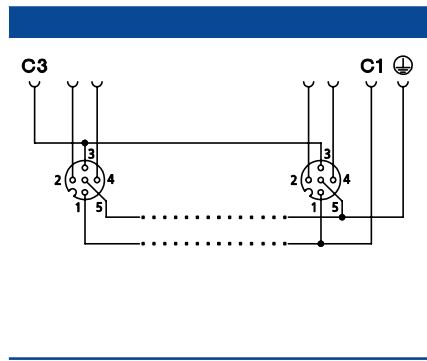
ASBS-R 8/ASBS-R 8 LED

Pluggable M12 Rugged Distribution Boxes







Technical Information

Product Description			
Type	ASBSV...	ASBSV... LED	ASBSVD 8/LED W5
			
Description	ASB-Classic pluggable actuator/sensor distribution box, 4, 6 and 8 ports, combined FIXCON®/M12 socket, 5-poles, 2 signals per socket, earth connection, M23 connection for the control cable, 19-poles	ASB-Classic pluggable actuator/sensor distribution box with LED operation and function indicators, 4, 6 and 8 ports, combined FIXCON®/M12 socket, 5-poles, 2 signals per socket, earth connection, M23 connection for the control cable, 19-poles	ASB-M pluggable actuator/sensor distribution box with LED operation and function indicators, 8 ports, with integrated electronic fuses with 500 mA for outputs, 100 mA for inputs and diagnostic display, combined FIXCON®/M12 socket, 5-poles, earth connection, M23 connection for the control cable, 19-poles
Technical Data			
Ambient Temperature	-15 °C to +80 °C		0 °C to +60 °C
Housing Material	TPU, self-extinguishing		PBT
Contact Insert	PA GF, self-extinguishing		PA
Contact	CuZn, pre-nickel and gold-plated M8, M12		
Mechanical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Electrical Data			
Volume Resistance	≤ 5 mΩ		
Rated Voltage	10 to 30 V AC/DC		
Rated Current	4 A per outlet/12 A max. total	4 A per outlet/10 A max. total	7.5 A max. total
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	10 pieces		

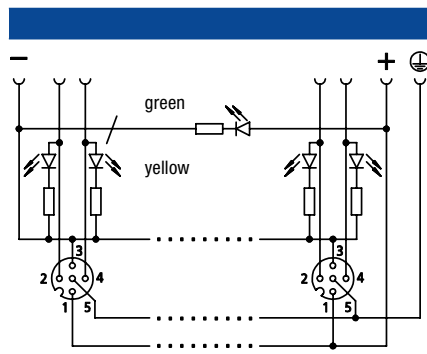
Wiring Diagram ASBSV...









Pin Assignment ASBSV...

4 Ports	6 Ports	8 Ports
 <ul style="list-style-type: none"> 1 = 19 (C1) 2 = 1 (7) 2 (4) 3 (8) 4 (14) 3 = 6 (C3) 4 = 1 (15)  <ul style="list-style-type: none"> 2 (5) 3 (16) 4 (3) 5 = 12 (PE) 	 <ul style="list-style-type: none"> 1 = 19 (C1) 2 = 1 (7) 2 (4) 3 (8) 4 (14) 5 (9) 6 (13) 3 = 6 (C3) 4 = 1 (15) 2 (5) 3 (16) 4 (3) 5 (17) 6 (2) 5 = 12 (PE) 	 <ul style="list-style-type: none"> 1 = 19 (C1) 2 = 1 (7) 2 (4) 3 (8) 4 (14) 5 (9) 6 (13) 7 (10) 8 (18) 3 = 6 (C3) 4 = 1 (15) 2 (5) 3 (16) 4 (3) 5 (17) 6 (2) 5 = 12 (PE) 


Wiring Diagram ASBSV... LED



Pin Assignment ASBSV... LED

4 Ports	6 Ports	8 Ports
 <ul style="list-style-type: none"> 1 = 19 (+) 2 = 1 (7) 2 (4) 3 (8) 4 (14) 3 = 6 (-) 4 = 1 (15) 2 (5) 3 (16) 4 (3) 5 = 12 (PE) 	 <ul style="list-style-type: none"> 1 = 19 (+) 2 = 1 (7) 2 (4) 3 (8) 4 (14) 5 (9) 6 (13) 3 = 6 (-) 4 = 1 (15) 2 (5) 3 (16) 4 (3) 5 (17) 6 (2) 5 = 12 (PE) 	 <ul style="list-style-type: none"> 1 = 19 (+) 2 = 1 (7) 2 (4) 3 (8) 4 (14) 5 (9) 6 (13) 7 (10) 8 (18) 3 = 6 (-) 4 = 1 (15) 2 (5) 3 (16) 4 (3) 5 (17) 6 (2) 5 = 12 (PE) 

Pin Assignment ASBSVD 8/LED W5

8 Ports			
	1 = +24 V (19)	Channel B	Channel A
	3 = 0 V (6)	2 = 1 (7)	4 = 1 (15)
	5 = 12 (PE)	2 (4)	2 (5)
		3 (8)	3 (16)
		4 (14)	4 (3)
		5 (9)	5 (17)
		6 (13)	6 (2)
		7 (10)	7 (11)
		DIA (18)	8 (1)

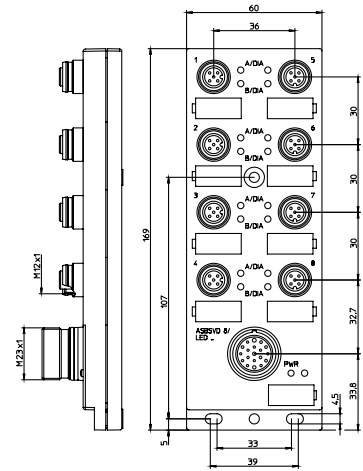
Diagnostic Indication ASBSVD 8/LED W5

LED	Indicator	Condition
1...8 A/B DIA	Yellow/white	Function
1...8 A/B DIA	Red	Periphery error*
PWR	Green	System power supply

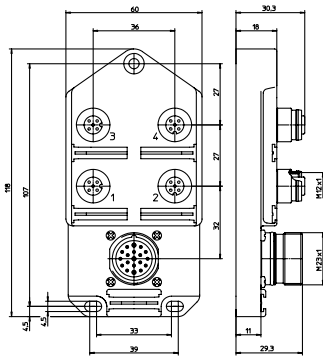
* The peripheral error is sent as a collective message via the supply line to the control system. This message can be evaluated by the control system and issued as an error message. Therefore there is no channel B available for socket 8.

Ordering Designation

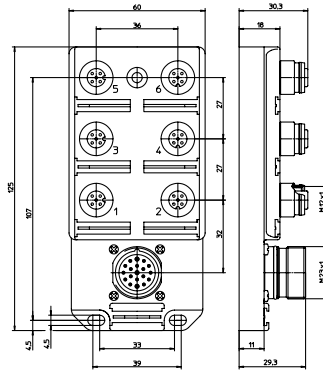
Order No.	Ordering Designation	Performance
11133	ASBSV 4 5	4 ports
11135	ASBSV 6 5	6 ports
11137	ASBSV 8 5	8 ports
11134	ASBSV 4/LED 5	4 ports
11136	ASBSV 6/LED 5	6 ports
11138	ASBSV 8/LED 5	8 ports
75653	ASBSVD 8/LED W5	8 ports



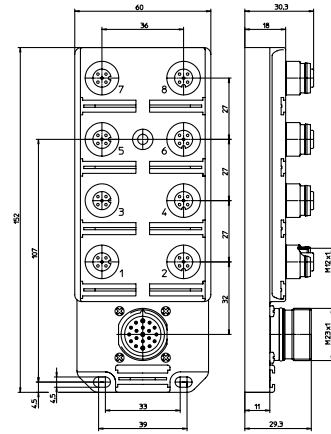
ASBSVD 8/LED W5



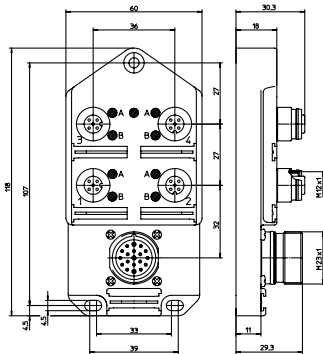
ASBSV 4



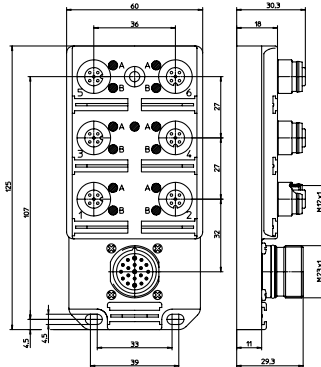
ASBSV 6



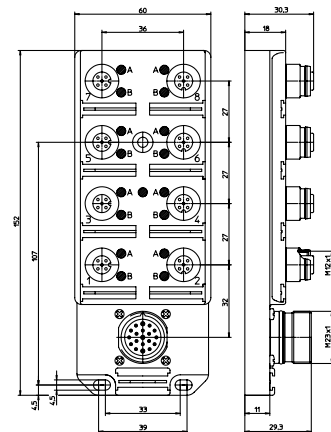
ASBSV 8



ASBSV 4/LED







ASBSV 6/LED



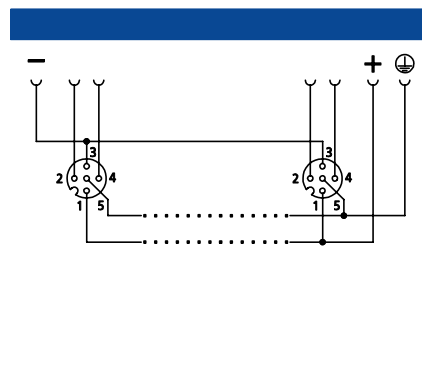
ASBSV 8/LED

Pluggable M12 Rugged Distribution Boxes

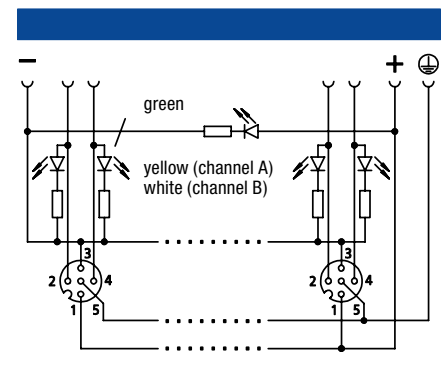
Technical Information

Product Description		
Type	ASBSV-R	ASBSV-R... LED
	 	 
Description	ASB-R pluggable actuator/sensor distributor, 4 and 8 ports, M12 socket, 5-poles, 2 signals per socket, earth connection, M23 connection for the control cable, 19-poles	ASB-R pluggable actuator/sensor distributor, 4 and 8 ports, M12 socket, 5-poles, with LED operating and function display, 2 signals per socket, earth connection, M23 connection for the control cable, 19-poles
Technical Data		
Ambient Temperature	-40 °C to +80 °C (for drag-chain applications -25 °C to +60 °C), UL max. +60 °C	
Housing Material	Made of die-cast zinc; potting compound: 2K PUR	
Contact Insert	M12: PA, potted; M23: PBT	
Contact	CuZn, pre-nickel and gold-plated	
Mechanical Data		
Degree of Protection	IP65/IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	11 to 30 V AC/DC	
Rated Current	4 A per outlet/12 A max. total	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	4 ports: 5 pieces, 8 ports: 10 pieces	





Wiring Diagram ASBSV-R...



Wiring Diagram ASBSV-R... LED

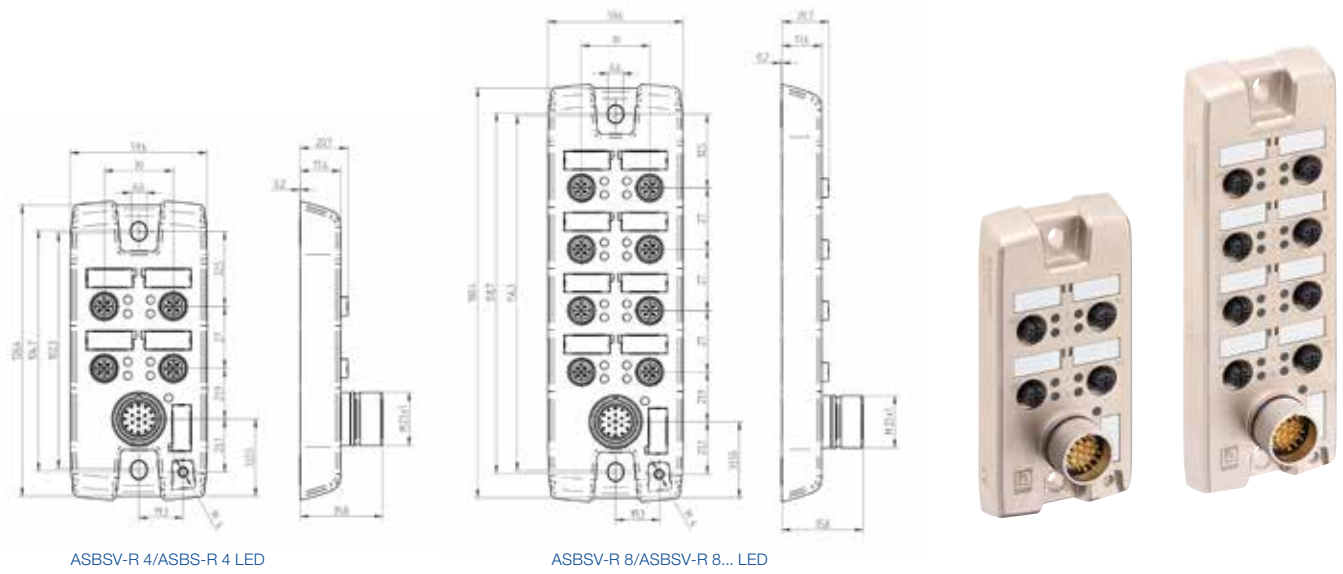


Pin Assignment

4 Ports		8 Ports			
 <p>1 = 19 (+) 3 = 6 (-) 5 = 12 (PE)</p>	<p>Channel B</p> <p>2 = 1 (7) 2 (4) 3 (8) 4 (14)</p>	<p>Channel A</p> <p>4 = 1 (15) 2 (5) 3 (16) 4 (3)</p>	 <p>1 = 19 (+) 3 = 6 (-) 5 = 12 (PE)</p>	<p>Channel B</p> <p>2 = 1 (7) 2 (4) 3 (8) 4 (14) 5 (9) 6 (13) 7 (10) 8 (18)</p>	<p>Channel A</p> <p>4 = 1 (15) 2 (5) 3 (16) 4 (3) 5 (17) 6 (2) 7 (11) 8 (1)</p>
					





Ordering Designation

Order No.	Ordering Designation	Performance
934767001	ASBSV-R 4 5	4 ports
934769001	ASBSV-R 8 5	8 ports
934767002	ASBSV-R 4/LED 5	4 ports
934769002	ASBSV-R 8/LED 5	8 ports

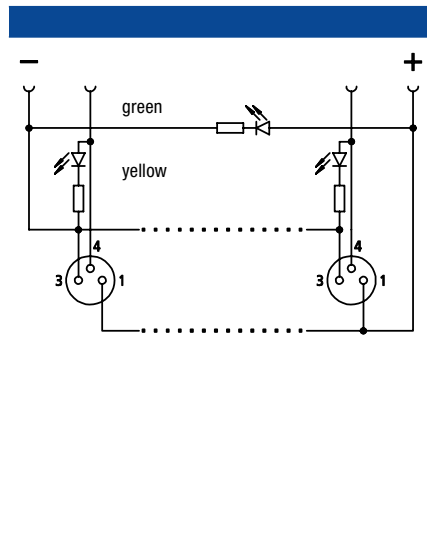


Wired M8 Rugged Distribution Boxes






Technical Information

Product Description		
Type	ASBM... LED	SB 8/LED
	 	 
Description	ASB-S wired miniature actuator/sensor distribution box with LED operation and function indicators, 4, 6, 8, 10 and 12 ports, M8 socket, 3-poles, 1 signal per socket, with integrated control cable, PUR jacket, halogen-free, black	ASB-Classic wired miniature actuator/sensor distribution box with LED operation and function indicators, 8 ports, M8 socket, 3-poles, 1 signal per socket, with integrated control cable, PUR jacket, halogen-free, black
Technical Data		
Ambient Temperature	-25 °C to +70 °C	-15 °C to +80 °C
Housing Material	PBT	TPU
Contact Insert	PA, self-extinguishing	
Contact	CuZn, pre-nickel and gold-plated M8, M12	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	10 to 30 V AC/DC	
Rated Current	1.5 A per outlet/1.5 A max. total	2 A per outlet/2 A max. total
Included in Delivery		
M8 Dust Covers	2 pieces	
Attachable Labels	4 ports: 5 pieces 6 to 8 ports: 10 pieces 10 to 12 ports: 15 pieces	1 piece


Wiring Diagram ASBM... LED



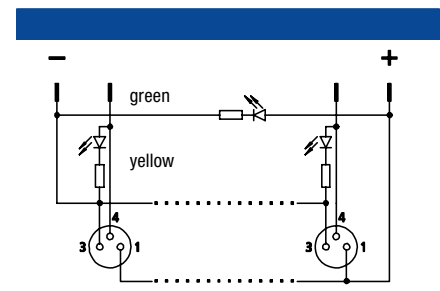
Pin Assignment ASBM... LED

4 Ports	6 Ports	8 Ports
 <ul style="list-style-type: none"> 1 = brown (+) 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) 	 <ul style="list-style-type: none"> 1 = brown (+) 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) 	 <ul style="list-style-type: none"> 1 = brown (+) 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8)
10 Ports	12 Ports	
 <ul style="list-style-type: none"> 1 = brown (+) 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8) grey/pink (9) red/blue (10) 	 <ul style="list-style-type: none"> 1 = brown (+) 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8) grey/pink (9) red/blue (10) white/green (11) brown/green (12) 	

Pin Assignment SB 8/LED

8 Ports
 <ul style="list-style-type: none"> 1 = brown (+) 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8)

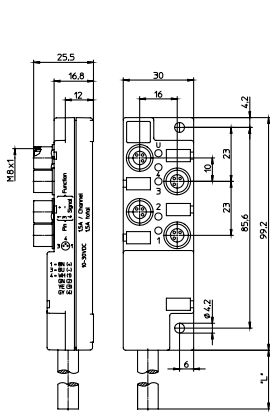
Wiring Diagram SB 8/LED



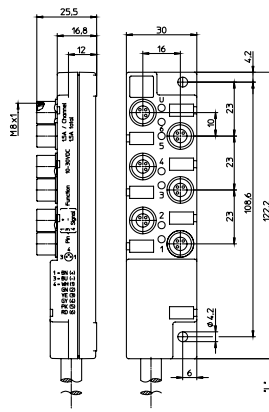
Ordering Designation

Order No.	Ordering Designation	Performance
65349	ASBM 4/LED 3-343/5 M	4 ports
65350	ASBM 4/LED 3-343/10 M	4 ports
65351	ASBM 4/LED 3-343/15 M	4 ports
65352	ASBM 6/LED 3-344/5 M	6 ports
65353	ASBM 6/LED 3-344/10 M	6 ports
65354	ASBM 6/LED 3-344/15 M	6 ports
65355	ASBM 8/LED 3-345/5 M	8 ports
65356	ASBM 8/LED 3-345/10 M	8 ports
65357	ASBM 8/LED 3-345/15 M	8 ports
65358	ASBM 10/LED 3-346/5 M	10 ports
65359	ASBM 10/LED 3-346/10 M	10 ports
65360	ASBM 10/LED 3-346/15 M	10 ports
65361	ASBM 12/LED 3-347/5 M	12 ports
65362	ASBM 12/LED 3-347/10 M	12 ports
65363	ASBM 12/LED 3-347/15 M	12 ports
60636	SB 8/LED 3-333/10 M	8 ports
60637	SB 8/LED 3-333/5 M	8 ports

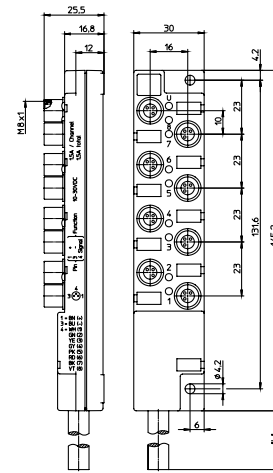
Standard lengths ASBM: 5, 10 and 15 meter. • Standard lengths SB: 5 and 10 meter.
Other cable lengths or cable specifications on request.



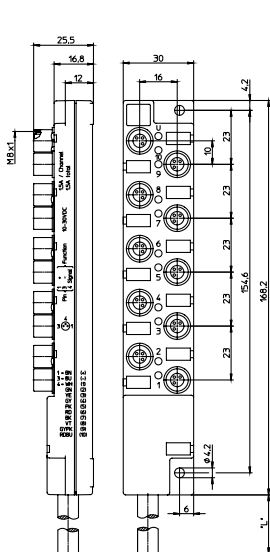
ASBM 4/LED



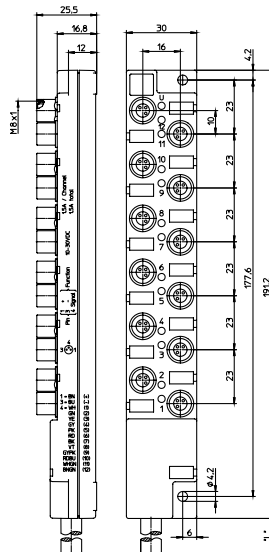
ASBM 6/LED



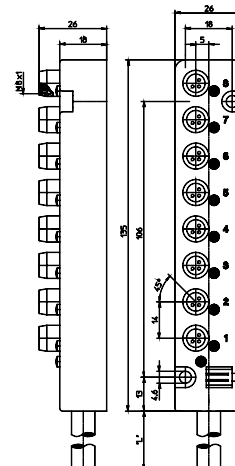
ASBM 8/LED



ASBM 10/LED



ASBM 12/LED




SB 8/LED

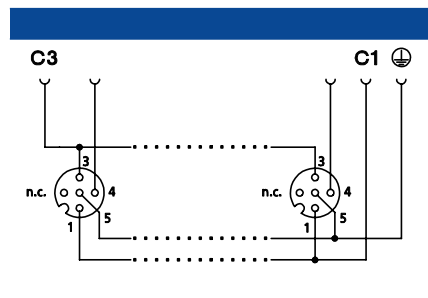
The application of these products in harsh environments should always be checked before use.
Technical modifications reserved.

Wired M12 Rugged Distribution Boxes




Technical Information

Product Description		
Type	ASB...	ASB... LED
	 	 
Description	ASB-Classic wired actuator/sensor distribution box, 4, 6 and 8 ports, combined FIXCON®/M12 socket, 4-poles, 1 signal per socket, no LED, earth connection, with integrated control cable, PUR jacket, halogen-free, black	ASB-Classic wired actuator/sensor distribution box with LED operation and function indicators, 4, 6 and 8 ports, combined FIXCON®/M12 socket, 4-poles, 1 signal per socket, earth connection, with integrated control cable, PUR jacket, halogen-free, black
Technical Data		
Ambient Temperature	-15 °C to +80 °C	
Housing Material	TPU	
Contact Insert	PA GF, self-extinguishing	
Contact	CuZn, pre-nickelated and gold-plated M8, M12	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	10 to 30 V AC/DC	
Rated Current	4 A per outlet/12 A max. total	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

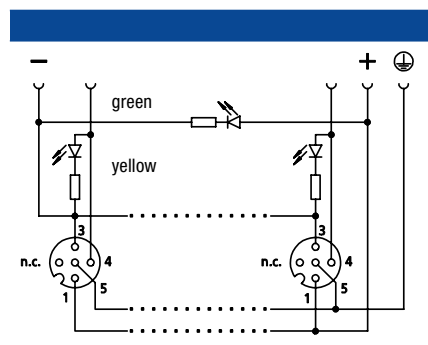
Wiring Diagram ASB...






Pin Assignment ASB...

4 Ports	6 Ports	8 Ports
 <ul style="list-style-type: none"> 1 = brown (C1) 2 = n.c. 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (C1) 2 = n.c. 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (C1) 2 = n.c. 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8) 5 = green/yellow (PE)

Wiring Diagram ASB... LED



Pin Assignment ASB... LED

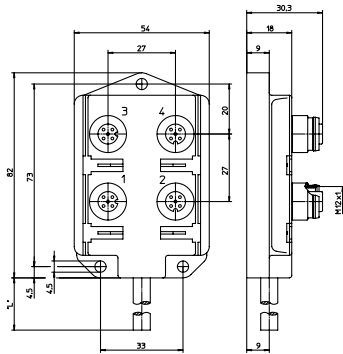
4 Ports	6 Ports	8 Ports
 <ul style="list-style-type: none"> 1 = brown (+) 2 = n.c. 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (+) 2 = n.c. 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (+) 2 = n.c. 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8) 5 = green/yellow (PE)

Ordering Designation

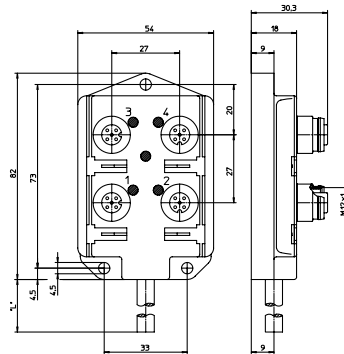
Order No.	Ordering Designation	Performance
60640	ASB 4 5-4-328/5 M	4 ports
60555	ASB 4 5-4-328/10 M	4 ports
60583	ASB 6 5-4-330/5 M	6 ports
60580	ASB 6 5-4-330/10 M	6 ports
60585	ASB 8 5-4-331/5 M	8 ports
60584	ASB 8 5-4-331/10 M	8 ports

Order No.	Ordering Designation	Performance
60644	ASB 4/LED 5-4-328/5 M	4 ports
60643	ASB 4/LED 5-4-328/10 M	4 ports
60600	ASB 6/LED 5-4-330/5 M	6 ports
60656	ASB 6/LED 5-4-330/10 M	6 ports
60603	ASB 8/LED 5-4-331/5 M	8 ports
60602	ASB 8/LED 5-4-331/10 M	8 ports

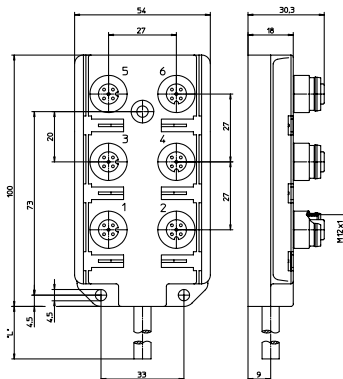
Standard lengths: 5 and 10 meter.
Other cable lengths or cable specifications on request.



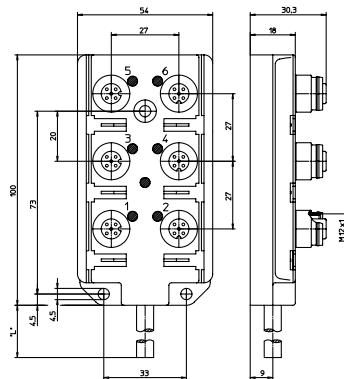
ASB 4



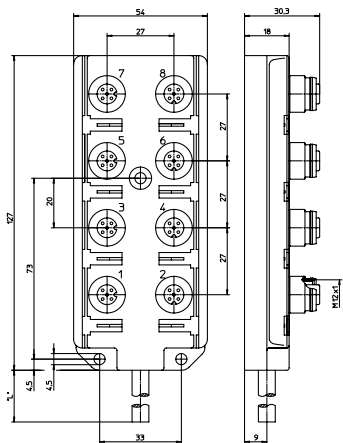
ASB 4/LED



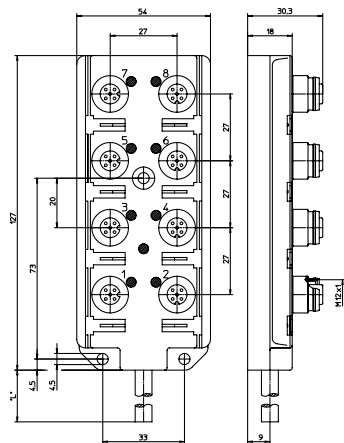
ASB 6



ASB 6/LED



ASB 8







ASB 8/LED



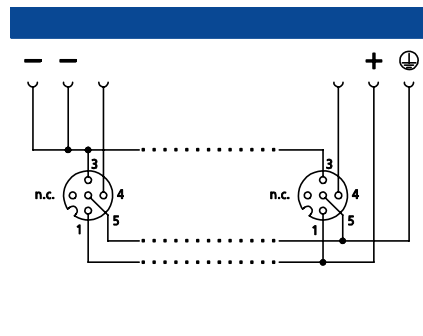
The application of these products in harsh environments should always be checked before use.
Technical modifications reserved.

Wired M12 Rugged Distribution Boxes

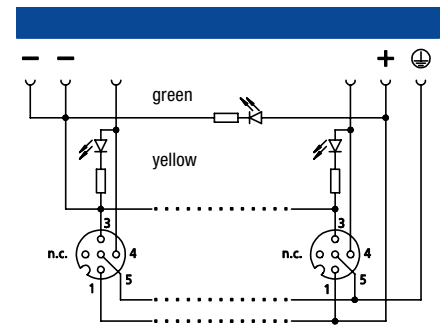
Technical Information

Product Description		
Type	ASB-R	ASB-R... LED
	 	 
Description	ASB-R wired actuator/sensor distributor, 4 and 8 ports, M12 socket, 4-poles, 1 signal per socket, earth connection, with integrated control cable, PUR jacket, halogen-free, black	ASB-R wired actuator/sensor distributor, 4 and 8 ports, M12 socket, 4-poles, with LED operating and function display, 1 signal per socket, earth connection, with integrated control cable, PUR jacket, halogen-free, black
Technical Data		
Ambient Temperature	-40 °C to +80 °C (for drag-chain applications -25 °C to +60 °C), UL max. +60 °C	
Housing Material	Made of die-cast zinc; potting compound: 2K PUR	
Contact Insert	M12: PA, potted; M23: PBT	
Contact	CuZn, pre-nickeled and gold-plated	
Mechanical Data		
Degree of Protection	IP65/IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	11 to 30 V AC/DC	
Rated Current	4 A per outlet/12 A max. total	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	4 ports: 5 pieces, 8 ports: 10 pieces	



Wiring Diagram ASB-R...



Wiring Diagram ASB-R... LED



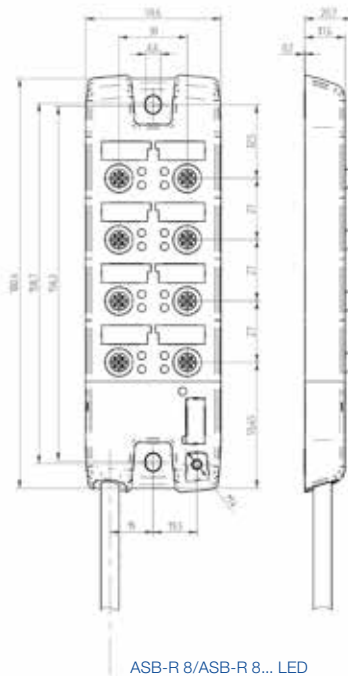
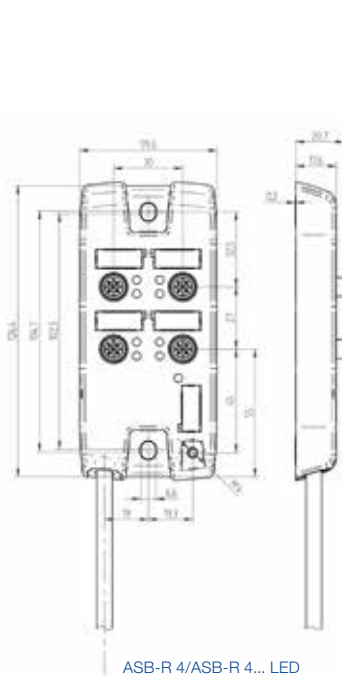
Pin Assignment

4 Ports	8 Ports	
 <ul style="list-style-type: none"> 1 = brown (+) 2 = n.c. 3 = blue (-) 4 = white (1) green (2) yellow (3) grey (4) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (+) 2 = n.c. 3 = blue (-) 	<ul style="list-style-type: none"> 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8) 5 = green/yellow (PE)

Ordering Designation





Order No.	Ordering Designation	Performance
934758001	ASB-R 4 5-4-328/5 M	4 ports
934758002	ASB-R 4 5-4-328/10 M	4 ports
934760001	ASB-R 8 5-4-331/5 M	8 ports
934760002	ASB-R 8 5-4-331/10 M	8 ports
934758003	ASB-R 4/LED 5-4-328/5 M	4 ports
934758004	ASB-R 4/LED 5-4-328/10 M	4 ports
934760003	ASB-R 8/LED 5-4-331/5 M	8 ports
934760004	ASB-R 8/LED 5-4-331/10 M	8 ports

Standard lengths: 5 and 10 meter.
Other cable lengths or cable specifications on request.

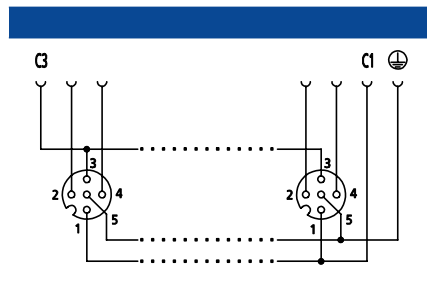


Wired M12 Rugged Distribution Boxes




Technical Information

Product Description		
Type	ASBV...	ASBV... LED
	 	 
Description	ASB-Classic wired actuator/sensor distribution box, 4, 6 and 8 ports, no LED, combined FIXCON®/M12 socket, 5-poles, 2 signals per socket, earth connection, with integrated control cable, PUR jacket, halogen-free, black	ASB-Classic wired actuator/sensor distribution box, 4, 6 and 8 ports with LED operation and function indicators, combined FIXCON®/M12 socket, 5-poles, 2 signals per socket, earth connection, with integrated control cable, PUR jacket, halogen-free, black
Technical Data		
Ambient Temperature	-15 °C to +80 °C	
Housing Material	TPU	
Contact Insert	PA GF, self-extinguishing	
Contact	CuZn, pre-nickelated and gold-plated M8, M12	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	10 to 30 V AC/DC	
Rated Current	4 A per outlet/12 A max. total	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	10 pieces	

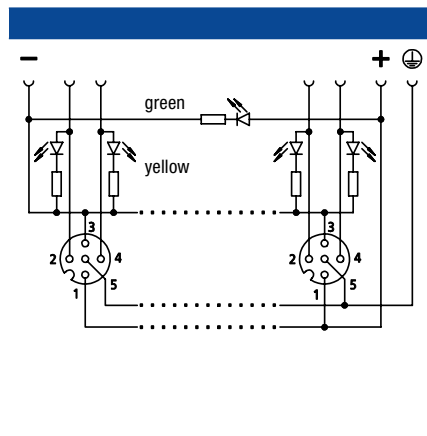
Wiring Diagram ASBV...






Pin Assignment ASBV...

4 Ports	6 Ports	8 Ports
 <ul style="list-style-type: none"> 1 = brown (C1) 2 = n.c. 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (C1) 2 = n.c. 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (C1) 2 = n.c. 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8) 5 = green/yellow (PE)

Wiring Diagram ASBV... LED



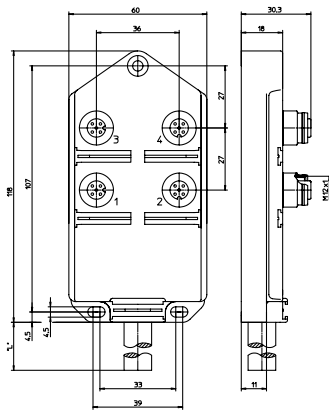
Pin Assignment ASBV... LED

4 Ports	6 Ports	8 Ports
 <ul style="list-style-type: none"> 1 = brown (C1) 2 = grey/pink (1) red/blue (2) white/green (3) brown/green (4) 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (C1) 2 = grey/pink (1) red/blue (2) white/green (3) brown/green (4) white/yellow (5) yellow/brown (6) 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (C1) 2 = grey/pink (1) red/blue (2) white/green (3) brown/green (4) white/yellow (5) yellow/brown (6) white/grey (7) grey/brown (8) 3 = blue (C3) 4 = white (1) green (2) yellow (3) grey (4) pink (5) red (6) black (7) violet (8) 5 = green/yellow (PE)

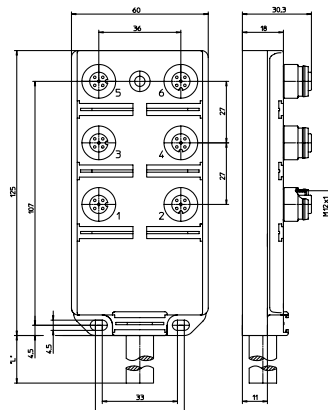
Ordering Designation

Order No.	Ordering Designation	Performance
60605	ASBV 4 5-256/5 M	4 ports
60604	ASBV 4 5-256/10 M	4 ports
60669	ASBV 6 5-332/5 M	6 ports
60666	ASBV 6 5-332/10 M	6 ports
60671	ASBV 8 5-242/5 M	8 ports
60670	ASBV 8 5-242/10 M	8 ports
11147	ASBV 4/LED 5-256/10 M	4 ports
11145	ASBV 4/LED 5-256/10 M	4 ports
11146	ASBV 4/LED 5-256/15 M	4 ports
60674	ASBV 6/LED 5-332/5 M	6 ports
60672	ASBV 6/LED 5-332/10 M	6 ports
60673	ASBV 6/LED 5-332/15 M	6 ports
11167	ASBV 8/LED 5-242/5 M	8 ports
11165	ASBV 8/LED 5-242/10 M	8 ports
11166	ASBV 8/LED 5-242/15 M	8 ports

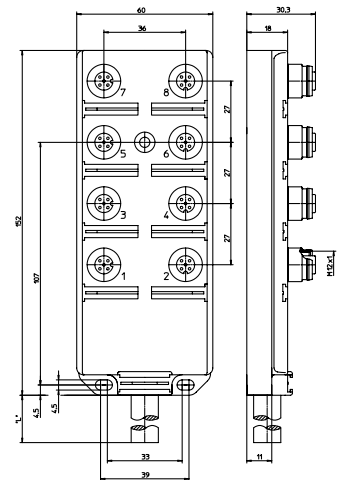
Standard lengths ASBV: 5 and 10 meter. • Standard lengths ASBV...LED: 5, 10 and 15 meter.
Other cable lengths or cable specifications on request.



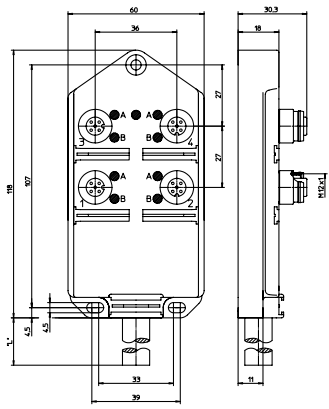
ASBV 4



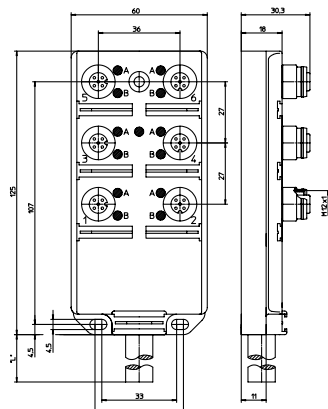
ASBV 6



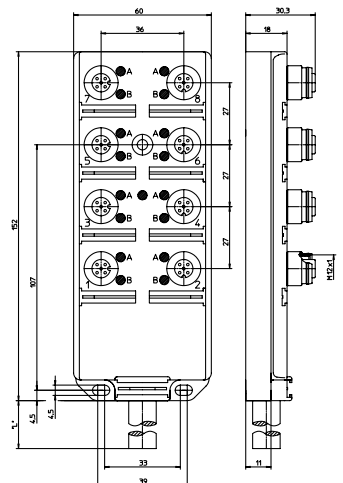
ASBV 8



ASBV 4/LED



ASBV 6/LED







ASBV 8/LED

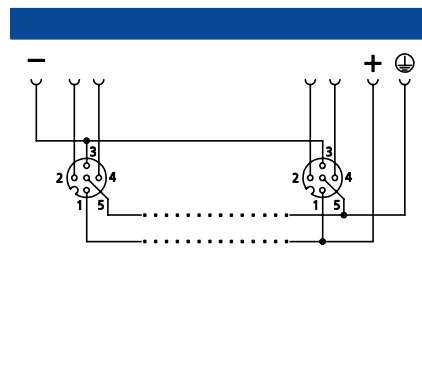
The application of these products in harsh environments should always be checked before use.
Technical modifications reserved.

Wired M12 Rugged Distribution Boxes

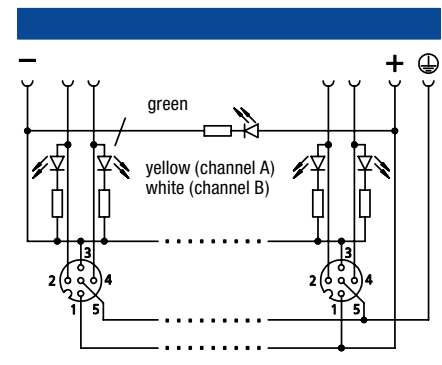
Technical Information

Product Description		
Type	ASBV-R	ASBV-R... LED
	 	 
Description	ASBV-R wired actuator/sensor distributor, 4 and 8 ports, M12 socket, 5-poles, 2 signals per socket, earth connection, with integrated control cable, PUR jacket, halogen-free, black	ASBV-R wired actuator/sensor distributor, 4 and 8 ports, M12 socket, 5-poles, with LED operating and function display, 2 signals per socket, earth connection, with integrated control cable, PUR jacket, halogen-free, black
Technical Data		
Ambient Temperature	-40 °C to +80 °C (for drag-chain applications -25 °C to +60 °C), UL max. +60 °C	
Housing Material	Made of die-cast zinc; potting compound: 2K PUR	
Contact Insert	M12: PA, potted; M23: PBT	
Contact	CuZn, pre-nickeled and gold-plated	
Mechanical Data		
Degree of Protection	IP65/IP67 (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	11 to 30 V AC/DC	
Rated Current	4 A per outlet/12 A max. total	
Included in Delivery		
M12 Dust Covers	2 pieces	
Attachable Labels	4 ports: 5 pieces, 8 ports: 10 pieces	



Wiring Diagram ASBV-R...



Wiring Diagram ASBV-R... LED



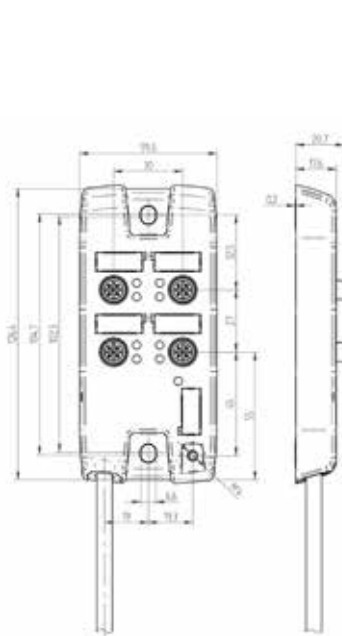
Pin Assignment

4 Ports	8 Ports	
 <ul style="list-style-type: none"> 1 = brown (+) 2 = grey/pink (1) <li style="padding-left: 20px;">red/blue (2) <li style="padding-left: 20px;">white/green (3) <li style="padding-left: 20px;">brown/green (4) 3 = blue (-) 4 = white (1) <li style="padding-left: 20px;">green (2) <li style="padding-left: 20px;">yellow (3) <li style="padding-left: 20px;">grey (4) 5 = green/yellow (PE) 	 <ul style="list-style-type: none"> 1 = brown (+) 2 = grey/pink (1) <li style="padding-left: 20px;">red/blue (2) <li style="padding-left: 20px;">white/green (3) <li style="padding-left: 20px;">brown/green (4) <li style="padding-left: 20px;">white/yellow (5) <li style="padding-left: 20px;">yellow/brown (6) <li style="padding-left: 20px;">white/grey (7) <li style="padding-left: 20px;">grey/brown (8) 3 = blue (-) 	<ul style="list-style-type: none"> 4 = white (1) <li style="padding-left: 20px;">green (2) <li style="padding-left: 20px;">yellow (3) <li style="padding-left: 20px;">grey (4) <li style="padding-left: 20px;">pink (5) <li style="padding-left: 20px;">red (6) <li style="padding-left: 20px;">black (7) <li style="padding-left: 20px;">violet (8) 5 = green/yellow (PE)

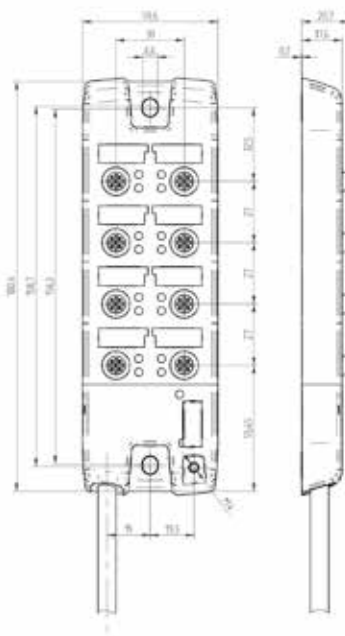
Ordering Designation

Order No.	Ordering Designation	Performance
934764001	ASBV-R 4 5-256/5 M	4 ports
934764002	ASBV-R 4 5-256/10 M	4 ports
934765001	ASBV-R 8 5-242/5 M	8 ports
934765002	ASBV-R 8 5-242/10 M	8 ports
934764003	ASBV-R 4/LED 5-256/5 M	4 ports
934764004	ASBV-R 4/LED 5-256/10 M	4 ports
934765003	ASBV-R 8/LED 5-242/5 M	8 ports
934765004	ASBV-R 8/LED 5-242/10 M	8 ports

Standard lengths: 5 and 10 meter.
Other cable lengths or cable specifications on request.



ASBV-R 4/ASBV-R 4... LED






ASBV-R 8/ASBV-R 8... LED



Wired M12 Rugged Distribution Boxes

Technical Information

Product Description			
Type	RSWU 12-SB 8/LED 3-333/5 M	RSWU 12-ASB 8/LED 5-4-331/5 M	ASB 8/LED 5-4/1.5 M
			
Description	ASB-Classic wired miniature sensor distribution box, 8 ports, with LED operating and function display, M8 socket, 3-poles, 1 signal per socket, integrated control cable with M23 male right angle connector, 12-poles, PUR jacket, halogen-free, black	ASB-Classic wired actuator/sensor distribution box, 8 ports, with LED operating and function display, combined FIXCON®/M12 socket, 4-poles, 1 signal per socket, earth connection, integrated control cable, 5 m PUR jacket, halogen-free, black, earth connection, integrated control cable with M23 male right angle connector, 12-poles	ASB-Classic wired actuator/sensor distribution box with LED operation and function indicators and single wire connection on the rear, 8 ports, combined FIXCON®/M12 socket, 4-poles, 1 signal per socket, earth connection
Order No.	60724	60720	11116
Technical Data			
Ambient Temperature	-15 °C to +80 °C		
Housing Material	TPU		
Contact Insert	PA GF, self-extinguishing		
Contact	CuZn, pre-nickel and gold-plated M8, M12		
Mechanical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Electrical Data			
Volume Resistance	≤ 5 mΩ		
Rated Voltage	10 to 30 V AC/DC		
Rated Current	4 A per outlet/8 A max. total	2 A per outlet/2 A max. total	4 A per outlet/12 A max. total
Included in Delivery			
M12 Dust Covers	2 pieces		
Attachable Labels	10 pieces		

Pin Assignment RSWU

12-poles	
1 = white	7 = white/green
2 = green	8 = brown/green
3 = yellow	9 = blue
4 = grey	10 = blue
5 = grey/pink	11 = brown
6 = red/blue	12 = yellow/green

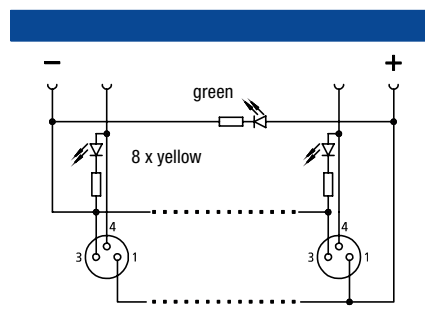
Pin Assignment 12-SB 8/LED

8 Ports	
1 = brown (+)	4 = white (1)
3 = blue (-)	green (2)
	yellow (3)
	grey (4)
	pink (5)
	red (6)
	black (7)
	violet (8)

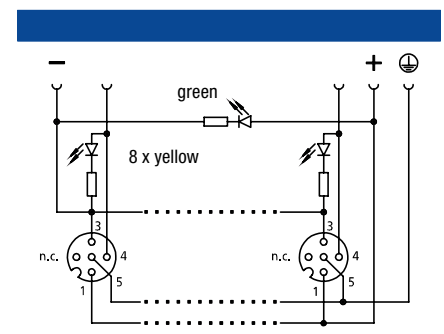
Pin Assignment 12-ASB 8/LED

8 Ports	
1 = brown (+)	4 = white (1)
2 = n.c.	green (2)
3 = blue (-)	yellow (3)
	grey (4)
	pink (5)
	red (6)
	black (7)
	violet (8)
	5 = green/yellow (PE)

Wiring Diagram 12-SB 8/LED



Wiring Diagram 12-ASB 8/LED



ASB 8/LED 5-4/1.5 M

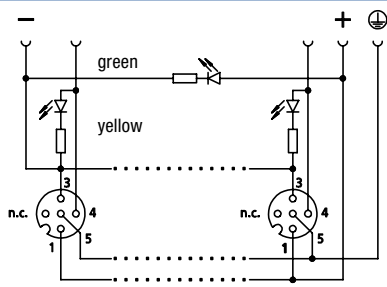
8 Ports



- 1 = brown (+)
- 2 = n.c.
- 3 = blue (-)
- 4 = white (1)
green (2)
yellow (3)
grey (4)
pink (5)
red (6)
black (7)
violet (8)
- 5 = green/yellow (PE)

Wiring Diagram

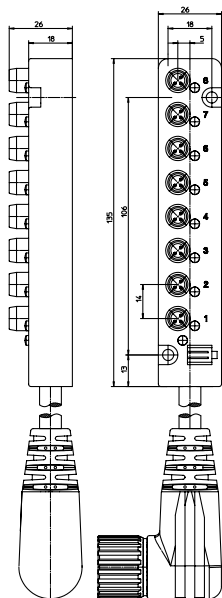
ASB 8/LED 5-4/1.5 M



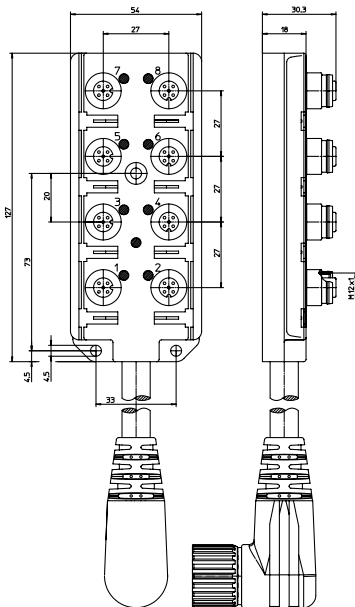
Ordering Designation

Ordering Designation	Performance
ASB 8/LED 5-4/1.5 M	8 ports
RSWU 12-SB 8/LED 3-333/5 M	8 ports
RSWU 12-ASB 8/LED 5-4-331/5 M	8 ports

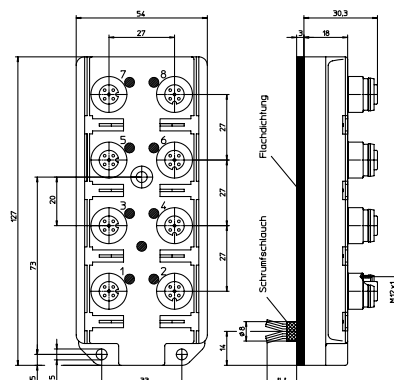
Other cable lengths or cable specifications on request.



RSWU 12-SB 8/LED 3-333




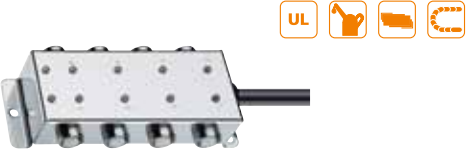
RSWU 12-ASB 8/LED 5-4-331



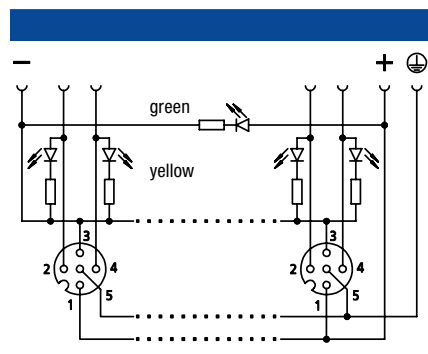
ASB 8/LED

Wired M12 Rugged Distribution Boxes – Stainless Steel

Technical Information

Product Description		
Type	ASNBV 8/LED	ASNBL 8/LED
		
Description	ASB-N wired actuator/sensor distribution box, stainless steel, 8 ports, with LED operation and function indicators, M12 socket, 5-poles, 2 signals per socket, integrated control cable	ASB-N wired actuator/sensor distribution box, stainless steel, 8 ports, with lateral ports, with LED operation and function indicators, M12 socket, 5-poles, 2 signals per socket, integrated control cable, PVC, black
Note	Especially designed for food and beverage equipment.	
Technical Data		
Ambient Temperature	-25 °C to +70°C	
Housing Material	Stainless steel	
Contact Insert	PVC	
Contact	CuZn, pre-nickeled and gold-plated	
Mechanical Data		
Degree of Protection	IP67/IP69K (only when mated to associated counterparts)	
Electrical Data		
Volume Resistance	≤ 5 mΩ	
Rated Voltage	10 to 30 V AC/DC	
Rated Current	4 A per outlet/12 A max. total	
Included in Delivery		
M12 Dust Covers	4 pieces	

Wiring Diagram ASNBV 8/LED



Pin Assignment ASNBV 8/LED


8 Ports



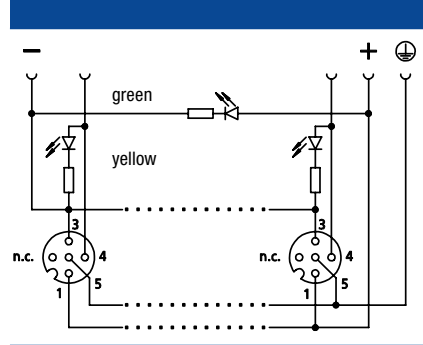
- | | |
|-------------------|-----------------------|
| 1 = brown (+) | 3 = blue (-) |
| 2 = grey/pink (1) | 4 = white (1) |
| red/blue (2) | green (2) |
| white/green (3) | yellow (3) |
| brown/green (4) | grey (4) |
| white/yellow (5) | pink (5) |
| yellow/brown (6) | red (6) |
| white/grey (7) | black (7) |
| grey/brown (8) | violet (8) |
| | 5 = green/yellow (PE) |

Pin Assignment ASNBL 8/LED

8 Ports

- 
- 1 = brown (+)
 - 2 = n.c.
 - 3 = blue (-)
 - 4 = white (1)
 - green (2)
 - yellow (3)
 - grey (4)
 - pink (5)
 - red (6)
 - black (7)
 - violet (8)
 - 5 = green/yellow (PE)

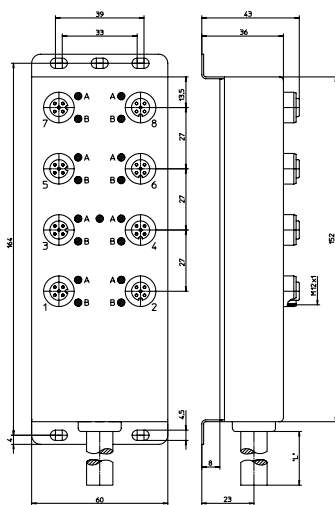
Wiring Diagram ASNBL 8/LED



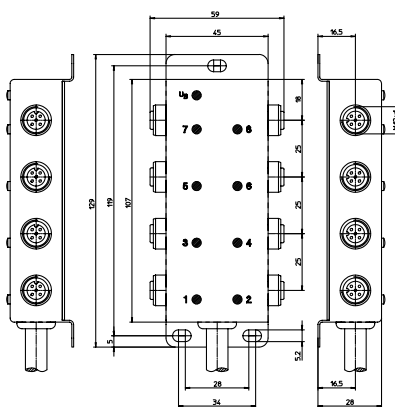
Ordering Designation

Order No.	Ordering Designation	Performance
38552	ASNBV 8/LED 5-278/5 M	8 ports
30608	ASNBV 8/LED 5-278/10 M	8 ports
38551	ASNBV 8/LED 5-278/15 M	8 ports
58453	ASNBL 8/LED 5-4-320/5 M	8 ports
58459	ASNBL 8/LED 5-4-320/10 M	8 ports
58460	ASNBL 8/LED 5-4-320/15 M	8 ports

Standard lengths: 5, 10 and 15 meter.
Other cable lengths or cable specifications on request.



ASNBV 8/LED



ASNBL 8/LED





Connection and Data Cordsets



Be certain. Belden.

Safe and Convenient Wiring

Cordsets for actuators, sensors, distribution modules, and fieldbus technology are preassembled with connectors at both ends. The connectors with firmly overmolded cables are used for connection between sensors/actuators and a passive or fieldbus modules.

Product Features

- Through to the wide range of special cables, the products are ideal for use in many areas of automation technology.
- The range includes actuator/sensor connectors, straight or angled, in thread sizes M12, M8, and M23, as well as connection with valve connectors (types A, B, and C).
- Data and power supply cables in thread sizes 7/8", M12, and M23, plus RJ45 and DSUB for Profibus, DeviceNet, CANopen, AS-Interface, Ethernet/IP, and PROFINET (A, B, D, U, and X-coding).
- Double-ended overmolded cordsets offer especially good protection against moisture and dirt – all cordsets meet the criteria for IP67 protection as a minimum.

Benefits

- High network availability thanks to robust connectors with higher mechanical and chemical resistance capability
- Ready-for-connection, standardized M12 connector technology allows for quick connection, increasing productivity
- Time and cost savings through simplified installations and reduced maintenance times

Applications

Sensor and actuator applications in automation systems of machine and plant, in transport, renewable energy and building automation.

Among others, connection of:



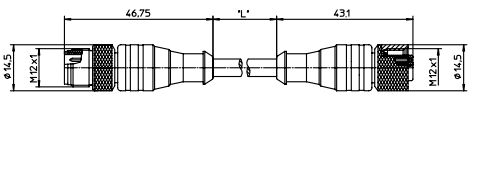
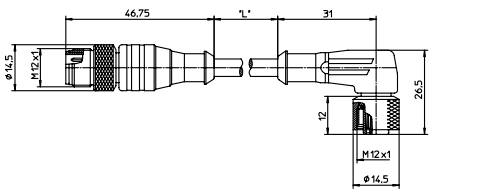
- Inductive/capacitive proximity switches
- Light guards
- Rotary encoders/position encoders
- Valve clusters
- Servomotors

- Communications interface between I/O modules and field bus/network

Food processing machines especially, as well as equipment in the chemicals and pharmaceuticals industry, place high demands on cordsets. Special products are available for these applications, with IP67, IP68, and IP69K protection and UL and ECOLAB certification.



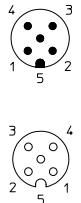


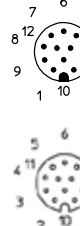
Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M12 Female Connectors, Standard

Technical Information



















Product Description		
Order Designation	RST-RKT	RST-RKWT
		
Description	Cordset for actuators and sensors, M12 male with self-locking screw coupling, straight, and M12 female, with self-locking screw coupling, straight, 3 to 12-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, and M12 female, with self-locking screw coupling, angled, 3 to 12-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU (translucent)	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 and 4-pin 230 V AC/DC, 5-pin 50 V AC/60 V DC, 6-pin, 8-pin and 12-pin 30 V AC/DC	
Rated Current	3 to 5-pin 4 A, 6 and 8-pin 2 A, 12-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin	4-pin	5-pin	6-pin
 <p>1 = brown 2 = n.c. 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow</p>	 <p>1 = white 2 = green 3 = yellow 4 = gray 5 = brown 6 = n.c. 7 = blue 8 = n.c.</p>
8-pin	12-pin		
 <p>1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = shield</p>	 <p>1 = brown 2 = blue 3 = white 4 = green 5 = pink 6 = yellow 7 = black 8 = gray 9 = red 10 = violet 11 = gray/pink 12 = red/blue</p>		



























Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
40185	RST 3-RKT 4-3-224/0.3 M	3	PUR, halogen-free, black	
40186	RST 3-RKT 4-3-224/0.6 M	3	PUR, halogen-free, black	
40187	RST 3-RKT 4-3-224/1 M	3	PUR, halogen-free, black	
40188	RST 3-RKT 4-3-224/1.5 M	3	PUR, halogen-free, black	
40189	RST 3-RKT 4-3-224/2 M	3	PUR, halogen-free, black	
41692	RST 3-RKT 4-3-224/5 M	3	PUR, halogen-free, black	
11821	RST 4-RKT 4-225/0.3 M	4	PUR, halogen-free, black	
11822	RST 4-RKT 4-225/0.6 M	4	PUR, halogen-free, black	
11823	RST 4-RKT 4-225/1 M	4	PUR, halogen-free, black	
11824	RST 4-RKT 4-225/1.5 M	4	PUR, halogen-free, black	
11825	RST 4-RKT 4-225/2 M	4	PUR, halogen-free, black	
11826	RST 4-RKT 4-225/5 M	4	PUR, halogen-free, black	
11827	RST 4-RKT 4-251/0.3 M	4	PUR, halogen-free, welding spark proof, orange	
11828	RST 4-RKT 4-251/0.6 M	4	PUR, halogen-free, welding spark proof, orange	
11829	RST 4-RKT 4-251/1 M	4	PUR, halogen-free, welding spark proof, orange	
11830	RST 4-RKT 4-251/1.5 M	4	PUR, halogen-free, welding spark proof, orange	
11831	RST 4-RKT 4-251/2 M	4	PUR, halogen-free, welding spark proof, orange	
11832	RST 4-RKT 4-251/5 M	4	PUR, halogen-free, welding spark proof, orange	

Additional cable versions with PVC jacket (STL 06/07/56) available.





















































**Actuator/Sensor Connectors
Double-ended Overmolded Cordset,
M12 Male Connectors to M12 Female Connectors, Standard (continued)**

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
12018	RST 5-RKT 5-228/0.3 M	5	PUR, halogen-free, black	   
12019	RST 5-RKT 5-228/0.6 M	5	PUR, halogen-free, black	   
12020	RST 5-RKT 5-228/1 M	5	PUR, halogen-free, black	   
12021	RST 5-RKT 5-228/1.5 M	5	PUR, halogen-free, black	   
12022	RST 5-RKT 5-228/2 M	5	PUR, halogen-free, black	   
12023	RST 5-RKT 5-228/5 M	5	PUR, halogen-free, black	   
12029	RST 5-RKT 5-259/0.3 M	5	PUR, halogen-free, welding spark proof, orange	    
12030	RST 5-RKT 5-259/0.6 M	5	PUR, halogen-free, welding spark proof, orange	    
12031	RST 5-RKT 5-259/1 M	5	PUR, halogen-free, welding spark proof, orange	    
12032	RST 5-RKT 5-259/1.5 M	5	PUR, halogen-free, welding spark proof, orange	    
12033	RST 5-RKT 5-259/2 M	5	PUR, halogen-free, welding spark proof, orange	    
12034	RST 5-RKT 5-259/5 M	5	PUR, halogen-free, welding spark proof, orange	    
64548	RST 8-RKT 8-282/0.3 M	8	PUR, halogen-free, black	   
64549	RST 8-RKT 8-282/0.6 M	8	PUR, halogen-free, black	   
64550	RST 8-RKT 8-282/1 M	8	PUR, halogen-free, black	   
64551	RST 8-RKT 8-282/1.5 M	8	PUR, halogen-free, black	   
64552	RST 8-RKT 8-282/2 M	8	PUR, halogen-free, black	   
61771	RST 8-RKT 8-282/5 M	8	PUR, halogen-free, black	   
1903	RST 8-RKT 8-6-268/10 M	6	PUR, halogen-free, welding spark proof, orange	    
46920	RST 8-RKT 8-6-268/2 M	6	PUR, halogen-free, welding spark proof, orange	    
43784	RST 8-RKT 8-6-268/5 M	6	PUR, halogen-free, welding spark proof, orange	    
64555	RST 8-RKT 8-6-337/10 M	6	PUR, halogen-free, welding spark proof, orange	    
64553	RST 8-RKT 8-6-337/2 M	6	PUR, halogen-free, welding spark proof, orange	    
64554	RST 8-RKT 8-6-337/5 M	6	PUR, halogen-free, welding spark proof, orange	    

Additional cable versions with PVC (STL 06/07/56) available.


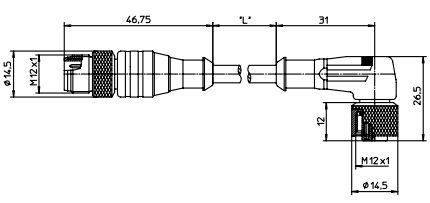
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
105882	RST 12-RKT 12-346/2 M	12	PUR, halogen-free, orange	   
106316	RST 12-RKT 12-346/5 M	12	PUR, halogen-free, orange	   
934637017	RST 12-RKT 12-346/10 M	12	PUR, halogen-free, orange	   
43728	RST 3-RKWT 4-3-224/0.3 M	3	PUR, halogen-free, black	   
43729	RST 3-RKWT 4-3-224/0.6 M	3	PUR, halogen-free, black	   
28977	RST 3-RKWT 4-3-224/1 M	3	PUR, halogen-free, black	   
43730	RST 3-RKWT 4-3-224/1.5 M	3	PUR, halogen-free, black	   
28978	RST 3-RKWT 4-3-224/2 M	3	PUR, halogen-free, black	   
28980	RST 3-RKWT 4-3-224/5 M	3	PUR, halogen-free, black	   
43772	RST 4-RKWT 4-225/0.3 M	4	PUR, halogen-free, black	   
43773	RST 4-RKWT 4-225/0.6 M	4	PUR, halogen-free, black	   
43774	RST 4-RKWT 4-225/1 M	4	PUR, halogen-free, black	   
43775	RST 4-RKWT 4-225/1.5 M	4	PUR, halogen-free, black	   
43776	RST 4-RKWT 4-225/2 M	4	PUR, halogen-free, black	   
28049	RST 4-RKWT 4-225/5 M	4	PUR, halogen-free, black	   
46512	RST 8-RKWT 8-6-268/2 M	6	PUR, halogen-free, welding spark proof, orange	    
43874	RST 8-RKWT 8-6-268/5 M	6	PUR, halogen-free, welding spark proof, orange	    
46513	RST 8-RKWT 8-6-268/10 M	6	PUR, halogen-free, welding spark proof, orange	    
64556	RST 8-RKWT 8-6-337/2 M	6	PUR, halogen-free, black	   
64557	RST 8-RKWT 8-6-337/5 M	6	PUR, halogen-free, black	   
207	RST 8-RKWT 8-6-337/10 M	6	PUR, halogen-free, black	   
934636298	RST 12-RKWT 12-346/2 M	12	PUR, halogen-free, orange	   
934636299	RST 12-RKWT 12-346/5 M	12	PUR, halogen-free, orange	   

Additional cable versions with PVC (STL 06/07/56) available.

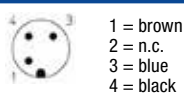
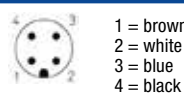


Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M12 Female Connectors, Standard

Technical Information

Product Description	
Order Designation	RST-RKWT/LED
	
Description	Cordset for actuators and sensors, M12 male with self-locking screw coupling, straight, M12 female connector, angled, coupling with boot, LED operation and function indicators (PNP make contact), with self-locking screw coupling, 3 and 4-pin
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101 (M12)
Approvals	UL
Technical Data	
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU (translucent)
Contact Holder Material	TPU
Contact Material/Surface Finish	CuSn, gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	24 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable

Pin Assignment









































































































































































3-pin	4-pin
	
	

Circuit Diagram

RKWT/LED A (PNP make contact)	RKWT/LED P (PNP break/make contact)	RKWT/LED R (PNP break/make contact)
		



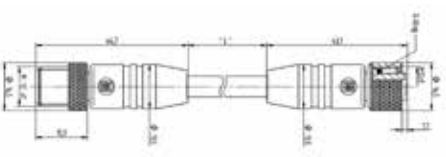
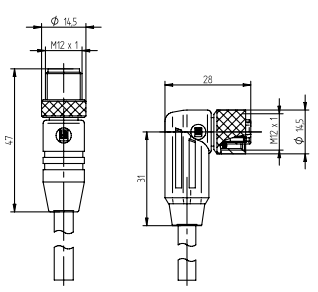
Other circuitry available upon request

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11776	RST 3-RKWT/LED A 4-3-224/0.3 M	3	PUR, halogen-free, black	    
11777	RST 3-RKWT/LED A 4-3-224/0.6 M	3	PUR, halogen-free, black	    
11778	RST 3-RKWT/LED A 4-3-224/1 M	3	PUR, halogen-free, black	    
11779	RST 3-RKWT/LED A 4-3-224/1.5 M	3	PUR, halogen-free, black	    
11781	RST 3-RKWT/LED A 4-3-224/2 M	3	PUR, halogen-free, black	    
11783	RST 3-RKWT/LED A 4-3-224/5 M	3	PUR, halogen-free, black	    
24920	RST 3-RKWT/LED A 4-3-260/0.3 M	3	PUR, halogen-free, welding spark proof, orange	     
11786	RST 3-RKWT/LED A 4-3-260/0.6 M	3	PUR, halogen-free, welding spark proof, orange	     
11787	RST 3-RKWT/LED A 4-3-260/1 M	3	PUR, halogen-free, welding spark proof, orange	     
11788	RST 3-RKWT/LED A 4-3-260/1.5 M	3	PUR, halogen-free, welding spark proof, orange	     
27343	RST 3-RKWT/LED A 4-3-260/2 M	3	PUR, halogen-free, welding spark proof, orange	     
30564	RST 3-RKWT/LED A 4-3-260/5 M	3	PUR, halogen-free, welding spark proof, orange	     
11866	RST 4-RKWT/LED P 4-225/0.3 M	4	PUR, halogen-free, black	    
11867	RST 4-RKWT/LED P 4-225/0.6 M	4	PUR, halogen-free, black	    
11868	RST 4-RKWT/LED P 4-225/1 M	4	PUR, halogen-free, black	    
11869	RST 4-RKWT/LED P 4-225/1.5 M	4	PUR, halogen-free, black	    
11870	RST 4-RKWT/LED P 4-225/2 M	4	PUR, halogen-free, black	    
11872	RST 4-RKWT/LED P 4-225/5 M	4	PUR, halogen-free, black	    
25002	RST 4-RKWT/LED P 4-251/0.3 M	4	PUR, halogen-free, welding spark proof, orange	     
11874	RST 4-RKWT/LED P 4-251/0.6 M	4	PUR, halogen-free, welding spark proof, orange	     
11875	RST 4-RKWT/LED P 4-251/1 M	4	PUR, halogen-free, welding spark proof, orange	     
11876	RST 4-RKWT/LED P 4-251/1.5 M	4	PUR, halogen-free, welding spark proof, orange	     
11877	RST 4-RKWT/LED P 4-251/2 M	4	PUR, halogen-free, welding spark proof, orange	     
38216	RST 4-RKWT/LED P 4-251/5 M	4	PUR, halogen-free, welding spark proof, orange	     
46903	RST 4-RKWT/LED R 4-251/0.3 M	4	PUR, halogen-free, welding spark proof, orange	     
11885	RST 4-RKWT/LED R 4-251/0.6 M	4	PUR, halogen-free, welding spark proof, orange	     
11886	RST 4-RKWT/LED R 4-251/1 M	4	PUR, halogen-free, welding spark proof, orange	     
11887	RST 4-RKWT/LED R 4-251/1.5 M	4	PUR, halogen-free, welding spark proof, orange	     
46904	RST 4-RKWT/LED R 4-251/2 M	4	PUR, halogen-free, welding spark proof, orange	     
18062	RST 4-RKWT/LED R 4-251/5 M	4	PUR, halogen-free, welding spark proof, orange	     




Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M12 Female Connectors, Shielded

Technical Information



























































































Product Description		
Order Designation	RSTS-RKTS	RSTS-RKWTS
		
Description	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight design, to M12 female, straight, with self-locking screw coupling, 360° shield connected to knurled screw/nut, 4 to 8-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight design, and M12 female, angled design, with self-locking screw coupling, 360° shield connected to knurled screw/nut, 4 to 8-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4 and 5-pin 50 V AC/60 V DC, 8-pin 30 V AC/DC	
Rated Current	4 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment



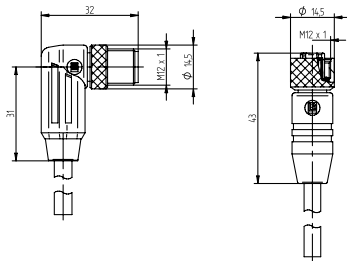
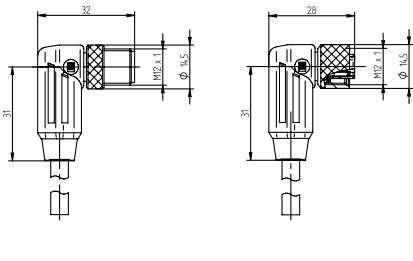
4-pin	5-pin	8-pin
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Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10119	RSTS 4-RKTS 4-182/0.3 M	4	PVC, orange	
10121	RSTS 4-RKTS 4-182/0.6 M	4	PVC, orange	
1598	RSTS 4-RKTS 4-182/1 M	4	PVC, orange	
1218	RSTS 4-RKTS 4-182/2 M	4	PVC, orange	
1220	RSTS 4-RKTS 4-182/5 M	4	PVC, orange	
46414	RSTS 4-RKTS 4-288/0.3 M	4	PUR, halogen-free, black	   
46415	RSTS 4-RKTS 4-288/0.6 M	4	PUR, halogen-free, black	
46416	RSTS 4-RKTS 4-288/1 M	4	PUR, halogen-free, black	
49310	RSTS 4-RKTS 4-288/1.5 M	4	PUR, halogen-free, black	
46418	RSTS 4-RKTS 4-288/2 M	4	PUR, halogen-free, black	
49309	RSTS 4-RKTS 4-288/5 M	4	PUR, halogen-free, black	
10122	RSTS 5-RKTS 5-183/0.3 M	5	PVC, orange	
10123	RSTS 5-RKTS 5-183/0.6 M	5	PVC, orange	
14480	RSTS 5-RKTS 5-183/1 M	5	PVC, orange	
10296	RSTS 5-RKTS 5-183/1.5 M	5	PVC, orange	
17687	RSTS 5-RKTS 5-183/2 M	5	PVC, orange	
85620	RSTS 5-RKTS 5-183/5 M	5	PVC, orange	
62202	RSTS 5-RKTS 5-298/0.3 M	5	PUR, halogen-free, black	   
57380	RSTS 5-RKTS 5-298/0.6 M	5	PUR, halogen-free, black	
58828	RSTS 5-RKTS 5-298/1 M	5	PUR, halogen-free, black	
10124	RSTS 5-RKTS 5-298/1.5 M	5	PUR, halogen-free, black	
61629	RSTS 5-RKTS 5-298/2 M	5	PUR, halogen-free, black	
61630	RSTS 5-RKTS 5-298/5 M	5	PUR, halogen-free, black	
2570	RSTS 5B-RKTS 5B-183/5 M	5B	PVC, orange	
10297	RSTS 8-RKTS 8-184/0.3 M	8	PVC, orange	
10298	RSTS 8-RKTS 8-184/0.6 M	8	PVC, orange	
10299	RSTS 8-RKTS 8-184/1 M	8	PVC, orange	
84334	RSTS 8-RKTS 8-184/1.5 M	8	PVC, orange	
10300	RSTS 8-RKTS 8-184/2 M	8	PVC, orange	
10301	RSTS 8-RKTS 8-184/5 M	8	PVC, orange	
49271	RSTS 8-RKTS 8-299/0.3 M	8	PUR, halogen-free, black	   
49278	RSTS 8-RKTS 8-299/0.6 M	8	PUR, halogen-free, black	
49267	RSTS 8-RKTS 8-299/1 M	8	PUR, halogen-free, black	
50571	RSTS 8-RKTS 8-299/1.5 M	8	PUR, halogen-free, black	
49268	RSTS 8-RKTS 8-299/2 M	8	PUR, halogen-free, black	
49270	RSTS 8-RKTS 8-299/5 M	8	PUR, halogen-free, black	
10302	RSTS 4-RKWTS 4-182/0.3 M	4	PVC, orange	
10303	RSTS 4-RKWTS 4-182/0.6 M	4	PVC, orange	
10304	RSTS 4-RKWTS 4-182/1 M	4	PVC, orange	
10306	RSTS 4-RKWTS 4-182/1.5 M	4	PVC, orange	
10307	RSTS 4-RKWTS 4-182/2 M	4	PVC, orange	
11111	RSTS 4-RKWTS 4-182/5 M	4	PVC, orange	
10125	RSTS 4-RKWTS 4-288/0.3 M	4	PUR, halogen-free, black	   
934705001	RSTS 4-RKWTS 4-288/0.6 M	4	PUR, halogen-free, black	
934705002	RSTS 4-RKWTS 4-288/1 M	4	PUR, halogen-free, black	
934705003	RSTS 4-RKWTS 4-288/1.5 M	4	PUR, halogen-free, black	
934705005	RSTS 4-RKWTS 4-288/2 M	4	PUR, halogen-free, black	
934705008	RSTS 4-RKWTS 4-288/5 M	4	PUR, halogen-free, black	
10322	RSTS 5-RKWTS 5-183/0.3 M	5	PVC, orange	
10324	RSTS 5-RKWTS 5-183/0.6 M	5	PVC, orange	
10326	RSTS 5-RKWTS 5-183/1 M	5	PVC, orange	
10327	RSTS 5-RKWTS 5-183/1.5 M	5	PVC, orange	
10328	RSTS 5-RKWTS 5-183/2 M	5	PVC, orange	
10330	RSTS 5-RKWTS 5-183/5 M	5	PVC, orange	
934705009	RSTS 5-RKWTS 5-298/0.3 M	5	PUR, halogen-free, black	   
934705010	RSTS 5-RKWTS 5-298/0.6 M	5	PUR, halogen-free, black	
10132	RSTS 5-RKWTS 5-298/1 M	5	PUR, halogen-free, black	
10137	RSTS 5-RKWTS 5-298/1.5 M	5	PUR, halogen-free, black	
934705011	RSTS 5-RKWTS 5-298/2 M	5	PUR, halogen-free, black	
934705012	RSTS 5-RKWTS 5-298/5 M	5	PUR, halogen-free, black	
10331	RSTS 8-RKWTS 8-184/0.3 M	8	PVC, orange	
10333	RSTS 8-RKWTS 8-184/0.6 M	8	PVC, orange	
10338	RSTS 8-RKWTS 8-184/1 M	8	PVC, orange	
10339	RSTS 8-RKWTS 8-184/1.5 M	8	PVC, orange	
10341	RSTS 8-RKWTS 8-184/2 M	8	PVC, orange	
10342	RSTS 8-RKWTS 8-184/5 M	8	PVC, orange	
10138	RSTS 8-RKWTS 8-299/0.3 M	8	PUR, halogen-free, black	   
10145	RSTS 8-RKWTS 8-299/0.6 M	8	PUR, halogen-free, black	
934705013	RSTS 8-RKWTS 8-299/1 M	8	PUR, halogen-free, black	
10155	RSTS 8-RKWTS 8-299/1.5 M	8	PUR, halogen-free, black	
934705015	RSTS 8-RKWTS 8-299/2 M	8	PUR, halogen-free, black	
934705017	RSTS 8-RKWTS 8-299/5 M	8	PUR, halogen-free, black	




Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M12 Female Connectors, Shielded

Technical Information







































































































































Product Description		
Order Designation	RSWTS-RKTS	RSWTS-RKWTS
		
Description	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, angled, to M12 female, straight, with self-locking screw coupling, 360° shield connected to knurled screw/nut, 4, 5, and 8-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, angled, to M12 female, angled design, with self-locking screw coupling, 360° shield connected to knurled screw/nut, 4, 5, and 8-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4 and 5-pin 50 V AC/60 V DC, 8-pin 30 V AC/DC	
Rated Current	4 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment




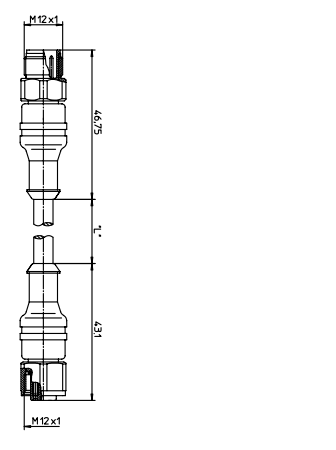
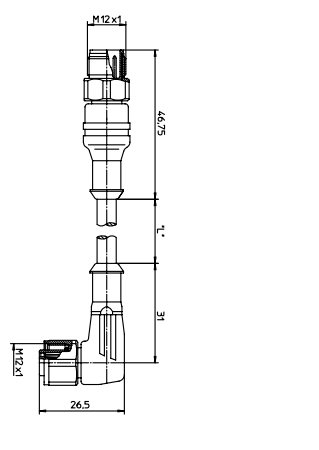
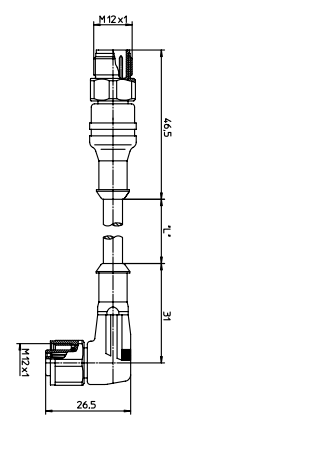
4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10343	RSWTS 4-RKTS 4-182/0.3 M	4	PVC, orange	
10344	RSWTS 4-RKTS 4-182/0.6 M	4	PVC, orange	
10346	RSWTS 4-RKTS 4-182/1 M	4	PVC, orange	
10347	RSWTS 4-RKTS 4-182/1.5 M	4	PVC, orange	
10348	RSWTS 4-RKTS 4-182/2 M	4	PVC, orange	
10349	RSWTS 4-RKTS 4-182/5 M	4	PVC, orange	
10350	RSWTS 4-RKTS 4-288/0.3 M	4	PUR, halogen-free, black	   
10351	RSWTS 4-RKTS 4-288/0.6 M	4	PUR, halogen-free, black	   
10352	RSWTS 4-RKTS 4-288/1 M	4	PUR, halogen-free, black	   
10353	RSWTS 4-RKTS 4-288/1.5 M	4	PUR, halogen-free, black	   
10354	RSWTS 4-RKTS 4-288/2 M	4	PUR, halogen-free, black	   
10355	RSWTS 4-RKTS 4-288/5 M	4	PUR, halogen-free, black	   
10356	RSWTS 5-RKTS 5-183/0.3 M	5	PVC, orange	
10357	RSWTS 5-RKTS 5-183/0.6 M	5	PVC, orange	
10358	RSWTS 5-RKTS 5-183/1 M	5	PVC, orange	
10359	RSWTS 5-RKTS 5-183/1.5 M	5	PVC, orange	
10360	RSWTS 5-RKTS 5-183/2 M	5	PVC, orange	
10361	RSWTS 5-RKTS 5-183/5 M	5	PVC, orange	
10362	RSWTS 5-RKTS 5-298/0.3 M	5	PUR, halogen-free, black	   
10363	RSWTS 5-RKTS 5-298/0.6 M	5	PUR, halogen-free, black	   
10364	RSWTS 5-RKTS 5-298/1 M	5	PUR, halogen-free, black	   
10365	RSWTS 5-RKTS 5-298/1.5 M	5	PUR, halogen-free, black	   
10366	RSWTS 5-RKTS 5-298/2 M	5	PUR, halogen-free, black	   
10367	RSWTS 5-RKTS 5-298/5 M	5	PUR, halogen-free, black	   
10368	RSWTS 8-RKTS 8-184/0.3 M	8	PVC, orange	
10369	RSWTS 8-RKTS 8-184/0.6 M	8	PVC, orange	
10370	RSWTS 8-RKTS 8-184/1 M	8	PVC, orange	
10371	RSWTS 8-RKTS 8-184/1.5 M	8	PVC, orange	
10372	RSWTS 8-RKTS 8-184/2 M	8	PVC, orange	
10373	RSWTS 8-RKTS 8-184/5 M	8	PVC, orange	
10374	RSWTS 8-RKTS 8-299/0.3 M	8	PUR, halogen-free, black	   
10375	RSWTS 8-RKTS 8-299/0.6 M	8	PUR, halogen-free, black	   
10376	RSWTS 8-RKTS 8-299/1 M	8	PUR, halogen-free, black	   
10377	RSWTS 8-RKTS 8-299/1.5 M	8	PUR, halogen-free, black	   
9388	RSWTS 8-RKTS 8-299/2 M	8	PUR, halogen-free, black	   
2215	RSWTS 8-RKTS 8-299/5 M	8	PUR, halogen-free, black	   
10378	RSWTS 4-RKWTS 4-182/0.3 M	4	PVC, orange	
10380	RSWTS 4-RKWTS 4-182/0.6 M	4	PVC, orange	
5216	RSWTS 4-RKWTS 4-182/1 M	4	PVC, orange	
5215	RSWTS 4-RKWTS 4-182/1.5 M	4	PVC, orange	
5214	RSWTS 4-RKWTS 4-182/2 M	4	PVC, orange	
10381	RSWTS 4-RKWTS 4-182/5 M	4	PVC, orange	
10385	RSWTS 4-RKWTS 4-288/0.3 M	4	PUR, halogen-free, black	   
10387	RSWTS 4-RKWTS 4-288/0.6 M	4	PUR, halogen-free, black	   
10388	RSWTS 4-RKWTS 4-288/1 M	4	PUR, halogen-free, black	   
10389	RSWTS 4-RKWTS 4-288/1.5 M	4	PUR, halogen-free, black	   
10390	RSWTS 4-RKWTS 4-288/2 M	4	PUR, halogen-free, black	   
5541	RSWTS 4-RKWTS 4-288/5 M	4	PUR, halogen-free, black	   
10392	RSWTS 5-RKWTS 5-183/0.3 M	5	PVC, orange	
10393	RSWTS 5-RKWTS 5-183/0.6 M	5	PVC, orange	
10394	RSWTS 5-RKWTS 5-183/1 M	5	PVC, orange	
10395	RSWTS 5-RKWTS 5-183/1.5 M	5	PVC, orange	
10397	RSWTS 5-RKWTS 5-183/2 M	5	PVC, orange	
10398	RSWTS 5-RKWTS 5-183/5 M	5	PVC, orange	
3954	RSWTS 5-RKWTS 5-298/0.3 M	5	PUR, halogen-free, black	   
10399	RSWTS 5-RKWTS 5-298/0.6 M	5	PUR, halogen-free, black	   
10400	RSWTS 5-RKWTS 5-298/1 M	5	PUR, halogen-free, black	
10401	RSWTS 5-RKWTS 5-298/1.5 M	5	PUR, halogen-free, black	
10402	RSWTS 5-RKWTS 5-298/2 M	5	PUR, halogen-free, black	
10403	RSWTS 5-RKWTS 5-298/5 M	5	PUR, halogen-free, black	
10404	RSWTS 8-RKWTS 8-184/0.3 M	8	PVC, orange	
10405	RSWTS 8-RKWTS 8-184/0.6 M	8	PVC, orange	
10406	RSWTS 8-RKWTS 8-184/1 M	8	PVC, orange	
10407	RSWTS 8-RKWTS 8-184/1.5 M	8	PVC, orange	
10408	RSWTS 8-RKWTS 8-184/2 M	8	PVC, orange	
10409	RSWTS 8-RKWTS 8-184/5 M	8	PVC, orange	
10410	RSWTS 8-RKWTS 8-299/0.3 M	8	PUR, halogen-free, black	
10411	RSWTS 8-RKWTS 8-299/0.6 M	8	PUR, halogen-free, black	
10412	RSWTS 8-RKWTS 8-299/1 M	8	PUR, halogen-free, black	
10414	RSWTS 8-RKWTS 8-299/1.5 M	8	PUR, halogen-free, black	
10415	RSWTS 8-RKWTS 8-299/2 M	8	PUR, halogen-free, black	
10416	RSWTS 8-RKWTS 8-299/5 M	8	PUR, halogen-free, black	

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M12 Female Connectors for Food & Beverage

Technical Information

Product Description			
Order Designation	PRST-PRKT	PRST-PRKWT	PRST-PRKWT/LED
			
Description	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight to M12 female, straight, with self-locking stainless steel hexagonal screw coupling, 4-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight to M12 female, angled, with self-locking stainless steel hexagonal screw coupling, 4-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M12 female, angled, with self-locking stainless steel hexagonal screw coupling, with LED operation and function indicators, 4-pin
Note	Especially suitable for use in food processing equipment.		
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101 (M12)		
Approvals	UL		
Technical Data			
Ambient Temperature	-25 °C to +70 °C (connectors), mind cable temperature range		
Housing Material/Grip	PVC		
Contact Holder Material	PVC		
Contact Material/Surface Finish	PRST: CuZn gold-plated, PRKT: CuSn gold-plated		
Screw Coupling Material	Stainless steel		
Mechanical Data			
Degree of Protection	IP67, IP69K (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	230 V AC/DC		24 V DC
Rated Current	4 A		
Pollution Degree	3		
Technical Drawing			
			

L = Standard length of cable

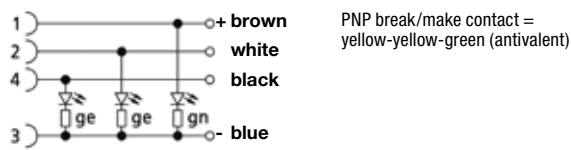
Pin Assignment

4-pin



Circuit Diagram

PRST 4-PRKWT/LED P





Special circuitry available upon request

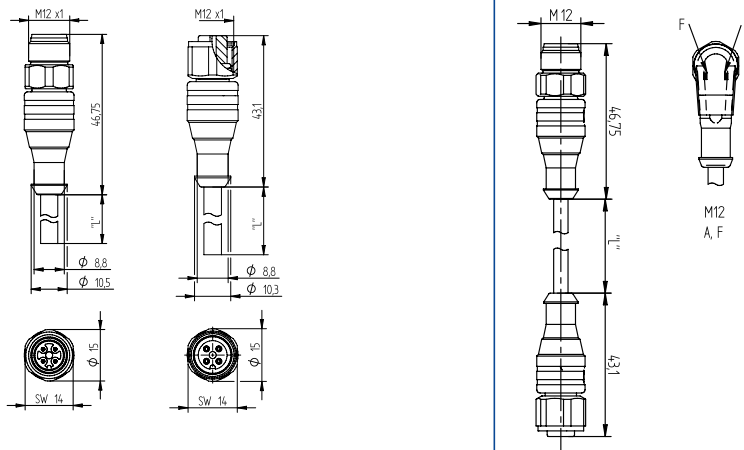
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
28634	PRST 4-PRKT 4-07/2 M	4	PVC, orange	UL
28635	PRST 4-PRKT 4-07/5 M	4	PVC, orange	UL
38424	PRST 4-PRKWT 4-07/2 M	4	PVC, orange	UL
38425	PRST 4-PRKWT 4-07/5 M	4	PVC, orange	UL
28719	PRST 4-PRKWT/LED P 4-07/2 M	4	PVC, orange	UL
28720	PRST 4-PRKWT/LED P 4-07/5 M	4	PVC, orange	UL

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M12 Female Connectors for Food & Beverage









Technical Information

Product Description		
Order Designation	WRST-WRKT	WRST-WRKT/LED
		
Description	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M12 female, with self-locking screw coupling, straight, stainless steel hexagonal nut, 3, 4, 5, and 8-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M12 female, with self-locking screw coupling, angled, stainless steel hexagonal nut, with LED operation and function indicators, 3 and 4-pin
Note	Especially suitable for use in wash-down applications.	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	UL, ECOLAB	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (as per UL; connectors designed for operating temperatures from -40 °C to +105 °C as per VDE)	
Housing Material/Grip	PP	
Contact Holder Material	PP	
Contact Material/Surface Finish	CuSn, Cu/Au	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67, IP68, IP69K (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 and 4-pin 230 V AC/DC, 5-pin 50 V AC/60 V DC, 8-pin 30 V AC/DC	24 V DC
Rated Current	3, 4, and 5-pin 4 A, 8-pin 2 A	4 A
Pollution Degree	3	
Technical Drawing		

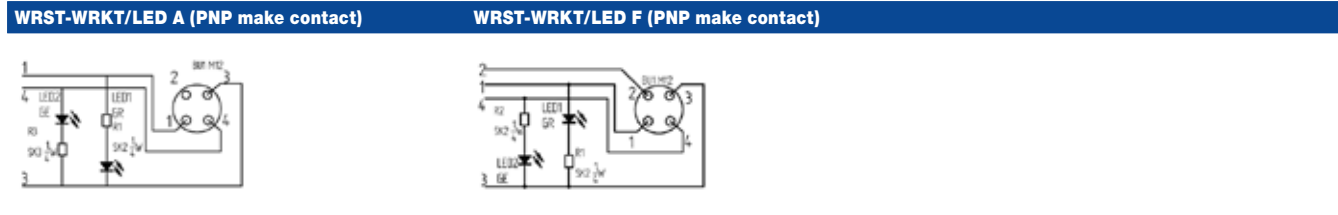


L = Standard length of cable

Pin Assignment

3-pin	4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = n.c. 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red
			

Circuit Diagram





Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934737001	WRST 3-WRKT 4-3-520/0.6 M	3	TPE-V, flame-resistant, orange	
934737002	WRST 3-WRKT 4-3-520/1 M	3	TPE-V, flame-resistant, orange	
934737003	WRST 3-WRKT 4-3-520/2 M	3	TPE-V, flame-resistant, orange	
934737004	WRST 3-WRKT 4-3-520/5 M	3	TPE-V, flame-resistant, orange	
934737005	WRST 3-WRKT 4-3-520/10 M	3	TPE-V, flame-resistant, orange	
934737006	WRST 3-WRKT 4-3-520/15 M	3	TPE-V, flame-resistant, orange	
934737007	WRST 4-WRKT 4-521/0.6 M	4	TPE-V, flame-resistant, orange	
934737008	WRST 4-WRKT 4-521/1 M	4	TPE-V, flame-resistant, orange	
934737009	WRST 4-WRKT 4-521/2 M	4	TPE-V, flame-resistant, orange	
934737010	WRST 4-WRKT 4-521/5 M	4	TPE-V, flame-resistant, orange	
934737011	WRST 4-WRKT 4-521/10 M	4	TPE-V, flame-resistant, orange	
934737012	WRST 4-WRKT 4-521/15 M	4	TPE-V, flame-resistant, orange	
10419	WRST 5-WRKT 5-522/0.6 M	5	TPE-V, flame-resistant, orange	
10420	WRST 5-WRKT 5-522/1 M	5	TPE-V, flame-resistant, orange	
10421	WRST 5-WRKT 5-522/2 M	5	TPE-V, flame-resistant, orange	
4213	WRST 5-WRKT 5-522/5 M	5	TPE-V, flame-resistant, orange	
10422	WRST 5-WRKT 5-522/10 M	5	TPE-V, flame-resistant, orange	
10423	WRST 5-WRKT 5-522/15 M	5	TPE-V, flame-resistant, orange	
10426	WRST 8-WRKT 8-523/0.6 M	8	TPE-V, flame-resistant, orange	
10428	WRST 8-WRKT 8-523/1 M	8	TPE-V, flame-resistant, orange	
8890	WRST 8-WRKT 8-523/2 M	8	TPE-V, flame-resistant, orange	
10429	WRST 8-WRKT 8-523/5 M	8	TPE-V, flame-resistant, orange	
10430	WRST 8-WRKT 8-523/10 M	8	TPE-V, flame-resistant, orange	
10431	WRST 8-WRKT 8-523/15 M	8	TPE-V, flame-resistant, orange	
934753019	WRST 3-WRKT/LED A 4-3-520/0.6 M	3	TPE-V, flame-resistant, orange	
934753020	WRST 3-WRKT/LED A 4-3-520/1 M	3	TPE-V, flame-resistant, orange	
934753021	WRST 3-WRKT/LED A 4-3-520/2 M	3	TPE-V, flame-resistant, orange	
934753022	WRST 3-WRKT/LED A 4-3-520/5 M	3	TPE-V, flame-resistant, orange	
934753023	WRST 3-WRKT/LED A 4-3-520/10 M	3	TPE-V, flame-resistant, orange	
934753024	WRST 3-WRKT/LED A 4-3-520/15 M	3	TPE-V, flame-resistant, orange	
934753025	WRST 4-WRKT/LED F 4-521/0.6 M	4	TPE-V, flame-resistant, orange	
934753026	WRST 4-WRKT/LED F 4-521/1 M	4	TPE-V, flame-resistant, orange	
934753027	WRST 4-WRKT/LED F 4-521/2 M	4	TPE-V, flame-resistant, orange	
934753028	WRST 4-WRKT/LED F 4-521/5 M	4	TPE-V, flame-resistant, orange	
934753029	WRST 4-WRKT/LED F 4-521/10 M	4	TPE-V, flame-resistant, orange	
934753030	WRST 4-WRKT/LED F 4-521/15 M	4	TPE-V, flame-resistant, orange	

The application of these products in harsh environments should always be checked before use. Technical modifications reserved.

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M12 Female Connectors, Food & Beverage

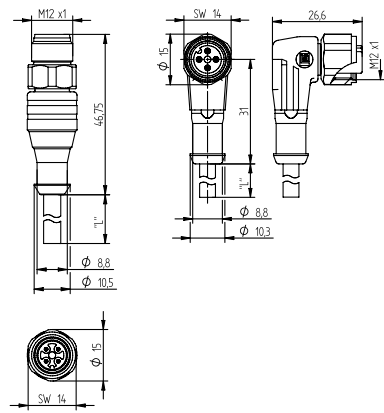
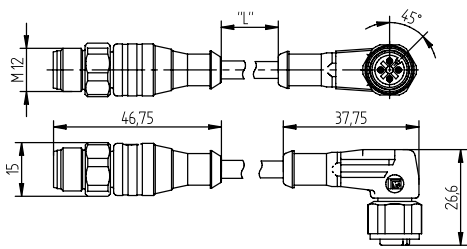
Technical Information

Product Description		
Order Designation	WRST-WRKWT	WRST-WRKWT/LED
		
Description	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M12 female, with self-locking screw coupling, angled, stainless steel hexagonal nut, 3 to 5-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M12 female, with self-locking screw coupling, angled, stainless steel hexagonal nut, with LED operation and function indicators, 4-pin
Note	Especially suitable for use in wash-down applications.	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	UL, ECOLAB	

Technical Data	
Ambient Temperature	-40 °C to +90 °C (as per UL; connectors designed for operating temperatures from -40 °C to +105 °C as per VDE)
Housing Material/Grip	PP
Contact Holder Material	PP
Contact Material/Surface Finish	CuSn, Cu/Au
Screw Coupling Material	Stainless steel







Mechanical Data	
Degree of Protection	IP67, IP68, IP69K (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)

Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 and 4-pin 230 V AC/DC, 5-pin 50 V AC/60 V DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	

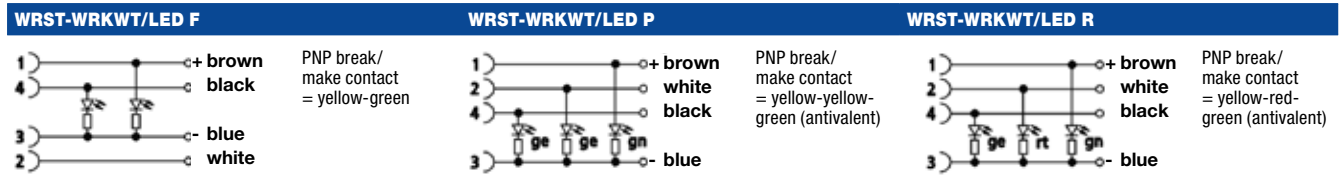
Technical Drawing	
	

L = Standard length of cable

Pin Assignment

3-pin	4-pin	5-pin
 <ul style="list-style-type: none"> 1 = brown 2 = n.c. 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray
		

Circuit Diagram





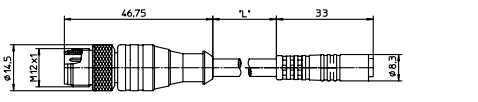
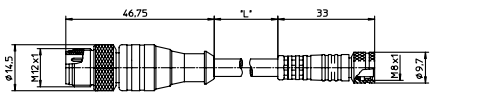
Special circuitry available upon request

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934737013	WRST 3-WRKWT 4-3-520/0.6 M	3	TPE-V, flame-resistant, orange	
934737014	WRST 3-WRKWT 4-3-520/1 M	3	TPE-V, flame-resistant, orange	
934737015	WRST 3-WRKWT 4-3-520/2 M	3	TPE-V, flame-resistant, orange	
934737016	WRST 3-WRKWT 4-3-520/5 M	3	TPE-V, flame-resistant, orange	
934737017	WRST 3-WRKWT 4-3-520/10 M	3	TPE-V, flame-resistant, orange	
934737018	WRST 3-WRKWT 4-3-520/15 M	3	TPE-V, flame-resistant, orange	
934737019	WRST 4-WRKWT 4-521/0.6 M	4	TPE-V, flame-resistant, orange	
934737020	WRST 4-WRKWT 4-521/1 M	4	TPE-V, flame-resistant, orange	
934737021	WRST 4-WRKWT 4-521/2 M	4	TPE-V, flame-resistant, orange	
934737022	WRST 4-WRKWT 4-521/5 M	4	TPE-V, flame-resistant, orange	
934737023	WRST 4-WRKWT 4-521/10 M	4	TPE-V, flame-resistant, orange	
934737024	WRST 4-WRKWT 4-521/15 M	4	TPE-V, flame-resistant, orange	
934753031	WRST 4-WRKWT/LED F 4-521/0.6 M	4	TPE-V, flame-resistant, orange	
934753032	WRST 4-WRKWT/LED F 4-521/1 M	4	TPE-V, flame-resistant, orange	
934753033	WRST 4-WRKWT/LED F 4-521/2 M	4	TPE-V, flame-resistant, orange	
934753034	WRST 4-WRKWT/LED F 4-521/5 M	4	TPE-V, flame-resistant, orange	
934753035	WRST 4-WRKWT/LED F 4-521/10 M	4	TPE-V, flame-resistant, orange	
934753036	WRST 4-WRKWT/LED F 4-521/15 M	4	TPE-V, flame-resistant, orange	
934753037	WRST 4-WRKWT/LED P 4-521/0.6 M	4	TPE-V, flame-resistant, orange	
934753038	WRST 4-WRKWT/LED P 4-521/1 M	4	TPE-V, flame-resistant, orange	
934753039	WRST 4-WRKWT/LED P 4-521/2 M	4	TPE-V, flame-resistant, orange	
934753040	WRST 4-WRKWT/LED P 4-521/5 M	4	TPE-V, flame-resistant, orange	
934753041	WRST 4-WRKWT/LED P 4-521/10 M	4	TPE-V, flame-resistant, orange	
934753042	WRST 4-WRKWT/LED P 4-521/15 M	4	TPE-V, flame-resistant, orange	
934753043	WRST 4-WRKWT/LED R 4-521/0.6 M	4	TPE-V, flame-resistant, orange	
934753044	WRST 4-WRKWT/LED R 4-521/1 M	4	TPE-V, flame-resistant, orange	
934753045	WRST 4-WRKWT/LED R 4-521/2 M	4	TPE-V, flame-resistant, orange	
934753046	WRST 4-WRKWT/LED R 4-521/5 M	4	TPE-V, flame-resistant, orange	
934753047	WRST 4-WRKWT/LED R 4-521/10 M	4	TPE-V, flame-resistant, orange	
934753048	WRST 4-WRKWT/LED R 4-521/15 M	4	TPE-V, flame-resistant, orange	

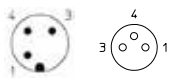
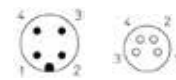
Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors with M8 Female Connectors, Standard

Technical Information

Product Description		
Order Designation	RST-RKM	RST-RKMV
		
Description	Cordset for actuators and sensors, M12 male with self-locking screw coupling, straight, to M8 female, with snap-in coupling, straight, 3-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M8 female, with self-locking screw coupling, straight, 3 and 4-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104 (M8), IEC 61076-2-101 (M12)	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, gold over nickel plating	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>



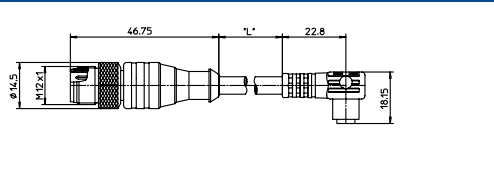
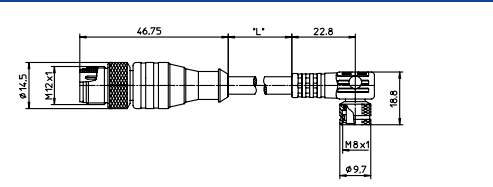
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43707	RST 3-RKM 3-224/0.3 M	3	PUR, halogen-free, black	  
43708	RST 3-RKM 3-224/0.6 M	3	PUR, halogen-free, black	
43709	RST 3-RKM 3-224/1 M	3	PUR, halogen-free, black	
43710	RST 3-RKM 3-224/1.5 M	3	PUR, halogen-free, black	
43711	RST 3-RKM 3-224/2 M	3	PUR, halogen-free, black	
44605	RST 3-RKM 3-224/5 M	3	PUR, halogen-free, black	
28536	RST 3-RKMV 3-224/0.3 M	3	PUR, halogen-free, black	   
40190	RST 3-RKMV 3-224/0.6 M	3	PUR, halogen-free, black	
17081	RST 3-RKMV 3-224/1 M	3	PUR, halogen-free, black	
38689	RST 3-RKMV 3-224/1.5 M	3	PUR, halogen-free, black	
17082	RST 3-RKMV 3-224/2 M	3	PUR, halogen-free, black	
29616	RST 3-RKMV 3-224/5 M	3	PUR, halogen-free, black	
96874	RST 3-RKMV 3-260/0.3 M	3	PUR, halogen-free, welding spark proof, black	    
96871	RST 3-RKMV 3-260/0.6 M	3	PUR, halogen-free, welding spark proof, black	
96872	RST 3-RKMV 3-260/1 M	3	PUR, halogen-free, welding spark proof, black	
96876	RST 3-RKMV 3-260/1.5 M	3	PUR, halogen-free, welding spark proof, black	
934636569	RST 3-RKMV 3-260/2 M	3	PUR, halogen-free, welding spark proof, black	
934637570	RST 3-RKMV 3-260/5 M	3	PUR, halogen-free, welding spark proof, black	
44349	RST 4-RKMV 4-225/0.3 M	4	PUR, halogen-free, black	   
44078	RST 4-RKMV 4-225/0.6 M	4	PUR, halogen-free, black	
44031	RST 4-RKMV 4-225/1 M	4	PUR, halogen-free, black	
44609	RST 4-RKMV 4-225/1.5 M	4	PUR, halogen-free, black	
29622	RST 4-RKMV 4-225/2 M	4	PUR, halogen-free, black	
29623	RST 4-RKMV 4-225/5 M	4	PUR, halogen-free, black	
14349	RST 4-RKMV 4-251/0.3 M	4	PUR, halogen-free, welding spark proof, orange	    
14348	RST 4-RKMV 4-251/0.6 M	4	PUR, halogen-free, welding spark proof, orange	
14347	RST 4-RKMV 4-251/1 M	4	PUR, halogen-free, welding spark proof, orange	
7124	RST 4-RKMV 4-251/1.5 M	4	PUR, halogen-free, welding spark proof, orange	
57328	RST 4-RKMV 4-251/2 M	4	PUR, halogen-free, welding spark proof, orange	
10432	RST 4-RKMV 4-251/5 M	4	PUR, halogen-free, welding spark proof, orange	

Additional cable versions with PVC jacket (STL 06/07) available.

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors with M8 Female Connectors, Standard

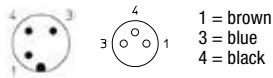
Technical Information

Product Description		
Order Designation	RST-RKMW/LED	RST-RKMWV/LED
		
Description	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M8 female, with snap-in coupling, angled, LED operation and function indicators (PNP make contact), 3-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M8 female, with self-locking screw coupling, angled, LED operation and function indicators, 3-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104 (M8, IEC 61076-2-101 (M12)	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	24 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

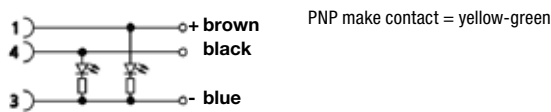
Pin Assignment

3-pin



Circuit Diagram

RST-RKMVV/LED A




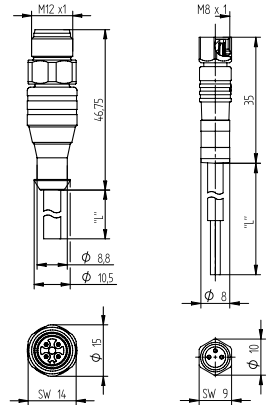
Special circuitry available upon request

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43719	RST 3-RKMVV/LED A 3-224/0.3 M	3	PUR, halogen-free, black	
43720	RST 3-RKMVV/LED A 3-224/0.6 M	3	PUR, halogen-free, black	
43721	RST 3-RKMVV/LED A 3-224/1 M	3	PUR, halogen-free, black	
17010	RST 3-RKMVV/LED A 3-224/1.5 M	3	PUR, halogen-free, black	
14687	RST 3-RKMVV/LED A 3-224/2 M	3	PUR, halogen-free, black	
14686	RST 3-RKMVV/LED A 3-224/5 M	3	PUR, halogen-free, black	
11749	RST 3-RKMVV/LED A 3-224/0.3 M	3	PUR, halogen-free, black	
11750	RST 3-RKMVV/LED A 3-224/0.6 M	3	PUR, halogen-free, black	
11751	RST 3-RKMVV/LED A 3-224/1 M	3	PUR, halogen-free, black	
11752	RST 3-RKMVV/LED A 3-224/1.5 M	3	PUR, halogen-free, black	
11753	RST 3-RKMVV/LED A 3-224/2 M	3	PUR, halogen-free, black	
11755	RST 3-RKMVV/LED A 3-224/5 M	3	PUR, halogen-free, black	
47274	RST 3-RKMVV/LED A 3-260/0.3 M	3	PUR, halogen-free, welding spark proof, orange	
47275	RST 3-RKMVV/LED A 3-260/0.6 M	3	PUR, halogen-free, welding spark proof, orange	
48920	RST 3-RKMVV/LED A 3-260/1 M	3	PUR, halogen-free, welding spark proof, orange	
46773	RST 3-RKMVV/LED A 3-260/1.5 M	3	PUR, halogen-free, welding spark proof, orange	
66269	RST 3-RKMVV/LED A 3-260/2 M	3	PUR, halogen-free, welding spark proof, orange	
86994	RST 3-RKMVV/LED A 3-260/5 M	3	PUR, halogen-free, welding spark proof, orange	

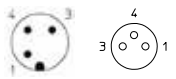

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M8 Female Connectors, Food & Beverage

Technical Information




























































Product Description	
Order Designation	WRST-WRKMV
	
Description	Cordset for actuators and sensors, M12 male connector, with self-locking screw coupling, straight design, and M8 female connector, straight design, with screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin
Note	Especially suitable for use in wash-down applications.
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104 (M8), IEC 61076-2-101 (M12)
Approvals	UL, ECOLAB
Technical Data	
Ambient Temperature	-40 °C to +90 °C (as per UL; connectors designed for operating temperatures from -40 °C to +105 °C as per VDE)
Housing Material/Grip	PP
Contact Holder Material	PP
Contact Material/Surface Finish	CuSn, Cu/Au
Screw Coupling Material	Stainless steel
Mechanical Data	
Degree of Protection	IP67, IP68, IP69K (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable

Pin Assignment



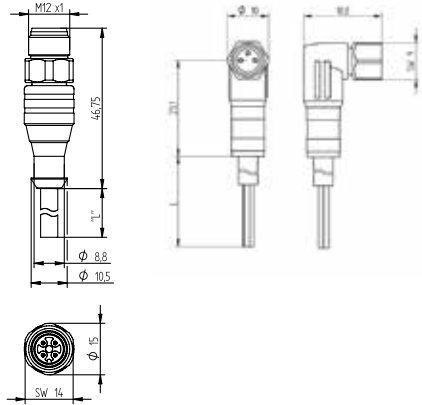
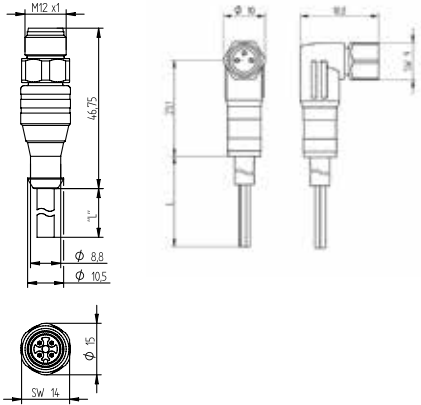
3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934737025	WRST 3 - WRKMV 3-520/0.6 M	3	TPE-V, flame-resistant, orange	    
934737026	WRST 3 - WRKMV 3-520/1 M	3	TPE-V, flame-resistant, orange	    
934737027	WRST 3 - WRKMV 3-520/2 M	3	TPE-V, flame-resistant, orange	    
934737028	WRST 3 - WRKMV 3-520/5 M	3	TPE-V, flame-resistant, orange	    
934737029	WRST 3 - WRKMV 3-520/10 M	3	TPE-V, flame-resistant, orange	    
934737030	WRST 3 - WRKMV 3-520/15 M	3	TPE-V, flame-resistant, orange	   
934737037	WRST 4-WRKMV 4-521/0.6 M	4	TPE-V, flame-resistant, orange	    
934737038	WRST 4-WRKMV 4-521/1 M	4	TPE-V, flame-resistant, orange	    
934737039	WRST 4-WRKMV 4-521/2 M	4	TPE-V, flame-resistant, orange	    
934737040	WRST 4-WRKMV 4-521/5 M	4	TPE-V, flame-resistant, orange	    
934737041	WRST 4-WRKMV 4-521/10 M	4	TPE-V, flame-resistant, orange	    
934737042	WRST 4-WRKMV 4-521/15 M	4	TPE-V, flame-resistant, orange	    

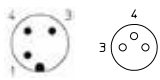
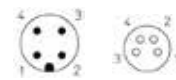
Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Male Connectors to M8 Female Connectors, Food & Beverage

Technical Information

Product Description		
Order Designation	WRST-WRKMVV	WRST-WRKMVV/LED
		
Description	Cordset for actuators and sensors, M12 male with self-locking screw coupling, straight, to M8 female, angled, with self-locking screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin	Cordset for actuators and sensors, M12 male, with self-locking screw coupling, straight, to M8 female connector, angled, with self-locking screw coupling and overmolded cable, stainless steel hexagonal nut, LED operation and function indicators (PNP make contact), 3-pin
Note	Especially suitable for use in wash-down applications.	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104 (M8), IEC 61076-2-101 (M12)	
Approvals	UL, ECOLAB	
Technical Data		
Ambient Temperature	M8/ M12 Standard: -40 °C to +90 °C (as per UL; connectors designed for operating temperatures from -40 °C to +105 °C as per VDE), M8 LED-Type: -30 °C to +85 °C	
Housing Material/Grip	PP	
Contact Holder Material	PP	
Contact Material/Surface Finish	CuSn, Cu/Au	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67, IP68, IP69K (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

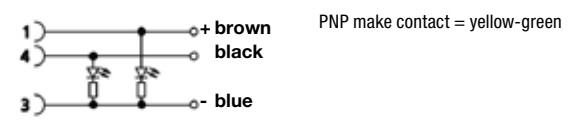
L = Standard length of cable

Pin Assignment

3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Circuit Diagram

WRST-WRKMWV/LED A



Special circuitry available upon request



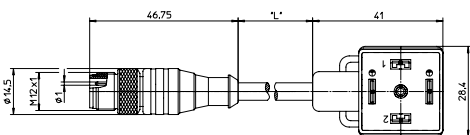
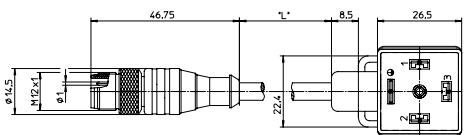
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934737031	WRST 3-WRKMWV 3-520/0.6 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934737032	WRST 3-WRKMWV 3-520/1 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934737033	WRST 3-WRKMWV 3-520/2 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934737034	WRST 3-WRKMWV 3-520/5 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934737035	WRST 3-WRKMWV 3-520/10 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934737036	WRST 3-WRKMWV 3-520/15 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934737043	WRST 4-WRKMWV 4-521/0.6 M	4	TPE-V, flame-resistant, orange	ECO LAB UL C
934737044	WRST 4-WRKMWV 4-521/1 M	4	TPE-V, flame-resistant, orange	ECO LAB UL C
934737045	WRST 4-WRKMWV 4-521/2 M	4	TPE-V, flame-resistant, orange	ECO LAB UL C
934737046	WRST 4-WRKMWV 4-521/5 M	4	TPE-V, flame-resistant, orange	ECO LAB UL C
934737047	WRST 4-WRKMWV 4-521/10 M	4	TPE-V, flame-resistant, orange	ECO LAB UL C
934737048	WRST 4-WRKMWV 4-521/15 M	4	TPE-V, flame-resistant, orange	ECO LAB UL C
934753007	WRST 3-WRKMWV/LED A 3-520/0.6 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753008	WRST 3-WRKMWV/LED A 3-520/1 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753009	WRST 3-WRKMWV/LED A 3-520/2 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753010	WRST 3-WRKMWV/LED A 3-520/5 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753011	WRST 3-WRKMWV/LED A 3-520/10 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753012	WRST 3-WRKMWV/LED A 3-520/15 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C

The application of these products in harsh environments should always be checked before use. Technical modifications reserved.




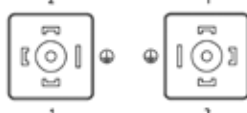
Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 to Valve Connectors as per DIN EN 175301-803, Type A

Technical Information

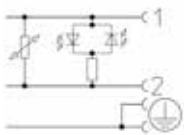
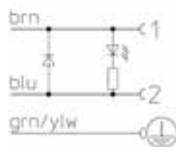
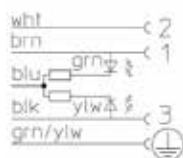
Product Description		
Order Designation	RST-VAD 1A RST-VAD 1F	RST-VAD 3C-4-1 RST-VAD 3C-4-2
		
Description	Actuator cordset, M12 male with self-locking screw coupling to valve connector as per DIN EN 175301-803, type A, 3-pin, protection circuit using varistor (yellow LED), or recovery diode (VAD 1F)	Sensor cordset, M12 male with self-locking screw coupling to connector for pressure switch as per DIN EN 175301-803, type A, 5-pin, yellow LED and green operation indicator
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12), DIN EN 175301-803 (valve connector)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	RST: TPU, VAD: PBT	
Contact Material/Surface Finish	RST: CuZn, nickel underlay and gold-plated, VAD: CuZn, nickel-plated and tin-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	VAD 1A-1-1: 24 V AC/DC, VAD 3C-4-1: 24 V DC, VAD 1F-4-1: 24 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin	VAD 1A/VAD 1F	5-pin	VAD 3C-4-1/ VAD 3C-4-2
 <ul style="list-style-type: none"> 1 = n.c. 2 = n.c. 3 = blue 4 = brown 5 = green/yellow 	 <ul style="list-style-type: none"> 1 = brown 2 = blue ⊕ = green/yellow 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = black LED = blue ⊕ = green/yellow

Circuit Diagram



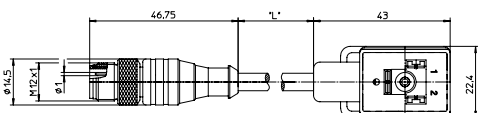
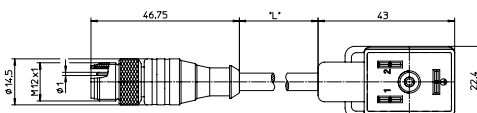
VAD 1A	VAD 1F	VAD 3C
		

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11910	RST 5-3-VAD 1A-1-3-226/0.3 M	3	PUR, halogen-free, black	
11911	RST 5-3-VAD 1A-1-3-226/0.6 M	3	PUR, halogen-free, black	
11912	RST 5-3-VAD 1A-1-3-226/1 M	3	PUR, halogen-free, black	
11913	RST 5-3-VAD 1A-1-3-226/1.5 M	3	PUR, halogen-free, black	
11915	RST 5-3-VAD 1A-1-3-226/2 M	3	PUR, halogen-free, black	
11917	RST 5-3-VAD 1A-1-3-226/5 M	3	PUR, halogen-free, black	
47019	RST 5-3-VAD 1A-1-3-241/0.3 M	3	PUR, halogen-free, welding spark proof, orange	
11918	RST 5-3-VAD 1A-1-3-241/0.6 M	3	PUR, halogen-free, welding spark proof, orange	
11919	RST 5-3-VAD 1A-1-3-241/1 M	3	PUR, halogen-free, welding spark proof, orange	
11920	RST 5-3-VAD 1A-1-3-241/1.5 M	3	PUR, halogen-free, welding spark proof, orange	
11921	RST 5-3-VAD 1A-1-3-241/2 M	3	PUR, halogen-free, welding spark proof, orange	
44380	RST 5-3-VAD 1A-1-3-241/5 M	3	PUR, halogen-free, welding spark proof, orange	
47020	RST 5-3-VAD 1F-4-3-226/0.3 M	3	PUR, halogen-free, black	
11922	RST 5-3-VAD 1F-4-3-226/0.6 M	3	PUR, halogen-free, black	
11923	RST 5-3-VAD 1F-4-3-226/1 M	3	PUR, halogen-free, black	
11924	RST 5-3-VAD 1F-4-3-226/1.5 M	3	PUR, halogen-free, black	
11925	RST 5-3-VAD 1F-4-3-226/2 M	3	PUR, halogen-free, black	
47022	RST 5-3-VAD 1F-4-3-226/5 M	3	PUR, halogen-free, black	
46905	RST 5-3-VAD 1F-4-3-241/0.3 M	3	PUR, halogen-free, welding spark proof, orange	
11110	RST 5-3-VAD 1F-4-3-241/0.6 M	3	PUR, halogen-free, welding spark proof, orange	
11927	RST 5-3-VAD 1F-4-3-241/1 M	3	PUR, halogen-free, welding spark proof, orange	
11109	RST 5-3-VAD 1F-4-3-241/1.5 M	3	PUR, halogen-free, welding spark proof, orange	
11929	RST 5-3-VAD 1F-4-3-241/2 M	3	PUR, halogen-free, welding spark proof, orange	
46906	RST 5-3-VAD 1F-4-3-241/5 M	3	PUR, halogen-free, welding spark proof, orange	
27464	RST 5-VAD 3C-4-1-228/0.3 M	5	PUR, halogen-free, black	
12061	RST 5-VAD 3C-4-1-228/0.6 M	5	PUR, halogen-free, black	
12062	RST 5-VAD 3C-4-1-228/1 M	5	PUR, halogen-free, black	
12063	RST 5-VAD 3C-4-1-228/1.5 M	5	PUR, halogen-free, black	
12064	RST 5-VAD 3C-4-1-228/2 M	5	PUR, halogen-free, black	
18252	RST 5-VAD 3C-4-1-228/5 M	5	PUR, halogen-free, black	
11107	RST 5-VAD 3C-4-1-259/0.3 M	5	PUR, halogen-free, welding spark proof, orange	
11106	RST 5-VAD 3C-4-1-259/0.6 M	5	PUR, halogen-free, welding spark proof, orange	
11105	RST 5-VAD 3C-4-1-259/1 M	5	PUR, halogen-free, welding spark proof, orange	
11104	RST 5-VAD 3C-4-1-259/1.5 M	5	PUR, halogen-free, welding spark proof, orange	
11103	RST 5-VAD 3C-4-1-259/2 M	5	PUR, halogen-free, welding spark proof, orange	
11102	RST 5-VAD 3C-4-1-259/5 M	5	PUR, halogen-free, welding spark proof, orange	
11101	RST 5-VAD 3C-4-2-228/0.3 M	5	PUR, halogen-free, black	
12074	RST 5-VAD 3C-4-2-228/0.6 M	5	PUR, halogen-free, black	
12075	RST 5-VAD 3C-4-2-228/1 M	5	PUR, halogen-free, black	
12076	RST 5-VAD 3C-4-2-228/1.5 M	5	PUR, halogen-free, black	
12077	RST 5-VAD 3C-4-2-228/2 M	5	PUR, halogen-free, black	
14866	RST 5-VAD 3C-4-2-228/5 M	5	PUR, halogen-free, black	
11106	RST 5-VAD 3C-4-2-259/0.3 M	5	PUR, halogen-free, welding spark proof, orange	
11099	RST 5-VAD 3C-4-2-259/0.6 M	5	PUR, halogen-free, welding spark proof, orange	
11098	RST 5-VAD 3C-4-2-259/1 M	5	PUR, halogen-free, welding spark proof, orange	
12080	RST 5-VAD 3C-4-2-259/1.5 M	5	PUR, halogen-free, welding spark proof, orange	
11105	RST 5-VAD 3C-4-2-259/5 M	5	PUR, halogen-free, welding spark proof, orange	






Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 to Valve Connectors as per DIN EN 175301-803, Type B

Technical Information

Product Description		
Order Designation	RST-VBD	RST-VB
		
Description	Actuator cordset, with self-locking screw coupling to valve connector as per DIN EN 175301-803, type B, 3-pin, protection circuit using varistor (yellow LED)	Actuator cordset, M12 male, with self-locking screw coupling and valve connector based on DIN EN 175301-803, type B, 3-pin, protection circuit using varistor (yellow LED)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12), DIN EN 175301-803 (valve connector)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	RST: TPU, VBD/VB: PBT	
Contact Material/Surface Finish	RST: CuZn, nickel underlay and gold-plated, VBD/VB: CuZn, nickel-plated and tin-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	24 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin	VBD 1A-1-1	VBD 1A-1-2	VB 1A-1-1	VB 1A-1-2
 <p>1 = n.c. 2 = n.c. 3 = blue 4 = brown 5 = green/yellow</p>	 <p>1</p>	 <p>2</p>	 <p>1</p>	 <p>2</p>
			1 = brown 2 = blue ⊕ = green/yellow	

Circuit Diagram



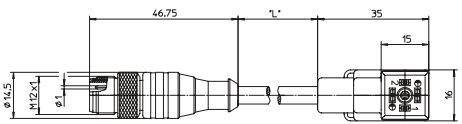
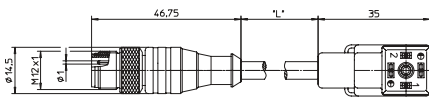
VBD 1A/VB 1A


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11965	RST 5-3-VBD 1A-1-1-226/0.3 M	3	PUR, halogen-free, black	
11966	RST 5-3-VBD 1A-1-1-226/0.6 M	3	PUR, halogen-free, black	
11967	RST 5-3-VBD 1A-1-1-226/1 M	3	PUR, halogen-free, black	
11968	RST 5-3-VBD 1A-1-1-226/1.5 M	3	PUR, halogen-free, black	
11969	RST 5-3-VBD 1A-1-1-226/2 M	3	PUR, halogen-free, black	
43829	RST 5-3-VBD 1A-1-1-226/5 M	3	PUR, halogen-free, black	
46908	RST 5-3-VBD 1A-1-1-241/0.3 M	3	PUR, halogen-free and welding spark proof, orange	
11970	RST 5-3-VBD 1A-1-1-241/0.6 M	3	PUR, halogen-free and welding spark proof, orange	
11971	RST 5-3-VBD 1A-1-1-241/1 M	3	PUR, halogen-free and welding spark proof, orange	
11104	RST 5-3-VBD 1A-1-1-241/1.5 M	3	PUR, halogen-free and welding spark proof, orange	
11973	RST 5-3-VBD 1A-1-1-241/2 M	3	PUR, halogen-free and welding spark proof, orange	
46909	RST 5-3-VBD 1A-1-1-241/5 M	3	PUR, halogen-free and welding spark proof, orange	
11985	RST 5-3-VBD 1A-1-2-226/0.3 M	3	PUR, halogen-free, black	
11986	RST 5-3-VBD 1A-1-2-226/0.6 M	3	PUR, halogen-free, black	
11987	RST 5-3-VBD 1A-1-2-226/1 M	3	PUR, halogen-free, black	
11988	RST 5-3-VBD 1A-1-2-226/1.5 M	3	PUR, halogen-free, black	
11989	RST 5-3-VBD 1A-1-2-226/2 M	3	PUR, halogen-free, black	
43831	RST 5-3-VBD 1A-1-2-226/5 M	3	PUR, halogen-free, black	
11103	RST 5-3-VBD 1A-1-2-241/0.3 M	3	PUR, halogen-free and welding spark proof, orange	
11990	RST 5-3-VBD 1A-1-2-241/0.6 M	3	PUR, halogen-free and welding spark proof, orange	
11991	RST 5-3-VBD 1A-1-2-241/1 M	3	PUR, halogen-free and welding spark proof, orange	
11992	RST 5-3-VBD 1A-1-2-241/1.5 M	3	PUR, halogen-free and welding spark proof, orange	
11993	RST 5-3-VBD 1A-1-2-241/2 M	3	PUR, halogen-free and welding spark proof, orange	
11102	RST 5-3-VBD 1A-1-2-241/5 M	3	PUR, halogen-free and welding spark proof, orange	
43804	RST 5-3-VB 1A-1-1-226/0.3 M	3	PUR, halogen-free, black	
43805	RST 5-3-VB 1A-1-1-226/0.6 M	3	PUR, halogen-free, black	
17686	RST 5-3-VB 1A-1-1-226/1 M	3	PUR, halogen-free, black	
43806	RST 5-3-VB 1A-1-1-226/1.5 M	3	PUR, halogen-free, black	
43807	RST 5-3-VB 1A-1-1-226/2 M	3	PUR, halogen-free, black	
44564	RST 5-3-VB 1A-1-1-226/5 M	3	PUR, halogen-free, black	
43812	RST 5-3-VB 1A-1-2-226/0.3 M	3	PUR, halogen-free, black	
43813	RST 5-3-VB 1A-1-2-226/0.6 M	3	PUR, halogen-free, black	
17685	RST 5-3-VB 1A-1-2-226/1 M	3	PUR, halogen-free, black	
43814	RST 5-3-VB 1A-1-2-226/1.5 M	3	PUR, halogen-free, black	
43815	RST 5-3-VB 1A-1-2-226/2 M	3	PUR, halogen-free, black	
46907	RST 5-3-VB 1A-1-2-226/5 M	3	PUR, halogen-free, black	

Actuator/Sensor Connectors
Double-ended Overmolded Cordset,
M12 to Valve Connectors as per DIN EN 175301-803, Type C

Technical Information

Product Description		
Order Designation	RST-VCD	RST-VC
		
Description	Actuator cordset, M12 male, with self-locking screw coupling to valve connector as per DIN EN 175301-803, type C (8.0 mm), 3-pin, protection circuit using varistor (yellow LED)	Actuator cordset, M12 male, with self-locking screw coupling to valve connector based on DIN EN 175301-803, industrial type (9.4 mm), 3-pin, protection circuit using varistor (yellow LED)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12), DIN EN 175301-803 (valve connector)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	RST: TPU, VCD/VC: PBT	
Contact Material/Surface Finish	RST: CuZn, nickel underlay and gold-plated, VCD/VC: CuZn, nickel-plated and tin-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	≤ 5 mΩ
Operating Voltage	24 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin		VCD 1A/VC 1A	
<p>1 = n.c. 2 = n.c. 3 = blue 4 = brown 5 = green/yellow</p>	<p>1 = brown 2 = blue ⊕ = green/yellow</p>		

Circuit Diagram



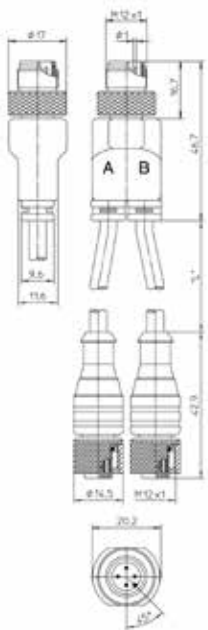
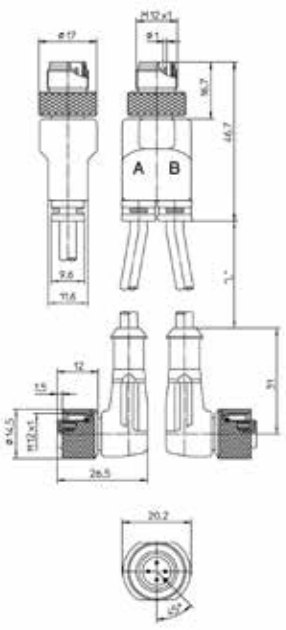
VCD 1A/VC 1A

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
12005	RST 5-3-VCD 1A-1-3-226/0.3 M	3	PUR, halogen-free, black	
12006	RST 5-3-VCD 1A-1-3-226/0.6 M	3	PUR, halogen-free, black	
12007	RST 5-3-VCD 1A-1-3-226/1 M	3	PUR, halogen-free, black	
12008	RST 5-3-VCD 1A-1-3-226/1.5 M	3	PUR, halogen-free, black	
12009	RST 5-3-VCD 1A-1-3-226/2 M	3	PUR, halogen-free, black	
26461	RST 5-3-VCD 1A-1-3-226/5 M	3	PUR, halogen-free, black	
46913	RST 5-3-VCD 1A-1-3-241/0.3 M	3	PUR, halogen-free and welding spark proof, orange	
12011	RST 5-3-VCD 1A-1-3-241/0.6 M	3	PUR, halogen-free and welding spark proof, orange	
12012	RST 5-3-VCD 1A-1-3-241/1 M	3	PUR, halogen-free and welding spark proof, orange	
12013	RST 5-3-VCD 1A-1-3-241/1.5 M	3	PUR, halogen-free and welding spark proof, orange	
12014	RST 5-3-VCD 1A-1-3-241/2 M	3	PUR, halogen-free and welding spark proof, orange	
46914	RST 5-3-VCD 1A-1-3-241/5 M	3	PUR, halogen-free and welding spark proof, orange	
16997	RST 5-3-VC 1A-1-3-226/0.3 M	3	PUR, halogen-free, black	
16996	RST 5-3-VC 1A-1-3-226/0.6 M	3	PUR, halogen-free, black	
16995	RST 5-3-VC 1A-1-3-226/1 M	3	PUR, halogen-free, black	
43833	RST 5-3-VC 1A-1-3-226/1.5 M	3	PUR, halogen-free, black	
43834	RST 5-3-VC 1A-1-3-226/2 M	3	PUR, halogen-free, black	
43835	RST 5-3-VC 1A-1-3-226/5 M	3	PUR, halogen-free, black	

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Duo Connector to 2 x M12 Connectors

Technical Information

Product Description		
Order Designation	ASB 2-RKT ASBA 2-RKT	ASB 2-RKWT
		
Description	Actuator/sensor cordset, M12 Duo male to two M12 female connectors, with self-locking screw coupling, 3-pin. ASBA 2-RKT: with AND circuit	Actuator/sensor cordset, M12 Duo male to two M12 female connectors, angled with self-locking screw coupling, 3-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	ASB 2: CuZn, RK(W)T: CuSn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A per pin, 4 A max. total	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin



Circuit Diagram

ASB 2-RK(W)T

ASBA 2-RKT



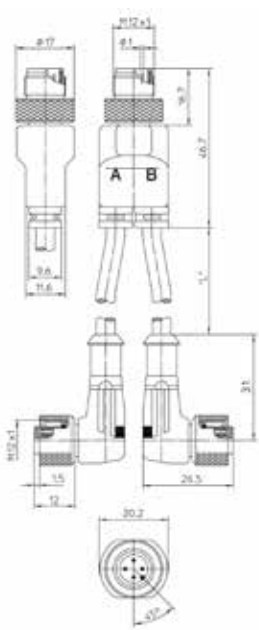
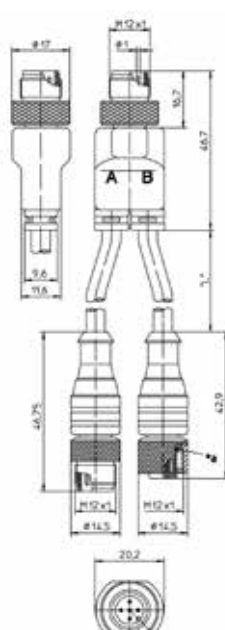


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43546	ASB 2-RKT 4-3-224/1 M	3	PUR, halogen-free, black	
43548	ASB 2-RKT 4-3-224/1.5 M	3	PUR, halogen-free, black	
43550	ASB 2-RKT 4-3-224/2 M	3	PUR, halogen-free, black	
11051	ASB 2-RKT 4-3-251/1 M	3	PUR, halogen-free and welding spark proof, orange	
44169	ASB 2-RKT 4-3-251/1.5 M	3	PUR, halogen-free and welding spark proof, orange	
64502	ASB 2-RKT 4-3-251/2 M	3	PUR, halogen-free and welding spark proof, orange	
46949	ASB 2-RKWT 4-3-224/1 M	3	PUR, halogen-free, black	
46950	ASB 2-RKWT 4-3-224/1.5 M	3	PUR, halogen-free, black	
46951	ASB 2-RKWT 4-3-224/2 M	3	PUR, halogen-free, black	
11059	ASB 2-RKWT 4-3-251/1 M	3	PUR, halogen-free and welding spark proof, orange	
46952	ASB 2-RKWT 4-3-251/1.5 M	3	PUR, halogen-free and welding spark proof, orange	
46953	ASB 2-RKWT 4-3-251/2 M	3	PUR, halogen-free and welding spark proof, orange	
58881	ASBA 2-RKT 4-3-224/1 M	3	PUR, halogen-free, black	
62073	ASBA 2-RKT 4-3-224/1.5 M	3	PUR, halogen-free, black	
1259	ASBA 2-RKT 4-3-224/2 M	3	PUR, halogen-free, black	

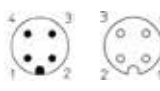

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Duo Connector to 2 x M12 Connectors

Technical Information

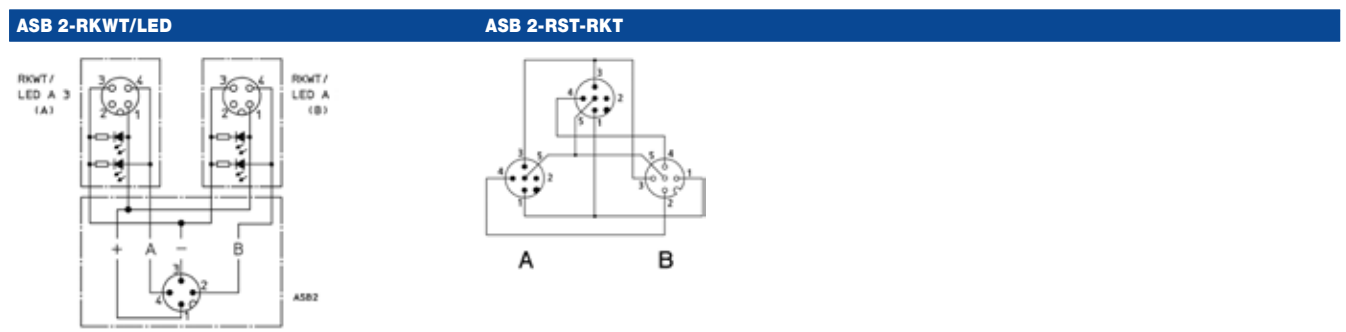
Product Description		
Order Designation	ASB 2-RKWT/LED	ASB 2-RST-RKT
		
Description	Actuator/sensor cordset, M12 Duo male to two M12 female connectors, angled, with LED operation and function indicators, self-locking screw coupling, 3-pin	Actuator/sensor cordset, M12 Duo male, with one M12 male (0.2 m) and one M12 female, self-locking screw coupling, 5-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	ASB 2: CuZn, RK(W)T: CuSn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	24 V DC	50 V AC/60 V DC
Rated Current	4 A per pin, 4 A max. total	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable







Pin Assignment

3-pin	5-pin
 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black s = green/yellow</p>

Circuit Diagram


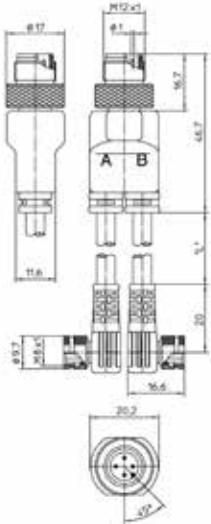


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43584	ASB 2-RKWT/LED A 4-3-224/1 M	3	PUR, halogen-free, black	
43589	ASB 2-RKWT/LED A 4-3-224/1.5 M	3	PUR, halogen-free, black	
17999	ASB 2-RKWT/LED A 4-3-224/2 M	3	PUR, halogen-free, black	
44615	ASB 2-RST 5-228/0.2-RKT 5-228/1 M	5	PUR, halogen-free, black	
44697	ASB 2-RST 5-228/0.2-RKT 5-228/1.5 M	5	PUR, halogen-free, black	
44703	ASB 2-RST 5-228/0.2-RKT 5-228/2 M	5	PUR, halogen-free, black	

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Duo Connector to 2 x M8 Connectors

Technical Information

Product Description	
Order Designation	ASB 2-RKMVV/LED
	
Description	Actuator/sensor cordset, M12 Duo male to two M8 female connectors, angled, with LED operation and function indicators, self-locking screw coupling, 3-pin
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101 (M12), IEC 61076-2-104 (M8)
Approvals	-
Technical Data	
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA/TPU
Contact Material/Surface Finish	ASB 2: CuZn, RKMVV: CuSn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	24 V DC
Rated Current	4 A per cable, 4 A max. total
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable

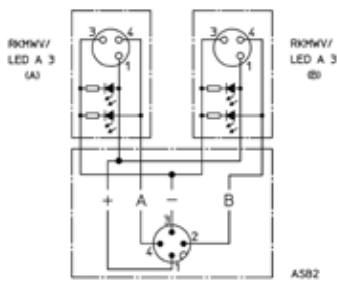
Pin Assignment

3-pin



Circuit Diagram

ASB 2-RKMVV/LED



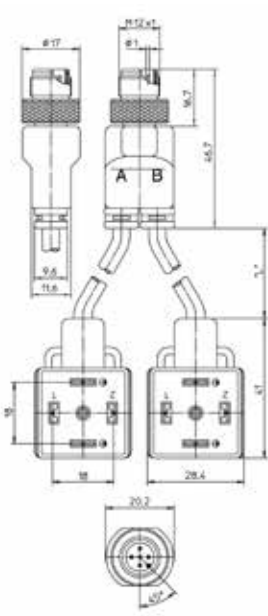
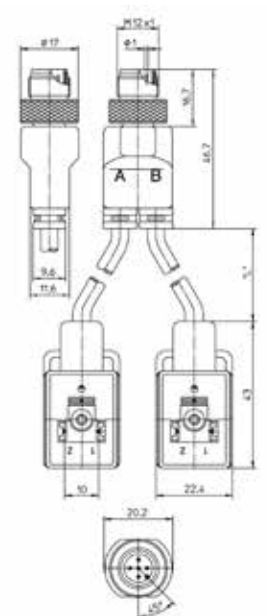


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43529	ASB 2-RKMVV/LED A 3-224/1 M	3	PUR, halogen-free, black	
43535	ASB 2-RKMVV/LED A 3-224/1.5 M	3	PUR, halogen-free, black	
43539	ASB 2-RKMVV/LED A 3-224/2 M	3	PUR, halogen-free, black	

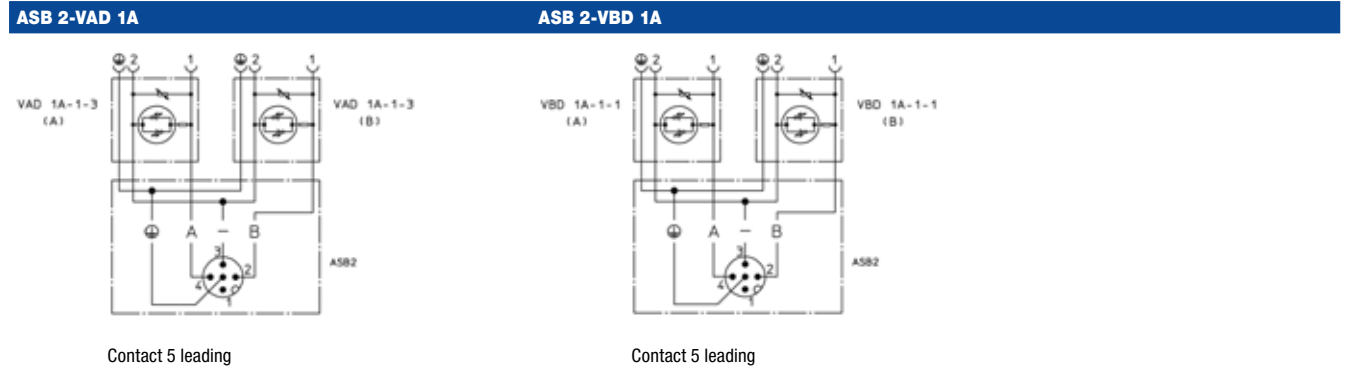
Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Duo Connector to 2 x Valve Connectors

Technical Information







Product Description		
Order Designation	ASB 2-VAD 1A	ASB 2-VBD 1A
		
Description	Actuator cordset, M12 male duo with self-locking screw coupling and two valve connectors as per DIN EN 175301-803, type A, 5-pin	Actuator cordset, M12 male duo, with self-locking screw coupling and two valve connectors as per DIN EN 175301-803, type B, 5-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12), DIN EN 175301-803 (valve connector)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	ASB: TPU, VAD/VBD: PBT	
Contact Material/Surface Finish	ASB: CuZn, nickel underlay and gold-plated, VAD/VBD: CuZn, nickel-plated and tin-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	24 V AC/DC	
Rated Current	4 A per cable, 4 A max. total	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Circuit Diagram



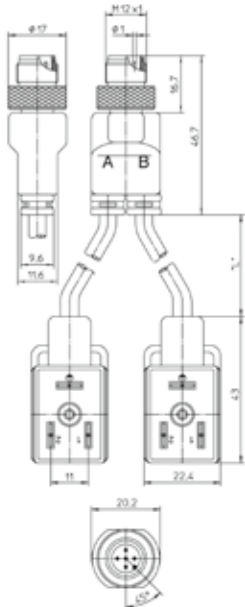
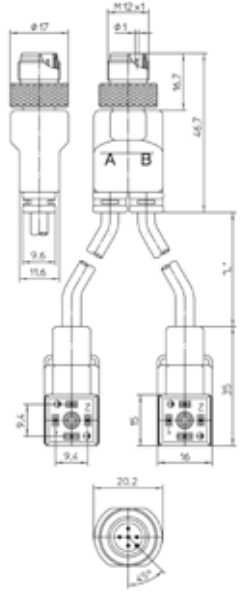


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43785	ASB 2-VAD 1A-1-3-226/1 M	5	PUR, halogen-free, black	
43787	ASB 2-VAD 1A-1-3-226/1.5 M	5	PUR, halogen-free, black	
43788	ASB 2-VAD 1A-1-3-226/2 M	5	PUR, halogen-free, black	
43792	ASB 2-VBD 1A-1-1-226/1 M	5	PUR, halogen-free, black	
43793	ASB 2-VBD 1A-1-1-226/1.5 M	5	PUR, halogen-free, black	
43794	ASB 2-VBD 1A-1-1-226/2 M	5	PUR, halogen-free, black	

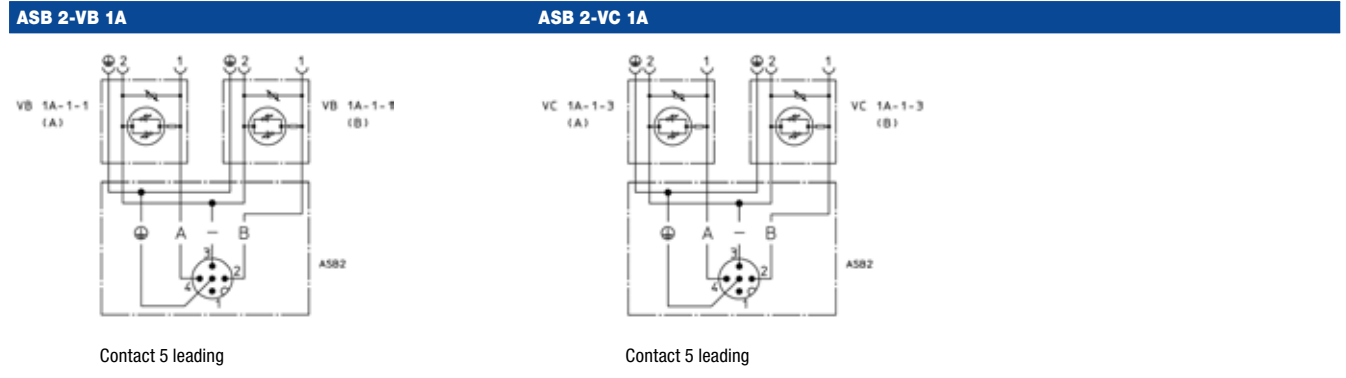
Actuator/Sensor Connectors Double-ended Overmolded Cordset, M12 Duo Connector with 2 x Valve Connectors

Technical Information

Product Description		
Order Designation	ASB 2-VB 1A	ASB 2-VC 1A
		
Description	Actuator cordset, M12 male duo, with self-locking screw coupling and two valve connectors as per DIN EN 175301-803, type B, industrial type, 5-pin	Actuator cordset, M12 male duo, with self-locking screw coupling and two valve connectors as per DIN EN 175301-803, type C, industrial type (9.4 mm), 5-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12), DIN EN 175301-803 (valve connector)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	ASB: TPU, VB/VC: PBT	
Contact Material/Surface Finish	ASB: CuZn, nickel underlay and gold-plated, VB/VC: CuZn, nickel-plated and tin-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	≤ 10 mΩ
Operating Voltage	24 V AC/DC	
Rated Current	4 A per cable, 4 A max. total	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Circuit Diagram



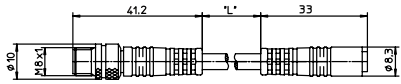
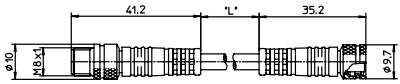


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43789	ASB 2-VB 1A-1-1-226/1 M	5	PUR, halogen-free, black	
43790	ASB 2-VB 1A-1-1-226/1.5 M	5	PUR, halogen-free, black	
8275	ASB 2-VB 1A-1-1-226/2 M	5	PUR, halogen-free, black	
43798	ASB 2-VC 1A-1-3-226/1 M	5	PUR, halogen-free, black	
43799	ASB 2-VC 1A-1-3-226/1.5 M	5	PUR, halogen-free, black	
43800	ASB 2-VC 1A-1-3-226/2 M	5	PUR, halogen-free, black	

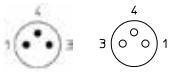

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M8 Male Connector to M8 Female Connector, Standard

Technical Information


































Product Description		
Order Designation	RSMV-RKM	RSMV-RKMV
		
Description	Cordset for actuators and sensors, M8 male with self-locking screw coupling, straight, to M8 female with snap-in coupling, straight 3-pin	Cordset for actuators and sensors, M8 male with self-locking screw coupling, straight to M8 female connector, straight, with self-locking screw coupling, 3 and 4-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104 (M8)	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA/TPU	
Contact Material/Surface Finish	RSMV: CuZn, (RKM(V): CuSn, nickel underlay and gold-plated	
Screw Coupling Material	RSMV: CuZn, nickel-plated, RKM: –	CuZn, nickel-plated
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>



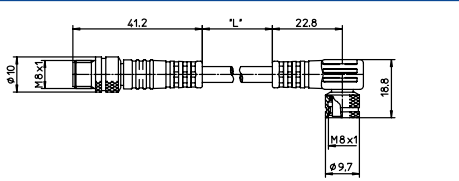
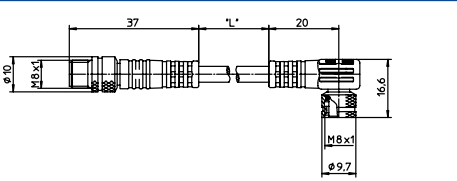
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43625	RSMV 3-RKM 3-224/0.6 M	3	PUR, halogen-free, black	  
43636	RSMV 3-RKM 3-224/1 M	3	PUR, halogen-free, black	  
43637	RSMV 3-RKM 3-224/2 M	3	PUR, halogen-free, black	  
43660	RSMV 3-RKMV 3-224/0.6 M	3	PUR, halogen-free, black	   
40279	RSMV 3-RKMV 3-224/1 M	3	PUR, halogen-free, black	   
45312	RSMV 3-RKMV 3-224/2 M	3	PUR, halogen-free, black	   
53770	RSMV 4-RKMV 4-225/0.6 M	4	PUR, halogen-free, black	   
53771	RSMV 4-RKMV 4-225/1 M	4	PUR, halogen-free, black	   
52190	RSMV 4-RKMV 4-225/2 M	4	PUR, halogen-free, black	   

Additional cable versions with PVC jacket (STL 06/07) available.

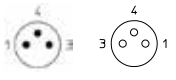

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M8 Male Connector to M8 Female Connector, Standard

Technical Information

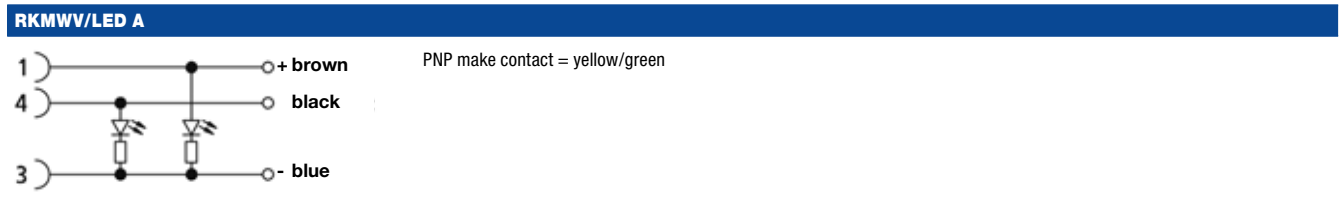
Product Description		
Order Designation	RSMV-RKMVV	RSMV-RKMVV/LED
		
Description	Cordset for actuators and sensors, M8 male, with self-locking screw coupling, straight, to M8 female, with snap-in coupling, angled 3 and 4-pin	Cordset for actuators and sensors, M8 male, with self-locking screw coupling, straight design, to M8 female, with self-locking screw coupling, angled, LED operation and function indicators (PNP make contact), 3-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104 (M8)	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA/TPU	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Circuit Diagram



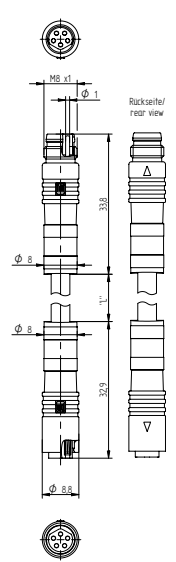
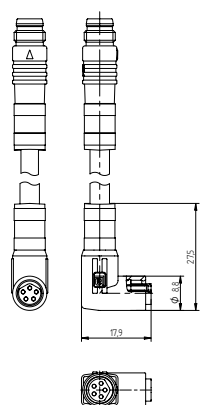


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43655	RSMV 3-RKMWV 3-224/0.6 M	3	PUR, halogen-free, black	UL, E, P, S
43656	RSMV 3-RKMWV 3-224/1 M	3	PUR, halogen-free, black	UL, E, P, S
43658	RSMV 3-RKMWV 3-224/2 M	3	PUR, halogen-free, black	UL, E, P, S
43678	RSMV 3-RKMWV/LED A 3-224/0.6 M	3	PUR, halogen-free, black	UL, E, P, S
43679	RSMV 3-RKMWV/LED A 3-224/1 M	3	PUR, halogen-free, black	UL, E, P, S
43680	RSMV 3-RKMWV/LED A 3-224/2 M	3	PUR, halogen-free, black	UL, E, P, S
50317	RSMV 4-RKMWV 4-225/0.6 M	4	PUR, halogen-free, black	UL, E, P, S
58829	RSMV 4-RKMWV 4-225/1 M	4	PUR, halogen-free, black	UL, E, P, S
47807	RSMV 4-RKMWV 4-225/2 M	4	PUR, halogen-free, black	UL, E, P, S

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M8 Male Connectors to M8 Female Connectors

Technical Information

Product Description		
Order Designation	RSM 5-RKM 5	RSM 5-RKMW 5
		
Description	Double ended cordset for sensor/actuator applications combining M8 male, straight, 5-pin, with snap/screw (fixed) attachment and M8 female, straight, 5-pin with snap attachment	Double ended cordset for sensor/actuator applications combining M8 male, straight, 5-pin, with snap/screw (fixed) attachment and M8 female, angled, 5-pin with snap attachment
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 to +90°C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	RSM 5: CuZn nickel-plated (screw), PA (snap) RKM 5: TPU (snap)	
Mechanical Data		
Degree of Protection	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts / IP67 only when screwed)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	30 V AC/DC	
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

M8, Male and Female, 5-poles



Order Information

















































Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894001	RSM 5-RKM 5-671/0.3 M	5	PVC, black	0.34 mm ²	UL
934894002	RSM 5-RKM 5-671/0.6 M	5	PVC, black	0.34 mm ²	UL
934894003	RSM 5-RKM 5-671/1 M	5	PVC, black	0.34 mm ²	UL
934894004	RSM 5-RKM 5-671/2 M	5	PVC, black	0.34 mm ²	UL
934894005	RSM 5-RKM 5-671/3 M	5	PVC, black	0.34 mm ²	UL
934894006	RSM 5-RKM 5-671/5 M	5	PVC, black	0.34 mm ²	UL
934894007	RSM 5-RKM 5-671/10 M	5	PVC, black	0.34 mm ²	UL
934894008	RSM 5-RKM 5-671/15 M	5	PVC, black	0.34 mm ²	UL
934894009	RSM 5-RKM 5-507/0.3 M	5	PVC, black	0.25 mm ²	UL
934894010	RSM 5-RKM 5-507/0.6 M	5	PVC, black	0.25 mm ²	UL
934894011	RSM 5-RKM 5-507/1 M	5	PVC, black	0.25 mm ²	UL
934894012	RSM 5-RKM 5-507/2 M	5	PVC, black	0.25 mm ²	UL
934894013	RSM 5-RKM 5-507/3 M	5	PVC, black	0.25 mm ²	UL
934894014	RSM 5-RKM 5-507/5 M	5	PVC, black	0.25 mm ²	UL
934894015	RSM 5-RKM 5-507/10 M	5	PVC, black	0.25 mm ²	UL
934894016	RSM 5-RKM 5-507/15 M	5	PVC, black	0.25 mm ²	UL

Actuator/Sensor Connectors
Double-ended Overmolded Cordset, M8 Male Connectors to M8 Female Connectors (continued)

Order Information




Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894017	RSM 5-RKM 5-293/0.3 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894018	RSM 5-RKM 5-293/0.6 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894019	RSM 5-RKM 5-293/1 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894020	RSM 5-RKM 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894021	RSM 5-RKM 5-293/3 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894022	RSM 5-RKM 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894023	RSM 5-RKM 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894024	RSM 5-RKM 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894025	RSM 5-RKM 5-506/0.3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894026	RSM 5-RKM 5-506/0.6 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894027	RSM 5-RKM 5-506/1 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894028	RSM 5-RKM 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894029	RSM 5-RKM 5-506/3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894030	RSM 5-RKM 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894031	RSM 5-RKM 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894032	RSM 5-RKM 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894101	RSM 5-RKMW 5-671/0.3 M	5	PVC, black	0.34 mm ²	 
934894102	RSM 5-RKMW 5-671/0.6 M	5	PVC, black	0.34 mm ²	 
934894103	RSM 5-RKMW 5-671/1 M	5	PVC, black	0.34 mm ²	 
934894104	RSM 5-RKMW 5-671/2 M	5	PVC, black	0.34 mm ²	 
934894105	RSM 5-RKMW 5-671/3 M	5	PVC, black	0.34 mm ²	 
934894106	RSM 5-RKMW 5-671/5 M	5	PVC, black	0.34 mm ²	 
934894107	RSM 5-RKMW 5-671/10 M	5	PVC, black	0.34 mm ²	 
934894108	RSM 5-RKMW 5-671/15 M	5	PVC, black	0.34 mm ²	 
934894109	RSM 5-RKMW 5-507/0.3 M	5	PVC, black	0.25 mm ²	 
934894110	RSM 5-RKMW 5-507/0.6 M	5	PVC, black	0.25 mm ²	 
934894111	RSM 5-RKMW 5-507/1 M	5	PVC, black	0.25 mm ²	 
934894112	RSM 5-RKMW 5-507/2 M	5	PVC, black	0.25 mm ²	 
934894113	RSM 5-RKMW 5-507/3 M	5	PVC, black	0.25 mm ²	 
934894114	RSM 5-RKMW 5-507/5 M	5	PVC, black	0.25 mm ²	 
934894115	RSM 5-RKMW 5-507/10 M	5	PVC, black	0.25 mm ²	 
934894116	RSM 5-RKMW 5-507/15 M	5	PVC, black	0.25 mm ²	 

Order Information

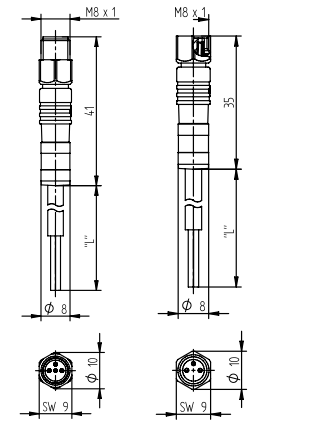
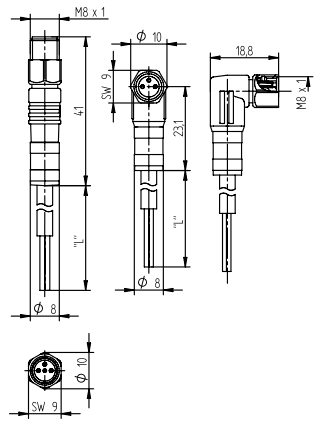
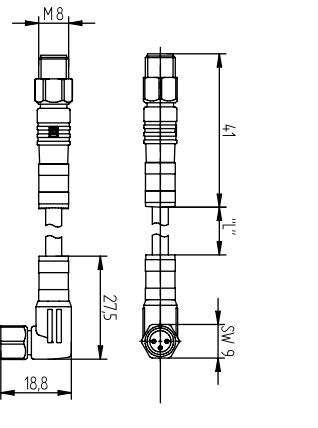
Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894117	RSM 5-RKMW 5-293/0.3 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894118	RSM 5-RKMW 5-293/0.6 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894119	RSM 5-RKMW 5-293/1 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894120	RSM 5-RKMW 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894121	RSM 5-RKMW 5-293/3 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894122	RSM 5-RKMW 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894123	RSM 5-RKMW 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894124	RSM 5-RKMW 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894125	RSM 5-RKMW 5-506/0.3 M	5	PUR, halogen-free, black	0.25 mm ²	  
934894126	RSM 5-RKMW 5-506/0.6 M	5	PUR, halogen-free, black	0.25 mm ²	  
934894127	RSM 5-RKMW 5-506/1 M	5	PUR, halogen-free, black	0.25 mm ²	  
934894128	RSM 5-RKMW 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	  
934894129	RSM 5-RKMW 5-506/3 M	5	PUR, halogen-free, black	0.25 mm ²	  
934894130	RSM 5-RKMW 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	  
934894131	RSM 5-RKMW 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	  
934894132	RSM 5-RKMW 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	  

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M8 Male Connector to M8 Female Connector, Food & Beverage

Technical Information

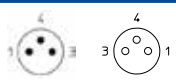

Product Description			
Order Designation	WRSMV-WRKMV	WRSMV-WRKMVW	WRSMV-WRKMVW/LED
			
Description	Cordset for actuators and sensors, M8 male with screw coupling, straight to M8 female straight, with screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin	Cordset for actuators and sensors, M8 male with screw coupling, straight, to M8 female angled, with screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin	Cordset for actuators and sensors, M8 male with screw coupling, straight to M8 female, angled, with screw coupling and overmolded cable, stainless steel hexagonal nut, with LED operation and function indicators, 3-pin
Note	Especially suitable for use in wash-down applications.		
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104 (M8)		
Approvals	UL, ECOLAB		

Technical Data	
Ambient Temperature	-40 °C to +90 °C (as per UL; connectors designed for operating temperatures from -40 °C to +105 °C as per VDE)
Housing Material/Grip	PP
Contact Holder Material	PP
Contact Material/Surface Finish	CuSn, Cu/Au
Screw Coupling Material	Stainless steel
Mechanical Data	
Degree of Protection	IP67, IP68, IP69K (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A
Pollution Degree	3

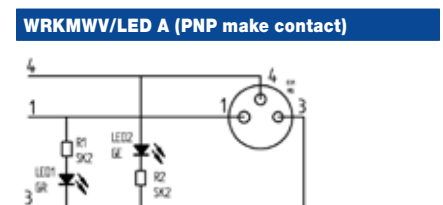
Technical Drawing			
			

L = Standard length of cable

Pin Assignment























































































































































3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Circuit Diagram






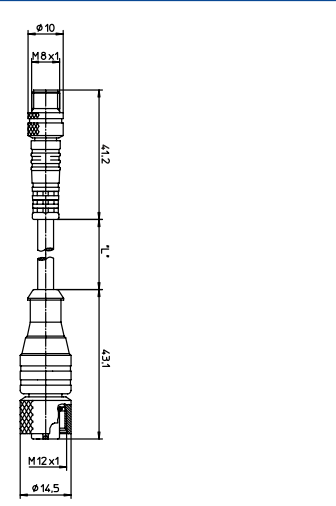
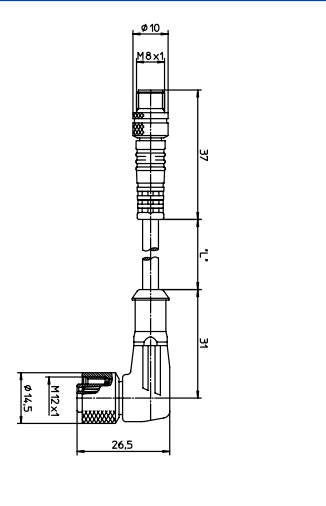
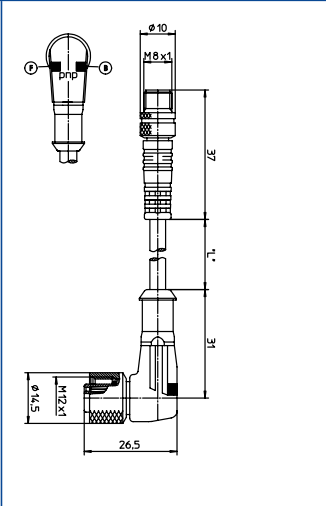
Special circuitry available upon request

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934737049	WRSMV 3-WRKMV 3-520/0.6 M	3	TPE-V, flame-resistant, orange	    
934737050	WRSMV 3-WRKMV 3-520/1 M	3	TPE-V, flame-resistant, orange	    
934737051	WRSMV 3-WRKMV 3-520/2 M	3	TPE-V, flame-resistant, orange	    
934737052	WRSMV 3-WRKMV 3-520/5 M	3	TPE-V, flame-resistant, orange	    
934737053	WRSMV 3-WRKMV 3-520/10 M	3	TPE-V, flame-resistant, orange	    
934737054	WRSMV 3-WRKMV 3-520/15 M	3	TPE-V, flame-resistant, orange	    
934737061	WRSMV 4-WRKMV 4-521/0.6 M	4	TPE-V, flame-resistant, orange	    
934737062	WRSMV 4-WRKMV 4-521/1 M	4	TPE-V, flame-resistant, orange	    
934737063	WRSMV 4-WRKMV 4-521/2 M	4	TPE-V, flame-resistant, orange	    
934737064	WRSMV 4-WRKMV 4-521/5 M	4	TPE-V, flame-resistant, orange	    
934737065	WRSMV 4-WRKMV 4-521/10 M	4	TPE-V, flame-resistant, orange	    
934737066	WRSMV 4-WRKMV 4-521/15 M	4	TPE-V, flame-resistant, orange	    
934737055	WRSMV 3-WRKMVW 3-520/0.6 M	3	TPE-V, flame-resistant, orange	    
934737056	WRSMV 3-WRKMVW 3-520/1 M	3	TPE-V, flame-resistant, orange	    
934737057	WRSMV 3-WRKMVW 3-520/2 M	3	TPE-V, flame-resistant, orange	    
934737058	WRSMV 3-WRKMVW 3-520/5 M	3	TPE-V, flame-resistant, orange	    
934737059	WRSMV 3-WRKMVW 3-520/10 M	3	TPE-V, flame-resistant, orange	    
934737060	WRSMV 3-WRKMVW 3-520/15 M	3	TPE-V, flame-resistant, orange	    
934737067	WRSMV 4-WRKMVW 4-521/0.6 M	4	TPE-V, flame-resistant, orange	    
934737068	WRSMV 4-WRKMVW 4-521/1 M	4	TPE-V, flame-resistant, orange	    
934737069	WRSMV 4-WRKMVW 4-521/2 M	4	TPE-V, flame-resistant, orange	    
934737070	WRSMV 4-WRKMVW 4-521/5 M	4	TPE-V, flame-resistant, orange	    
934737071	WRSMV 4-WRKMVW 4-521/10 M	4	TPE-V, flame-resistant, orange	    
934737072	WRSMV 4-WRKMVW 4-521/15 M	4	TPE-V, flame-resistant, orange	    
934753001	WRSMV 3-WRKMVW/LED A 3-520/0.6 M	3	TPE-V, flame-resistant, orange	    
934753002	WRSMV 3-WRKMVW/LED A 3-520/1 M	3	TPE-V, flame-resistant, orange	    
934753003	WRSMV 3-WRKMVW/LED A 3-520/2 M	3	TPE-V, flame-resistant, orange	    
934753004	WRSMV 3-WRKMVW/LED A 3-520/5 M	3	TPE-V, flame-resistant, orange	    
934753005	WRSMV 3-WRKMVW/LED A 3-520/10 M	3	TPE-V, flame-resistant, orange	    
934753006	WRSMV 3-WRKMVW/LED A 3-520/15 M	3	TPE-V, flame-resistant, orange	    

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M8 Male Connector to M12 Female Connector, Standard

Technical Information

Product Description			
Order Designation	RSMV-RKT	RSMV-RKWT	RSMV-RKWT/LED
			
Description	Cordset for actuators and sensors, M8 male, straight, with self-locking screw coupling, to M12 female connector, straight, with self-locking screw coupling, 3-pin	Cordset for actuators and sensors, M8 male, straight, with self-locking screw coupling, to M12 female, with self-locking screw coupling, angled, 3-pin	Cordset for actuators and sensors, M8 male, straight, with self-locking screw coupling, to M12 female angled, with self-locking screw coupling, LED operation and function indicators, 3-pin
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104 (M8), IEC 61076-2-101 (M12)		
Approvals	UL		
Technical Data			
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range		
Housing Material/Grip	TPU		
Contact Holder Material	PA/TPU		
Contact Material/Surface Finish	RSMV: CuZn, RK(W)T: CuSn, nickel underlay and gold-plated		
Screw Coupling Material	CuZn, nickel-plated		
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC		24 V DC
Rated Current	4 A		
Pollution Degree	3		
Technical Drawing			
			

L = Standard length of cable

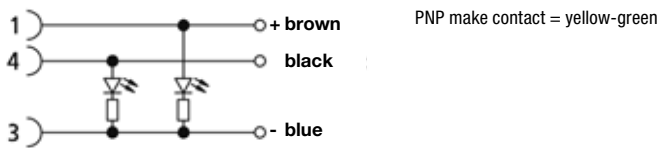
Pin Assignment

3-pin



Circuit Diagram

RKWT/LED A




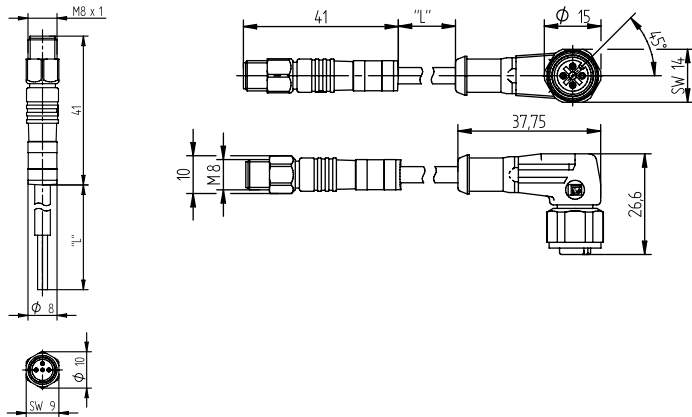
Special circuitry available upon request

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43687	RSMV 3-RKT 4-3-224/0.6 M	3	PUR, halogen-free, black	UL, E, P, S
43688	RSMV 3-RKT 4-3-224/1 M	3	PUR, halogen-free, black	UL, E, P, S
43689	RSMV 3-RKT 4-3-224/2 M	3	PUR, halogen-free, black	UL, E, P, S
43691	RSMV 3-RKWT 4-3-224/0.6 M	3	PUR, halogen-free, black	UL, E, P, S
43692	RSMV 3-RKWT 4-3-224/1 M	3	PUR, halogen-free, black	UL, E, P, S
43693	RSMV 3-RKWT 4-3-224/2 M	3	PUR, halogen-free, black	UL, E, P, S
43699	RSMV 3-RKWT/LED A 4-3-224/0.6 M	3	PUR, halogen-free, black	UL, E, P, S
43700	RSMV 3-RKWT/LED A 4-3-224/1 M	3	PUR, halogen-free, black	UL, E, P, S
43701	RSMV 3-RKWT/LED A 4-3-224/2 M	3	PUR, halogen-free, black	UL, E, P, S

Actuator/Sensor Connectors Double-ended Overmolded Cordset, M8 Male Connector to M12 Female Connector, Food & Beverage

Technical Information

Product Description	
Order Designation	WRSMV-WRKWT/LED
	
Description	Cordset for actuators and sensors, M8 male, straight, with screw coupling, to M12 female, angled, with screw coupling and overmolded cable, stainless steel hexagonal nut, with LED operation and function indicators, 3-pin
Note	Especially suitable for use in wash-down applications.
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104 (M8), IEC 61076-2-101 (M12)
Approvals	UL, ECOLAB
Technical Data	
Ambient Temperature	M8 Standard: -40 °C to +90 °C (as per UL; connectors designed for operating temperatures from -40 °C to +105 °C as per VDE), M12 LED-Type: -30 °C to +85 °C
Housing Material/Grip	PP
Contact Holder Material	PP
Contact Material/Surface Finish	CuSn, Cu/Au
Screw Coupling Material	Stainless steel
Mechanical Data	
Degree of Protection	IP67, IP68, IP69K (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	24 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable

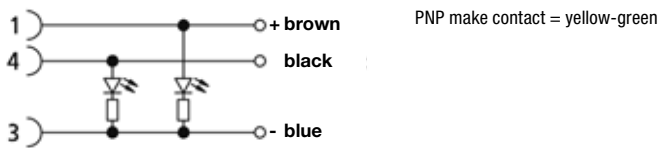
Pin Assignment

3-pin



Circuit Diagram

RKWT/LED A





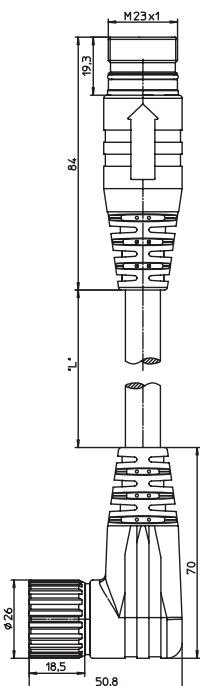
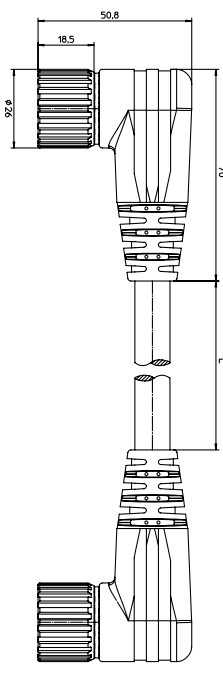
Special circuitry available upon request

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934753013	WRSMV 3-WRKWT/LED A 4-3-520/0.6 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753014	WRSMV 3-WRKWT/LED A 4-3-520/1 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753015	WRSMV 3-WRKWT/LED A 4-3-520/2 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753016	WRSMV 3-WRKWT/LED A 4-3-520/5 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753017	WRSMV 3-WRKWT/LED A 4-3-520/10 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C
934753018	WRSMV 3-WRKWT/LED A 4-3-520/15 M	3	TPE-V, flame-resistant, orange	ECO LAB UL C



Actuator/Sensor Connectors Double-ended Overmolded Cordset, M23 Male Connector to M23 Female Connector

Technical Information



Product Description		
Order Designation	RSUF-RKWU	RSWU-RKWU
		
Description	Cordset, M23 male, straight, with screw coupling and external thread, to M23 female, angled, with screw coupling and union nut, 19-pin	Cordset, M23 male, angled, to M23 female, angled, with screw coupling and union nut, 12 and 19-pin
Note	Can be used to connect actuator/sensor boxes.	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	-20 °C to +100 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	120 V AC/DC	120 V AC/DC
Rated Current	8 A (pin Ø 1 mm), 10 A (pin Ø 1.5 mm)	8 A
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable


































M23 Male Connector Pin Assignment

12-pin	19-pin		
 <ul style="list-style-type: none"> 1 = white 2 = green 3 = yellow 4 = gray 5 = gray/pink 6 = red/blue 7 = white/green 8 = brown/green 9 = blue 10 = blue 11 = brown 12 = yellow/green 	 <ul style="list-style-type: none"> 1 = violet 2 = red 3 = gray 4 = red/blue 5 = green 6 = blue 7 = gray/pink 8 = white/green 9 = white/yellow 10 = white/gray 11 = black 12 = yellow/green 13 = yellow/brown 14 = brown/green 15 = white 16 = yellow 17 = pink 18 = gray/brown 19 = brown 		

M23 Female Connector Pin Assignment




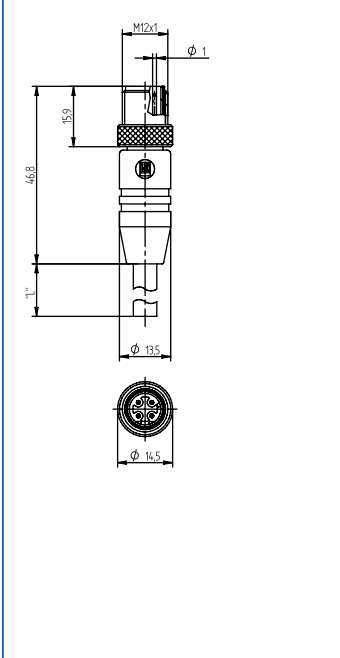
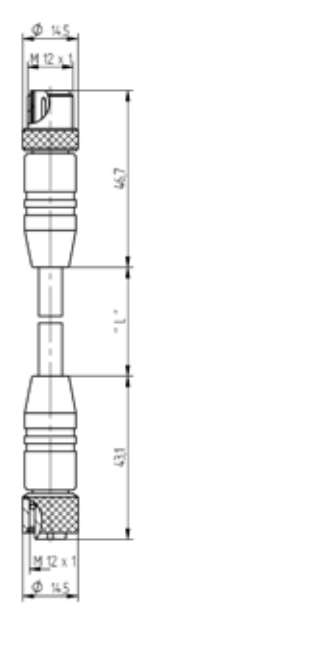
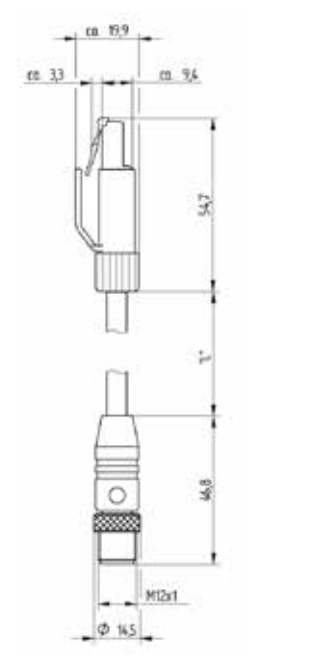
12-pin	19-pin		
 <ul style="list-style-type: none"> 1 = white 2 = green 3 = yellow 4 = gray 5 = gray/pink 6 = red/blue 7 = white/green 8 = brown/green 9 = blue 10 = blue 11 = brown 12 = yellow/green 	 <ul style="list-style-type: none"> 1 = violet 2 = red 3 = gray 4 = red/blue 5 = green 6 = blue 7 = gray/pink 8 = white/green 9 = white/yellow 10 = white/gray 11 = black 12 = yellow/green 13 = yellow/brown 14 = brown/green 15 = white 16 = yellow 17 = pink 18 = gray/brown 19 = brown 		

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
94806	RSUF 19-RKWU 19-355/2 M	19	PUR, halogen-free, black	   
94807	RSUF 19-RKWU 19-355/5 M	19	PUR, halogen-free, black	   
94808	RSUF 19-RKWU 19-355/10 M	19	PUR, halogen-free, black	   
60719	RSWU 12-RKWU 12-256/5 M	12	PUR, halogen-free, black	  
60716	RSWU 12-RKWU 12-256/10 M	12	PUR, halogen-free, black	  
60717	RSWU 12-RKWU 12-256/15 M	12	PUR, halogen-free, black	  
60718	RSWU 12-RKWU 12-256/20 M	12	PUR, halogen-free, black	  
934636120	RSWU 19-RKWU 19-242/0.5 M	19	PUR, halogen-free, black	  
108920	RSWU 19-RKWU 19-242/1 M	19	PUR, halogen-free, black	  
1738	RSWU 19-RKWU 19-242/3 M	19	PUR, halogen-free, black	  

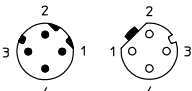
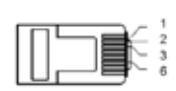
Data Connectors Double-ended Overmolded M12 Data Cordsets – Industrial Ethernet

Technical Information













Product Description			
Order Designation	0985 342 100	0985 342 116	0985 342 104
			
Description	Cordset, M12-M12, Industrial Ethernet data cordset as per ProfiNet type C, double-ended overmolded with M12 male, straight, D-coding, 4-pin, 360° shield connected to knurled nut	Cordset, M12-M12, Industrial Ethernet data cordset as per ProfiNet type C, double-ended overmolded with M12 male, straight, and M12 female, straight, D-coding, 4-pin, 360° shield connected to knurled screw/nut	Cordset, M12-RJ45, Industrial Ethernet data cordset, double-ended overmolded with M12 male, straight, D-coding as per IEC 61076-2-101, 360° shield connected to knurled nut, and RJ45 male connector, 4-pin
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101 (M12-D)		
Approvals	UL		–
Technical Data			
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range		-20 °C to +70 °C, mind cable temperature range
Housing Material/Grip	TPU		
Contact Holder Material	PBT		TPU (M12), PC (RJ45)
Contact Material/Surface Finish	CuSn, gold-plated		
Screw Coupling Material	CuZn, nickel-plated		CuZn, nickel-plated (M12)
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)		IP20 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data			
Contact Resistance	≤ 5 mΩ		≤ 5 mΩ (M12), <10 mΩ (RJ45)
Operating Voltage	50 V AC/60 V DC		50 V
Rated Current	4 A		4 A (M12), 1.5 A (RJ45)
Pollution Degree	3		–
Technical Drawing			
			

L = Standard length of cable

Pin Assignment



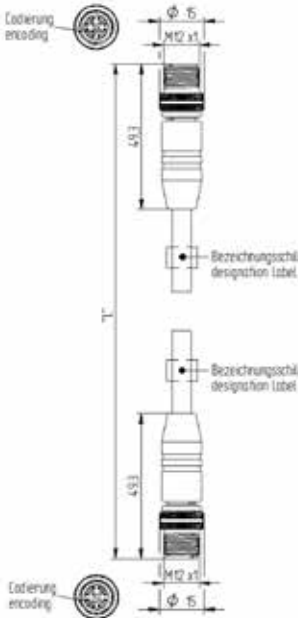
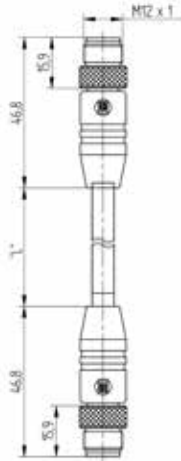
4-pin, D-coding	4-pin, RJ45
 <p>1 = yellow 2 = white 3 = orange 4 = blue</p>	 <p>1 = yellow 2 = orange 3 = white 6 = blue</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
69873	0985 342 100/1 M	4D	PUR, halogen-free, green	
64367	0985 342 100/2 M	4D	PUR, halogen-free, green	
68412	0985 342 100/3 M	4D	PUR, halogen-free, green	
66462	0985 342 100/5 M	4D	PUR, halogen-free, green	
934715002	0985 342 116/1 M	4D	PUR, halogen-free, green	
934715003	0985 342 116/2 M	4D	PUR, halogen-free, green	
934715033	0985 342 116/3 M	4D	PUR, halogen-free, green	
934715004	0985 342 116/5 M	4D	PUR, halogen-free, green	
12115	0985 342 104/1 M	4D	PUR, halogen-free, green	
12117	0985 342 104/2 M	4D	PUR, halogen-free, green	
12119	0985 342 104/3 M	4D	PUR, halogen-free, green	
12121	0985 342 104/5 M	4D	PUR, halogen-free, green	

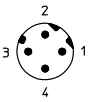

Data Connectors Double-ended Overmolded M12 Data Cordsets – Industrial Ethernet

Technical Information













Product Description		
Order Designation	0985 478 601	RSTS 8X-RSTS 8X BRSTS 8X-BRSTS 8X
		
Description	Cordset, M12-M12, Industrial Ethernet data cordset for gigabit applications, double-ended overmolded with M12 male, X-coding, 8-pin	Cat6A cordset, double-ended overmolded for Industrial Ethernet gigabit applications (supports data transmission rates of up to 10 gigabits), with M12 male, 360° shield connected to knurled nut, X-coding, 8-pin RSTS 8X = version with UL approval BRSTS 8X = Rail approved version
Note	Transmission properties for Cat6 and Cat6A as per IEC PAS 61076-2-109	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-109 (M12-X)	
Approvals	–	RSTS 8X: UL, BRSTS 8X: DIN EN 45545-2, DIN EN 50467, DIN EN 61373, based on DIN EN 50155
Technical Data		
Ambient Temperature	-30 °C to +90 °C (connectors), mind cable temperature range	RSTS 8X: -40 °C to +80 °C BRSTS 8X: -40 °C to +85 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU	PA
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	0.5 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment



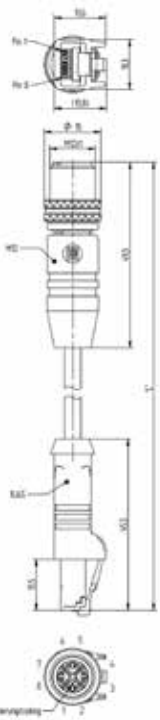
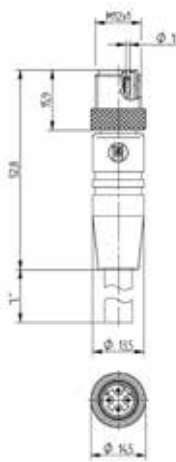
4-pin, D-coding	8-pin, X-coding
 <p>1 = yellow 2 = white 3 = orange 4 = blue</p>	 <p>1 = white/orange 5 = white/brown 2 = orange 6 = brown 3 = white/green 7 = white/blue 4 = green 8 = blue</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934637028	0985 478 601/1 M	8X	PUR, halogen-free, black	
934637029	0985 478 601/2 M	8X	PUR, halogen-free, black	
3305	0985 478 601/3 M	8X	PUR, halogen-free, black	
934637030	0985 478 601/5 M	8X	PUR, halogen-free, black	
934809005	RSTS 8X-RSTS 8X-478/2 M	8X	PUR, halogen-free, black	
934809006	RSTS 8X-RSTS 8X-478/5 M	8X	PUR, halogen-free, black	
934809007	RSTS 8X-RSTS 8X-478/10 M	8X	PUR, halogen-free, black	
934809008	RSTS 8X-RSTS 8X-478/15 M	8X	PUR, halogen-free, black	
934809013	BRSTS 8X-BRSTS 8X-552/2 M	8X	X-FRNC/LSNH, halogen-free, blue	
934809014	BRSTS 8X-BRSTS 8X-552/5 M	8X	X-FRNC/LSNH, halogen-free, blue	
934809015	BRSTS 8X-BRSTS 8X-552/10 M	8X	X-FRNC/LSNH, halogen-free, blue	
934809016	BRSTS 8X-BRSTS 8X-552/15 M	8X	X-FRNC/LSNH, halogen-free, blue	

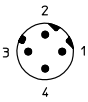


Data Connectors
Double-ended Overmolded M12 Data Cordsets – Industrial Ethernet

Technical Information































Product Description		
Order Designation	0985 478 604	0985 508 121
		
Description	Cordset, M12-RJ45, Industrial Ethernet data cordset for gigabit applications, double-ended overmolded with one M12 male, straight (X-coding, 8-pin) and one RJ45 male	M12 cordset with railways authorities license, Industrial Ethernet data cordset Cat5 (PROFINET), Double-ended overmolded with M12 male connector, straight, 4-pin, D-coding
Note	Transmission properties for Cat6 and Cat6A as per IEC 61076-2-109.	Especially suitable for railway applications.
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-109 (M12-X), IEC 60603-7 (RJ45)	IEC 61076-2-101
Approvals	UL	EN 50155, IEC 61373, DIN CLC/TS 50467, DIN CEN/TS 45545, DIN 5510
Technical Data		
Ambient Temperature	-20 °C to +70 °C (connectors), mind cable temperature range	-40 °C to +85 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU	PA
Contact Holder Material	M12: PA, RJ45: PC	PBT
Contact Material/Surface Finish	CuSn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	M12: IP67, RJ45: IP20 (only when mated with Hirschmann/Lumberg counterparts)	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/DC	50 V AC/60 V DC
Rated Current	0.5 A	4 A
Pollution Degree	M12: 3, RJ45: 1	3
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

4-pin, D-coding	8-pin, X-coding	8-pin, RJ45
 <p>1 = yellow 2 = white 3 = orange 4 = blue</p>	 <p>1 = white/orange 2 = orange 3 = white/green 4 = green 5 = white/brown 6 = brown 7 = white/blue 8 = blue</p>	 <p>1 = white/orange 2 = orange 3 = white/green 4 = blue 5 = white/blue 6 = green 7 = white/brown 8 = brown</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
12384	RSTS 8X-RJ45 G-478/1 M	8X	PUR, halogen-free, black	    
12385	RSTS 8X-RJ45 G-478/2 M	8X	PUR, halogen-free, black	    
10438	RSTS 8X-RJ45 G-478/5 M	8X	PUR, halogen-free, black	    
934688019	0985 508 121/1 M	4D	PUR, halogen-free, black	    
934688007	0985 508 121/2 M	4D	PUR, halogen-free, black	    
934688008	0985 508 121/5 M	4D	PUR, halogen-free, black	    

Data Connectors Double-ended Overmolded M12 Data Cordsets – PROFIBUS

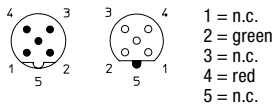
Technical Information

Product Description			
Order Designation	0975 254 101	0975 254 130	0975 254 134
Description	PROFIBUS signal cable double-ended overmolded with M12 male, straight, and M12 female, straight 5-pin, B-coding, 360° shield connected to knurled screw/nut	PROFIBUS signal cable double-ended overmolded with M12 male, angled, B-coding, and M12 female, angled, B-coding, with screw coupling, 5-pin, 360° shield connected to knurled screw/nut	PROFIBUS signal cable, double-ended overmolded with M12 male, angled, B-coding, and M12 female, straight, with screw coupling, 5-pin, 360° shield connected to knurled screw/nut
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	UL		
Technical Data			
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range		
Housing Material/Grip	TPU		TPU (male connector), PB (female connector)
Contact Holder Material	PBT		
Contact Material/Surface Finish	CuZn, gold-plated	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated		
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	IP67, IP68, IP69K (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC		
Rated Current	4 A		
Pollution Degree	3		
Technical Drawing			








































L = Standard length of cable

Pin Assignment

5-pin, B-coding



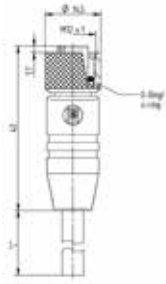
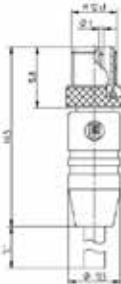


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11015	0975 254 101/0.3 M	5B	PUR, halogen-free, violet	   
51066	0975 254 101/0.6 M	5B	PUR, halogen-free, violet	   
11016	0975 254 101/1 M	5B	PUR, halogen-free, violet	   
11018	0975 254 101/2 M	5B	PUR, halogen-free, violet	   
12589	0975 254 101/3 M	5B	PUR, halogen-free, violet	   
11019	0975 254 101/5 M	5B	PUR, halogen-free, violet	   
27086	0975 254 101/10 M	5B	PUR, halogen-free, violet	   
28406	0975 254 101/15 M	5B	PUR, halogen-free, violet	   
47927	0975 254 101/20 M	5B	PUR, halogen-free, violet	   
47822	0975 254 101/25 M	5B	PUR, halogen-free, violet	   
934727001	0975 254 130/0.3 M	5B	PUR, halogen-free, violet	   
934727002	0975 254 130/0.6 M	5B	PUR, halogen-free, violet	   
934727003	0975 254 130/1 M	5B	PUR, halogen-free, violet	   
934727005	0975 254 130/2 M	5B	PUR, halogen-free, violet	   
934727006	0975 254 130/3 M	5B	PUR, halogen-free, violet	   
934727007	0975 254 130/5 M	5B	PUR, halogen-free, violet	   
934727004	0975 254 130/10 M	5B	PUR, halogen-free, violet	   
934727008	0975 254 134/1 M	5B	PUR, halogen-free, violet	   
934727009	0975 254 134/2 M	5B	PUR, halogen-free, violet	   
934727010	0975 254 134/3 M	5B	PUR, halogen-free, violet	   

Data Connectors Double-ended Overmolded M12 Data Cordsets – PROFIBUS

Technical Information









Product Description		
Order Designation	0975 254 104	0975 254 105
		
Description	PROFIBUS signal cable double-ended overmolded/assembled with M12 female, straight, 5-pin, B-coding, and D-sub male, 9-pin, with switchable terminating resistor	PROFIBUS signal cable, double-ended overmolded/assembled with M12 male, straight, 5-pin, B-coding, and D-sub male, 9-pin, with switchable terminating resistor
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12)	
Approvals	–	
Technical Data		
Ambient Temperature	0 °C to +60 °C, mind cable temperature range	
Housing Material/Grip	M12: TPU, ABS: Pre-coppered and nickel plated	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	M12: IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	5 V DC	
Rated Current	M12: 4 A, D-Sub current consumption: max. 12.5 mA	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment




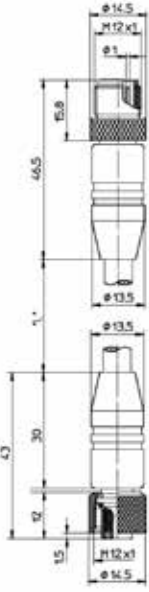
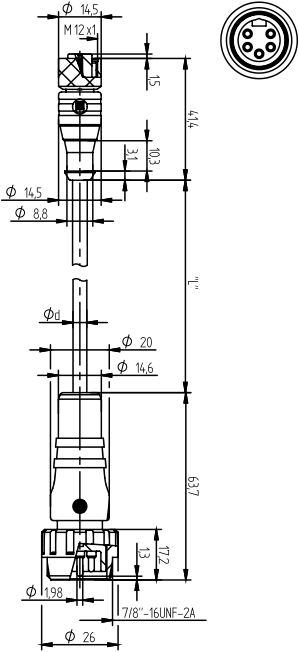
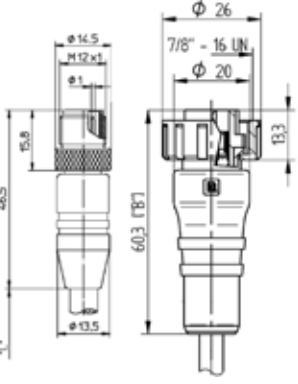
5-pin, B-coding	9-pin, D-sub
 <p>1 = n.c. 2 = green 3 = n.c. 4 = red 5 = n.c.</p>	

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
49301	0975 254 104/1 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	
47811	0975 254 104/2 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	
49254	0975 254 104/3 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	
47938	0975 254 104/5 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	
49255	0975 254 105/1 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	
49296	0975 254 105/2 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	
49297	0975 254 105/3 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	
49298	0975 254 105/5 M	M12: 5B D-Sub: 9	PUR, halogen-free, violet	

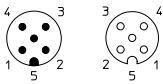
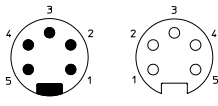
Data Connectors Double-ended Overmolded M12 Data Cordsets – CANopen®/DeviceNet™

Technical Information



















Product Description			
Order Designation	0935 253 103	0935 253 101	0935 253 102
			
Description	CAN/DeviceNet™ thin cable, double-ended overmolded with M12 female, straight, to M12 female, straight, 5-pin	CAN/DeviceNet™ thin cable, double-ended overmolded with 7/8" female, straight, to M12 female, straight, 5-pin	CAN/DeviceNet™ thin cable, double-ended overmolded with M12 male, straight, to 7/8" female, straight, 5-pin
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101 (M12), ANSI/B93.55M-1981 (7/8")		
Approvals	UL	–	–
Technical Data			
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range	M12: -25 °C to +80 °C, 7/8": -40 °C to +90 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU		
Contact Holder Material	TPU		
Contact Material/Surface Finish	CuZn, gold-plated		
Screw Coupling Material	M12: CuZn, nickel-plated, 7/8": PA		
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC		
Rated Current	4 A		
Pollution Degree	3		
Technical Drawing			
			

L = Standard length of cable

Pin Assignment

5-pin, M12	5-pin, 7/8"
 <p>1 = shield 2 = red (+24 V) 3 = black (GDN, 0 V) 4 = white (CAN_H) 5 = blue (CAN_L)</p>	 <p>1 = shield 2 = red (+24 V) 3 = black (GDN, 0 V) 4 = white (CAN_H) 5 = blue (CAN_L)</p>


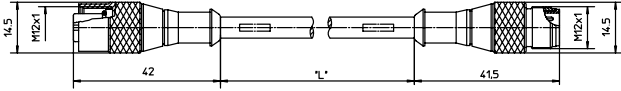
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10964	0935 253 103/0.3 M	5	PUR, halogen-free, black	
63296	0935 253 103/0.6 M	5	PUR, halogen-free, black	
10965	0935 253 103/1 M	5	PUR, halogen-free, black	
10966	0935 253 103/2 M	5	PUR, halogen-free, black	
10967	0935 253 103/3 M	5	PUR, halogen-free, black	
10968	0935 253 103/5 M	5	PUR, halogen-free, black	
26747	0935 253 103/10 M	5	PUR, halogen-free, black	
27866	0935 253 103/15 M	5	PUR, halogen-free, black	
27423	0935 253 103/20 M	5	PUR, halogen-free, black	
45847	0935 253 103/25 M	5	PUR, halogen-free, black	
39651	0935 253 101/1 M	5	PUR, halogen-free, black	
10961	0935 253 101/2 M	5	PUR, halogen-free, black	
39531	0935 253 101/3 M	5	PUR, halogen-free, black	
41457	0935 253 101/5 M	5	PUR, halogen-free, black	
71246	0935 253 102/1 M	5	PUR, halogen-free, black	
10963	0935 253 102/2 M	5	PUR, halogen-free, black	
934637164	0935 253 102/3 M	5	PUR, halogen-free, black	
71250	0935 253 102/5 M	5	PUR, halogen-free, black	

Data Connectors

Double-ended Overmolded M12 Data Cordsets – AS-Interface

Technical Information

Product Description	
Order Designation	0915 034 101
	
Description	AS-Interface cordset, M12 male, straight, to M12 female, straight, with self-locking screw coupling, 4-pin
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	–
Technical Data	
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU, self-extinguishing
Contact Holder Material	TPU, self-extinguishing
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67, IP68 (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable

Pin Assignment

4-pin



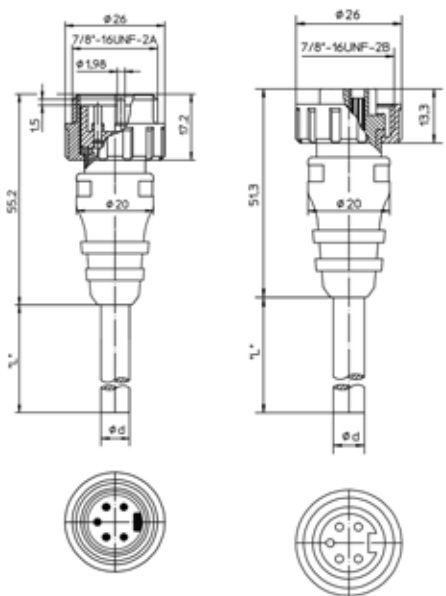


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
29716	0915 034 101/1 M	4	PUR, halogen-free, orange	
29717	0915 034 101/3 M	4	PUR, halogen-free, orange	
29718	0915 034 101/5 M	4	PUR, halogen-free, orange	

Data Connectors Double-ended Overmolded 7/8" Data Cordsets – CANopen®/DeviceNet™

Technical Information

Product Description		
Order Designation	0935 253 301	0935 613 301
		
Description	CAN/DeviceNet™ thin cable, double-ended overmolded cordset 7/8" male, straight, to 7/8" female, straight, 5-pin	CAN/DeviceNet™ thick cable, double-ended overmolded cordset 7/8" male, straight, to 7/8" female, straight, 5-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	ANSI/B93.55M-1981 (7/8")	
Approvals	-	
Technical Data		
Ambient Temperature	-40 °C to +80 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	PA	Anodized aluminum
Mechanical Data		
Degree of Protection	IP67 (2 h at 10 bar; only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	50 V AC/60 V DC
Rated Current	4 A	8 A
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

5-pin






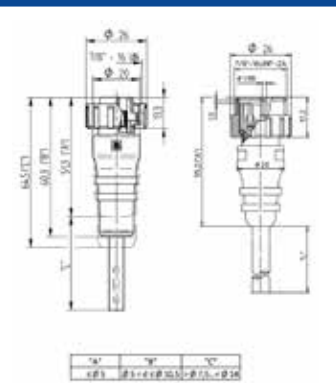
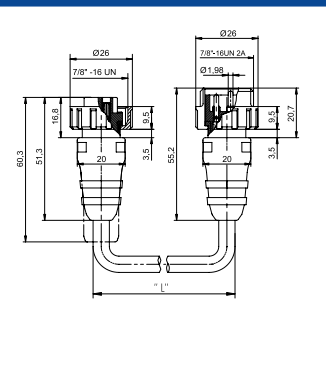
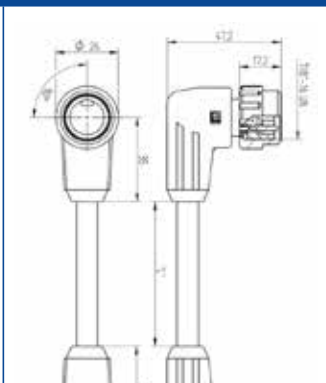
- 1 = shield
- 2 = +24 V, red
- 3 = GND (0 V), black
- 4 = CAN_H, white
- 5 = CAN_L, blue

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10975	0935 253 301/1 M	5	PUR, halogen-free, black	
18196	0935 253 301/3 M	5	PUR, halogen-free, black	
62150	0935 253 301/5 M	5	PUR, halogen-free, black	
53828	0935 613 301/1 M	5	PVC, gray	
2256	0935 613 301/2 M	5	PVC, gray	
71271	0935 613 301/3 M	5	PVC, gray	
2257	0935 613 301/6 M	5	PVC, gray	





Data Connectors
Double-ended Overmolded 7/8" Data Cordsets – CANopen®/DeviceNet™/Ethernet/IP

Technical Information




























Product Description			
Order Designation	0905 203 302	0905 356 312	0905 356 305
			
Description	Single voltage supply, double-ended overmolded cordset 7/8" male, straight, to 7/8" female, straight, 3-pin	Dual voltage supply, double-ended overmolded cordset, 7/8" male, straight, to 7/8" female, straight, 4-pin	Dual voltage supply, double-ended overmolded cordset, 7/8" male, angled, to 7/8" female, angled, 4-pin
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	ANSI/B93.55M-1981 (7/8")		
Approvals	-		
Technical Data			
Ambient Temperature	-40 °C to +90 °C (connectors), mind cable temperature range	-25 °C to +80 °C (connectors), mind cable temperature range	-40 °C to +80 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU		
Contact Holder Material	TPU		
Contact Material/Surface Finish	CuZn, gold-plated		
Screw Coupling Material	PA		
Mechanical Data			
Degree of Protection	IP67 (2 h at 10 bar; only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC		
Rated Current	12 A		9 A
Pollution Degree	3		
Technical Drawing			
			

L = Standard length of cable • "A", "B", "C" = Grip dimensions for the different control cable jacket diameters

Pin Assignment

3-pin		4-pin	
			
	1 = green/yellow 2 = 1 3 = 2		1 = black 1 2 = black 2 3 = green/yellow 4 = black 3


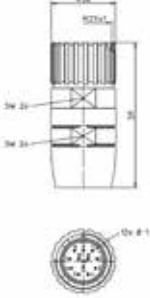
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
12530	0905 203 302/1 M	3	PUR, halogen-free, black	  
12534	0905 203 302/3 M	3	PUR, halogen-free, black	  
12535	0905 203 302/5 M	3	PUR, halogen-free, black	  
74509	0905 356 312/1 M	4	PUR, halogen-free, black	  
99770	0905 356 312/2 M	4	PUR, halogen-free, black	  
88666	0905 356 312/5 M	4	PUR, halogen-free, black	  
10058	0905 356 305/1 M	4	PUR, halogen-free, black	  
10059	0905 356 305/3 M	4	PUR, halogen-free, black	  
934637699	0905 356 305/5 M	4	PUR, halogen-free, black	  

Data Connectors

Double-ended Overmolded M23 Data Cordsets – PROFIBUS

Technical Information

Product Description	
Order Designation	0975 202 201
	
Description	PROFIBUS combi cable, cordset assembled on both ends with M23 male connectors, 12-pin
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 61984
Approvals	-
Technical Data	
Ambient Temperature	-25 °C to +80 °C (connectors), mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PBT
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (IEC 60529; only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	8 A (voltage supply only)
Pollution Degree	3
Technical Drawing	
	

Pin Assignment

12-pin




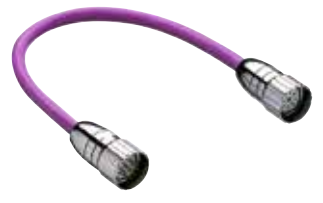

- 1 = n.c.
- 2 = Line A, green
- 3 = n.c.
- 4 = Line B, red
- 5 = n.c.
- 6 = n.c.
- 7 = +24 V, black
- 8 = GND (0 V), blue
- 9 = Ground, green/yellow
- 10 = n.c.
- 11 = n.c.
- 12 = n.c.

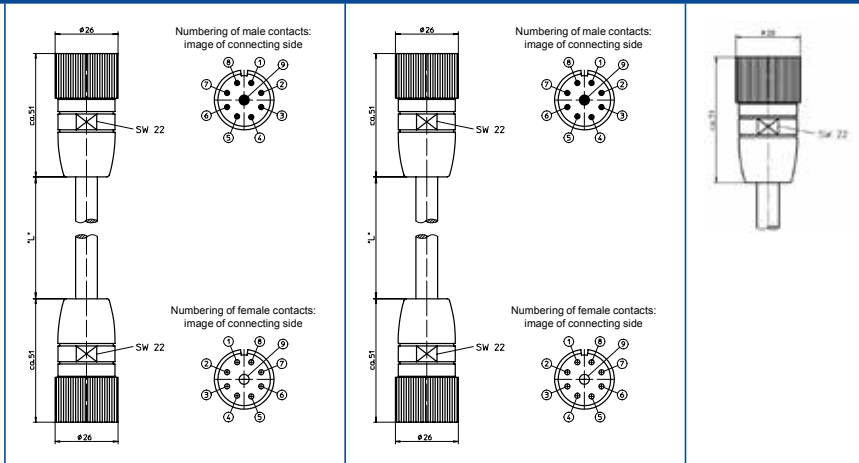
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934636362	0975 202 201/0.3 M	12	PUR, shielded, violet	
5608	0975 202 201/0.6 M	12	PUR, shielded, violet	
934637818	0975 202 201/1 M	12	PUR, shielded, violet	
934636442	0975 202 201/2 M	12	PUR, shielded, violet	
10433	0975 202 201/3 M	12	PUR, shielded, violet	
934637087	0975 202 201/5 M	12	PUR, shielded, violet	
934636378	0975 202 201/10 M	12	PUR, shielded, violet	
934637670	0975 202 201/15 M	12	PUR, shielded, violet	
8542	0975 202 201/20 M	12	PUR, shielded, violet	
1430	0975 202 201/25 M	12	PUR, shielded, violet	

Data Connectors Double-ended Overmolded M23 Data Cordsets – Interbus

Technical Information

Product Description			
Order Designation	0955 283 201	0955 284 201	0955 284 204
			
Description	Interbus installation remote bus cable cordset assembled on both ends, M23 male, straight, to M23 female, straight, 9-pin	Interbus remote bus cable cordset, assembled on both ends, M23 male, straight, to M23 female, straight, 9-pin	Interbus remote bus cable cordset, assembled on both ends, M23 female, straight, to D-sub male, 9-pin
RoHS-Compliant (2011/65/EU)	Yes		
(Construction Type) Standard	DIN EN 61984		
Approvals	-		
Technical Data			
Ambient Temperature	0 °C to +60 °C, mind cable temperature range		
Housing Material/Grip	CuZn, nickel-plated	M23: CuZn, nickel-plated D-sub: zinc die casting, nickel-plated	
Contact Holder Material	PBT		
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated		
Screw Coupling Material	CuZn, nickel-plated		
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC		5 V DC
Rated Current	4.5 A (voltage supply only)	RS 485 signals	
Pollution Degree	3		
Technical Drawing			



L = Standard length of cable

Pin Assignment

9-pin, installation remote bus cable



- 1 = DO, yellow
- 2 = DO, green
- 3 = DI, gray
- 4 = DI, pink
- 5 = COM, brown
- 6 = Ground, green/yellow (1 mm²)
- 7 = +24 V, red (1 mm²)
- 8 = GND (0 V), blue (1 mm²)
- 9 = RBST

Housing = Shield

9-pin, remote bus cable



- 1 = DO, yellow
- 2 = DO, green
- 3 = DI, gray
- 4 = DI, pink
- 5 = COM, brown*
- 6 = n.c.
- 7 = n.c.
- 8 = n.c.
- 9 = RBST

Housing = Shield

* Bridge in D-sub male connector only



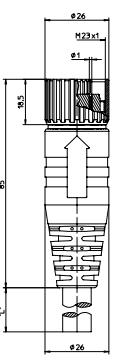
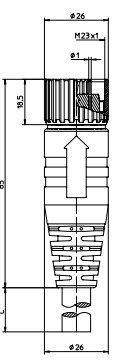
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934636192	0955 283 201/0.3 M	9	PUR, shielded, violet	
934637576	0955 283 201/0.6 M	9	PUR, shielded, violet	
934636193	0955 283 201/1 M	9	PUR, shielded, violet	
934637396	0955 283 201/2 M	9	PUR, shielded, violet	
227	0955 283 201/3 M	9	PUR, shielded, violet	
934636194	0955 283 201/5 M	9	PUR, shielded, violet	
934636197	0955 283 201/10 M	9	PUR, shielded, violet	
934636198	0955 283 201/15 M	9	PUR, shielded, violet	
934637400	0955 283 201/20 M	9	PUR, shielded, violet	
934636677	0955 283 201/25 M	9	PUR, shielded, violet	
934636655	0955 284 201/0.3 M	9	PUR, shielded, violet	
2607	0955 284 201/0.6 M	9	PUR, shielded, violet	
934636817	0955 284 201/1 M	9	PUR, shielded, violet	
934636827	0955 284 201/2 M	9	PUR, shielded, violet	
934636252	0955 284 201/3 M	9	PUR, shielded, violet	
934636828	0955 284 201/5 M	9	PUR, shielded, violet	
934636829	0955 284 201/10 M	9	PUR, shielded, violet	
934636250	0955 284 201/15 M	9	PUR, shielded, violet	
934636249	0955 284 201/20 M	9	PUR, shielded, violet	
934637366	0955 284 201/25 M	9	PUR, shielded, violet	
9077	0955 284 204/1 M	9	PUR, shielded, violet	
10434	0955 284 204/2 M	9	PUR, shielded, violet	
4184	0955 284 204/3 M	9	PUR, shielded, violet	
2721	0955 284 204/5 M	9	PUR, shielded, violet	
664	0955 284 204/10 M	9	PUR, shielded, violet	
4185	0955 284 204/20 M	9	PUR, shielded, violet	
4186	0955 284 204/25 M	9	PUR, shielded, violet	

Data Connectors

Double-ended Overmolded Cordset, M23 Voltage Supply Cables – PROFIBUS/Interbus

Technical Information

Product Description		
Order Designation	RSU 6-RKU A 6-203	RSU 6-RKU 6-204
		
Description	PROFIBUS and Interbus single voltage supply cordset, for output/mixed modules (0970 PSL 2xx), double-ended overmolded with M23 male to M23 female, 6-pin (pins 1, 2, 3 assigned)	PROFIBUS and Interbus dual voltage supply cordset, double-ended overmolded with M23 male to M23 female, 6-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +100 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU, self-extinguishing	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	15 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

6-pin



RSU 6-RKU A 6-203

- 1 = green/yellow
- 2 = black 1
- 3 = black 2
- 4 = n.c.
- 5 = n.c.
- 6 = n.c.

RSU 6-RKU A 6-204



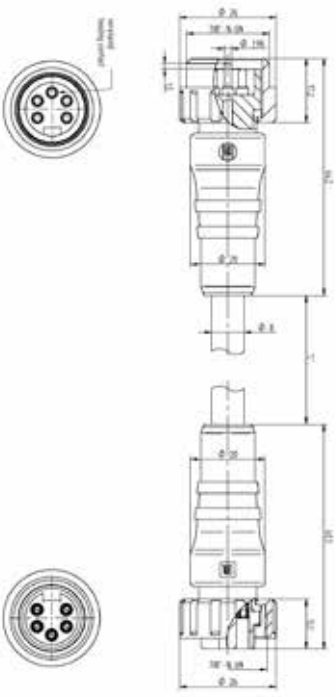
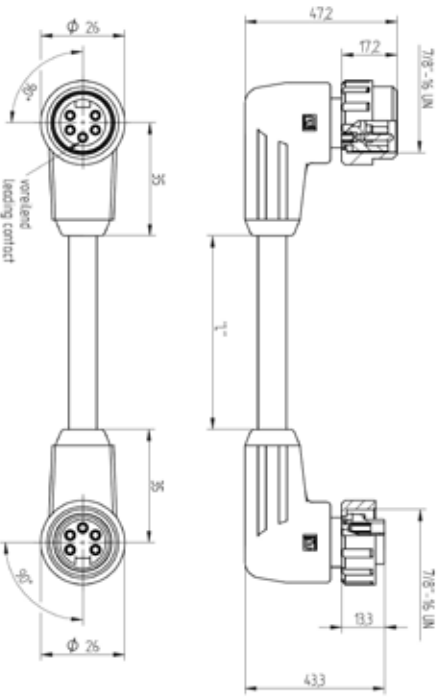
- 1 = green/yellow
- 2 = black 1
- 3 = black 2
- 4 = black 3
- 5 = black 4
- 6 = n.c.

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
61841	RSU 6-RKU A 6-203/0.6 M	6	PUR, black	
47901	RSU 6-RKU A 6-203/1 M	6	PUR, black	
47051	RSU 6-RKU A 6-203/5 M	6	PUR, black	
10114	RSU 6-RKU A 6-203/10 M	6	PUR, black	
10116	RSU 6-RKU A 6-203/15 M	6	PUR, black	
51132	RSU 6-RKU 6-204/0.6 M	6	PUR, halogen-free, black	
47900	RSU 6-RKU 6-204/2 M	6	PUR, halogen-free, black	
47050	RSU 6-RKU 6-204/5 M	6	PUR, halogen-free, black	
47957	RSU 6-RKU 6-204/10 M	6	PUR, halogen-free, black	
10117	RSU 6-RKU 6-204/15 M	6	PUR, halogen-free, black	
47959	RSU 6-RKU 6-204/20 M	6	PUR, halogen-free, black	

Data Connectors Double-ended Overmolded Cordset, 7/8" Voltage Supply Cables – PROFIBUS/PROFINET

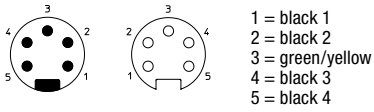
Technical Information

Product Description		
Order Designation	0905 204 302	0905 204 309
		
Description	PROFIBUS/PROFINET dual voltage supply cordset, double-ended overmolded 7/8" male, straight, to 7/8" female, straight, 5-pin	PROFIBUS/PROFINET dual voltage supply, cordset double-ended overmolded 7/8" male, angled, to 7/8" female connector, angled, 5-pin
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	ANSI/B93.55M-1981 (7/8")	
Approvals	-	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (connectors), mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	AgAu, gold-plated	
Screw Coupling Material	PA	
Mechanical Data		
Degree of Protection	IP68 (2 h at 10 bar; only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	9 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

5-pin




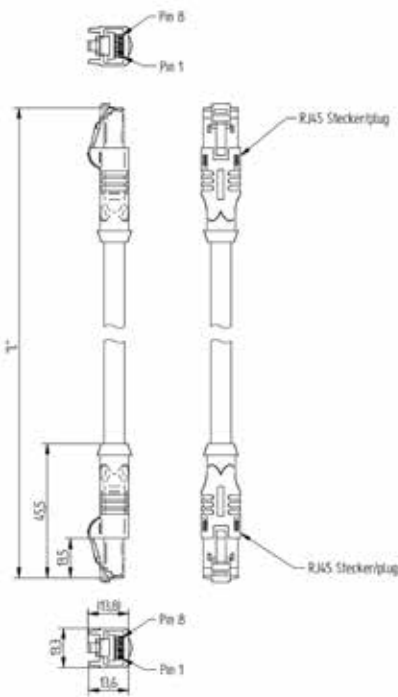
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
28411	0905 204 302/0.3 M	5	PUR, halogen-free, black	
84214	0905 204 302/0.6 M	5	PUR, halogen-free, black	
78774	0905 204 302/1 M	5	PUR, halogen-free, black	
78806	0905 204 302/2 M	5	PUR, halogen-free, black	
94931	0905 204 302/3 M	5	PUR, halogen-free, black	
81778	0905 204 302/5 M	5	PUR, halogen-free, black	
78890	0905 204 302/10 M	5	PUR, halogen-free, black	
78769	0905 204 302/15 M	5	PUR, halogen-free, black	
88733	0905 204 302/20 M	5	PUR, halogen-free, black	
84528	0905 204 309/0.6 M	5	PUR, halogen-free, black	
82065	0905 204 309/5 M	5	PUR, halogen-free, black	
82156	0905 204 309/10 M	5	PUR, halogen-free, black	
11101	0905 204 309/15 M	5	PUR, halogen-free, black	

Data Connectors





















Double-ended Overmolded Cordset, RJ45–RJ45 Data Cordsets – Industrial Ethernet

Technical Information

Product Description	
Order Designation	0985 478 603
	
Description	RJ45-RJ45, Industrial Ethernet data cordset for gigabit applications, double-ended overmolded with RJ45 male connectors
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 60603-7 (RJ45)
Approvals	UL
Technical Data	
Ambient Temperature	-20 °C to +75 °C (connectors), mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PC
Contact Material/Surface Finish	CuZn, gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP20 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V DC
Rated Current	1 A
Pollution Degree	1
Technical Drawing	
	

L = Standard length of cable

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
180	0985 478 603/1 M	8	PUR, halogen-free, black	   
934637613	0985 478 603/2 M	8	PUR, halogen-free, black	   
934637614	0985 478 603/3 M	8	PUR, halogen-free, black	   
934637615	0985 478 603/ 5 M	8	PUR, halogen-free, black	   
934637616	0985 478 603/10 M	8	PUR, halogen-free, black	   



M12 Circular Connectors



Be certain. Belden.

M12 Circular Connectors

These connectors have been used routinely for decades worldwide to connect sensors/actuators with control cabinets or I/O modules. Protected against dust and moisture and resistant to many oils and chemical substances, the M12 connectors provide reliable, long-lasting wiring solutions.

Product Features

- Standardized connector formats, A-, B-, D-, U-, and X-coding
- Wide range of integrated connectors, field attachable and overmolded connectors – with and without LED function indicator, unshielded and shielded
- 3, 4, 5, 6, 8, and 12-pin versions
- Various cable versions
- Versions with degrees of protection IP65, IP67, IP68 to IP69K

Benefits

- Flexible and robust designs offer reliable solutions with a long service life
- Standardized M12 connector technology allows for quick assembly and wiring, increasing productivity
- Low installation workload and simplified maintenance (screwing on/screwing off) save time and money

Applications



Sensor and actuator applications in automation technology in fields ranging from machine and system construction, and transport, to renewable energy and building automation.

Among others, connection of:

- Inductive/capacitive proximity switches
- Light barriers
- Rotary encoders/position encoders
- Valve clusters
- Servomotors
- Machine vision lighting and lamps
 - Communication interface for I/O modules
 - Field bus/network
 - Connection of cameras, information systems
 - Door control for superordinate unit

Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Standard Female Connectors

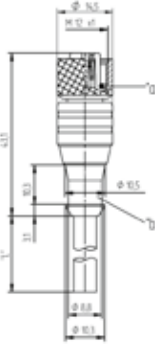
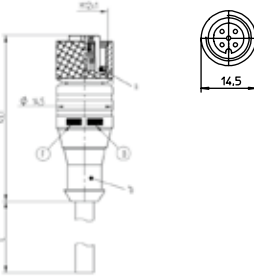

Technical Information

Product Description		
Order Designation	RKT	RKT/LED
		
Description	Actuator/sensor cordset, M12 overmolded female connector, straight, with self-locking screw coupling, 8 to 6-pin version: for connection to plug-in miniature sensor distribution unit type SBS, 12-pin: for connection to plug-in actuator/sensor distribution unit type ASBSM	Actuator/sensor cordset, M12 overmolded female connector, straight, with LED operation and function indicators, self-locking screw coupling
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	

Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn (8 and 12-pin: CuZn), gold over nickel plating	CuSn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated	







Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	

Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5 pin: 50 V AC/60 V DC, 6 to 12-pin: 30 V AC/DC	24 V DC
Rated Current	3 to 5-pin 4 A, 6 to 8-pin 2 A, 12-pin 1.5 A	4 A
Pollution Degree	3	













































Technical Drawing		
		

*a = O-ring • *b = Protective sleeve assembly • L = Standard length of cable
 RKT/LED: B = Green operation indicator • F = Yellow function indicator

Pin Assignment

3-pin	4-pin	5-pin	6-pin
 <ul style="list-style-type: none"> 1 = brown 2 = n.c. 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow (RKT 5-56/...M = gray)	 <ul style="list-style-type: none"> 1 = white 2 = green 3 = yellow 4 = gray 5 = brown 6 = n.c. 7 = blue 8 = n.c.
8-pin	12-pin		
 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pin 7 = blue 8 = shield 	 <ul style="list-style-type: none"> 1 = brown 2 = blue 3 = white 4 = green 5 = pink 6 = yellow 7 = black 8 = gray 9 = red 10 = violet 11 = gray/pink 12 = red/blue 		




































Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11363	RKT 4-3-06/2 M	3	PVC, orange	 
11364	RKT 4-3-06/5 M	3	PVC, orange	
11362	RKT 4-3-06/10 M	3	PVC, orange	
18170	RKT 4-3-224/2 M	3	PUR, halogen-free, black	   
15730	RKT 4-3-224/5 M	3	PUR, halogen-free, black	
15729	RKT 4-3-224/10 M	3	PUR, halogen-free, black	
71267	RKT 4-3-260/2 M	3	PUR, halogen-free, orange	    
71268	RKT 4-3-260/5 M	3	PUR, halogen-free, orange	
71269	RKT 4-3-260/10 M	3	PUR, halogen-free, orange	
303	RKT 4-3-294/2 M	3	PVC, black	 
8927	RKT 4-3-294/5 M	3	PVC, black	
304	RKT 4-3-294/10 M	3	PVC, black	
11348	RKT 4-07/2 M	4	PVC, orange	 
11349	RKT 4-07/5 M	4	PVC, orange	
11347	RKT 4-07/10 M	4	PVC, orange	
11355	RKT 4-225/2 M	4	PUR, halogen-free, black	   
11356	RKT 4-225/5 M	4	PUR, halogen-free, black	
18222	RKT 4-225/10 M	4	PUR, halogen-free, black	
11357	RKT 4-251/2 M	4	PUR, halogen-free, orange	    
11358	RKT 4-251/5 M	4	PUR, halogen-free, orange	
25703	RKT 4-251/10 M	4	PUR, halogen-free, orange	
53582	RKT 4-265/2 M	4	PUR, halogen-free, gray	 
58734	RKT 4-265/5 M	4	PUR, halogen-free, gray	
88351	RKT 4-265/10 M	4	PUR, halogen-free, gray	
393	RKT 4-295/2 M	4	PVC, black	 
76494	RKT 4-295/5 M	4	PVC, black	
76495	RKT 4-295/10 M	4	PVC, black	
699	RKT 4-500/2 M	4	PUR, halogen-free, black	      
700	RKT 4-500/5 M	4	PUR, halogen-free, black	
701	RKT 4-500/10 M	4	PUR, halogen-free, black	
52386	RKT 4-602/2 M	4	TPE, yellow	 
44836	RKT 4-602/5 M	4	TPE, yellow	
11159	RKT 4-602/10 M	4	TPE, yellow	
11381	RKT 5-56/2 M	5	PVC, orange	 
11382	RKT 5-56/5 M	5	PVC, orange	
11380	RKT 5-56/10 M	5	PVC, orange	
109187	RKT 5-72/2 M	5	PUR, black	  
28810	RKT 5-72/5 M	5	PUR, black	
86359	RKT 5-72/10 M	5	PUR, black	
13359	RKT 5-87/2 M	5	PUR, black	 
13357	RKT 5-87/5 M	5	PUR, black	
13358	RKT 5-87/10 M	5	PUR, black	

Special circuitry available upon request


















Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Standard Female Connectors *(continued)*

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11373	RKT 5-228/2 M	5	PUR, halogen-free, black	   
11374	RKT 5-228/5 M	5	PUR, halogen-free, black	
17046	RKT 5-228/10 M	5	PUR, halogen-free, black	
11378	RKT 5-259/2 M	5	PUR, halogen-free, orange	   
11379	RKT 5-259/5 M	5	PUR, halogen-free, orange	
30091	RKT 5-259/10 M	5	PUR, halogen-free, orange	
51487	RKT 5-289/2 M	5	PVC, black	 
51488	RKT 5-289/5 M	5	PVC, black	
51489	RKT 5-289/10 M	5	PVC, black	
4280	RKT 5-296/2 M	5	PVC, black	 
1177	RKT 5-296/5 M	5	PVC, black	
11158	RKT 5-296/10 M	5	PVC, black	
46898	RKT 8-6-268/2 M	6	PUR, halogen-free, orange	     
15718	RKT 8-6-268/5 M	6	PUR, halogen-free, orange	
15727	RKT 8-6-268/10 M	6	PUR, halogen-free, orange	
62977	RKT 8-6-337/2 M	6	PUR, halogen-free, black	   
62982	RKT 8-6-337/5 M	6	PUR, halogen-free, black	
62978	RKT 8-6-337/10 M	6	PUR, halogen-free, black	
11387	RKT 8-09/2 M	8	PUR, orange	 
11388	RKT 8-09/5 M	8	PUR, orange	
11386	RKT 8-09/10 M	8	PUR, orange	
47077	RKT 8-282/2 M	8	PUR, halogen-free, black	    
46772	RKT 8-282/5 M	8	PUR, halogen-free, black	
60548	RKT 8-282/10 M	8	PUR, halogen-free, black	
97356	RKT 8-344/2 M	8	PUR, halogen-free, black	  
97357	RKT 8-344/5 M	8	PUR, halogen-free, black	
80411	RKT 8-344/10 M	8	PUR, halogen-free, black	
105729	RKT 12-346/2 M	12	PUR, halogen-free, black	  
103590	RKT 12-346/5 M	12	PUR, halogen-free, black	
104142	RKT 12-346/10 M	12	PUR, halogen-free, black	

Special circuitry available upon request



Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11393	RKT/LED A 4-3-06/2 M	3	PVC, orange	 
11394	RKT/LED A 4-3-06/5 M	3	PVC, orange	
11392	RKT/LED A 4-3-06/10 M	3	PVC, orange	
43593	RKT/LED A 4-3-224/2 M	3	PUR, halogen-free, black	   
17615	RKT/LED A 4-3-224/5 M	3	PUR, halogen-free, black	
27451	RKT/LED A 4-3-224/10 M	3	PUR, halogen-free, black	
42752	RKT/LED A 4-3-260/2 M	3	PUR, halogen-free, orange	    
42753	RKT/LED A 4-3-260/5 M	3	PUR, halogen-free, orange	
71293	RKT/LED A 4-3-260/10 M	3	PUR, halogen-free, orange	
11402	RKT/LED F 4-07/2 M	4	PVC, orange	 
11403	RKT/LED F 4-07/5 M	4	PVC, orange	
11401	RKT/LED F 4-07/10 M	4	PVC, orange	
43741	RKT/LED F 4-225/2 M	4	PUR, halogen-free, black	   
43742	RKT/LED F 4-225/5 M	4	PUR, halogen-free, black	
43739	RKT/LED F 4-225/10 M	4	PUR, halogen-free, black	

LED A: PNP make contact, LED F: PNP break/make contact
 Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Standard Female Connectors

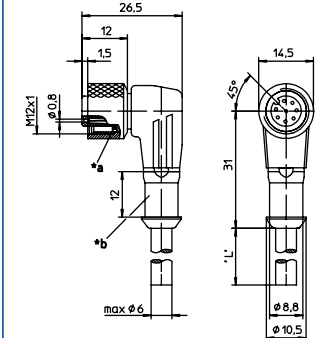
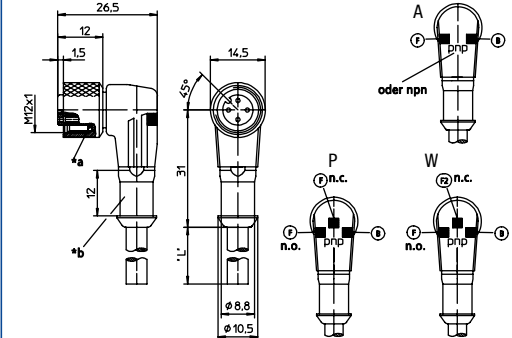
Technical Information

Product Description		
Order Designation	RKWT	RKWT/LED
		
Description	Actuator/sensor cordset, M12 overmolded female connector, angled, with self-locking screw coupling, 8 to 6-pin version: for connection to plug-in miniature sensor distribution unit type SBS	Actuator/sensor cordset, M12 overmolded female connector, angled, with LED operation and function indicators, self-locking screw coupling
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	

Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn (8 and 12-pin CuZn), gold over nickel plating	CuSn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated	







Mechanical Data		
Degree of Protection	IP65, IP67, IP68 (2 h at 10 bar; only when mated to associated counterparts)	

Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 6 to 12-pin: 30 V AC/DC	24 V DC
Rated Current	3 to 5-pin 4 A, 6 to 12-pin 2 A	4 A
Pollution Degree	3	



































































Technical Drawing		
		

*a = 0-ring • *b = Protective sleeve assembly • B = Operation indicator (green) • F = Function indicator (yellow) • F2 = Function indicator (white) • L = Standard length of cable

Pin Assignment

3-pin	4-pin	5-pin	6-pin
 <p>1 = brown 2 = n.c. 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow (RKT 5-56/...M = gray)</p>	 <p>1 = white 2 = green 3 = yellow 4 = gray 5 = brown 6 = n.c. 7 = blue 8 = n.c.</p>
8-pin	12-pin		
 <p>1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = shield</p>	 <p>1 = brown 2 = blue 3 = white 4 = green 5 = pink 6 = yellow 7 = black 8 = gray 9 = red 10 = violet 11 = gray/pink 12 = red/blue</p>		















Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11449	RKWT 4-3-06/2 M	3	PVC, orange	 
11450	RKWT 4-3-06/5 M	3	PVC, orange	 
11448	RKWT 4-3-06/10 M	3	PVC, orange	 
43595	RKWT 4-3-224/2 M	3	PUR, halogen-free, black	   
43597	RKWT 4-3-224/5 M	3	PUR, halogen-free, black	   
29165	RKWT 4-3-224/10 M	3	PUR, halogen-free, black	   
71290	RKWT 4-3-260/2 M	3	PUR, halogen-free, orange	    
71291	RKWT 4-3-260/5 M	3	PUR, halogen-free, orange	    
71292	RKWT 4-3-260/10 M	3	PUR, halogen-free, orange	    
11436	RKWT 4-07/2 M	4	PVC, orange	 
11437	RKWT 4-07/5 M	4	PVC, orange	 
11435	RKWT 4-07/10 M	4	PVC, orange	 
11441	RKWT 4-225/2 M	4	PUR, halogen-free, black	   
11442	RKWT 4-225/5 M	4	PUR, halogen-free, black	   
18158	RKWT 4-225/10 M	4	PUR, halogen-free, black	   
11443	RKWT 4-251/2 M	4	PUR, halogen-free, orange	    
11444	RKWT 4-251/5 M	4	PUR, halogen-free, orange	    
27094	RKWT 4-251/10 M	4	PUR, halogen-free, orange	    

Special circuitry available upon request



























Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Standard Female Connectors (continued)

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11463	RKWT 5-56/2 M	5	PVC, orange	   
11464	RKWT 5-56/5 M	5	PVC, orange	   
11462	RKWT 5-56/10 M	5	PVC, orange	   
40212	RKWT 5-228/2 M	5	PUR, halogen-free, black	   
29637	RKWT 5-228/5 M	5	PUR, halogen-free, black	   
17977	RKWT 5-228/10 M	5	PUR, halogen-free, black	   
10437	RKWT 5-259/2 M	5	PUR, halogen-free, orange	    
58901	RKWT 5-259/5 M	5	PUR, halogen-free, orange	    
5800	RKWT 5-259/10 M	5	PUR, halogen-free, orange	    
46899	RKWT 8-6-268/2 M	6	PUR, halogen-free, orange	    
17128	RKWT 8-6-268/5 M	6	PUR, halogen-free, orange	    
46900	RKWT 8-6-268/10 M	6	PUR, halogen-free, orange	    
62983	RKWT 8-6-337/2 M	6	PUR, halogen-free, black	  
62980	RKWT 8-6-337/5 M	6	PUR, halogen-free, black	  
62981	RKWT 8-6-337/10 M	6	PUR, halogen-free, black	  
13710	RKWT 8-09/2 M	8	PUR, orange	  
13709	RKWT 8-09/5 M	8	PUR, orange	  
13708	RKWT 8-09/10 M	8	PUR, orange	  
64546	RKWT 8-282/2 M	8	PUR, halogen-free, black	  
64547	RKWT 8-282/5 M	8	PUR, halogen-free, black	  
60551	RKWT 8-282/10 M	8	PUR, halogen-free, black	  

Special circuitry available upon request



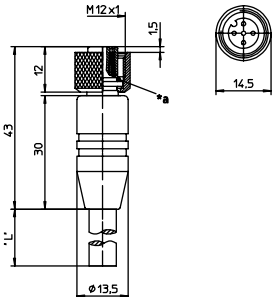
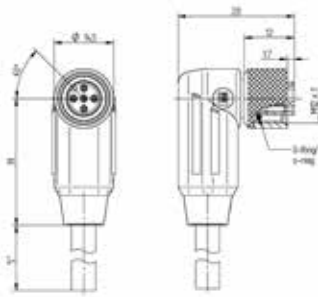
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11471	RKWT/LED A 4-3-06/2 M	3	PVC, orange	 
11472	RKWT/LED A 4-3-06/5 M	3	PVC, orange	 
11470	RKWT/LED A 4-3-06/10 M	3	PVC, orange	 
11477	RKWT/LED A 4-3-224/2 M	3	PUR, halogen-free, black	    
11478	RKWT/LED A 4-3-224/5 M	3	PUR, halogen-free, black	    
11475	RKWT/LED A 4-3-224/10 M	3	PUR, halogen-free, black	    
38795	RKWT/LED A 4-3-260/2 M	3	PUR, halogen-free, orange	     
17572	RKWT/LED A 4-3-260/5 M	3	PUR, halogen-free, orange	     
14157	RKWT/LED A 4-3-260/10 M	3	PUR, halogen-free, orange	     
11539	RKWT/LED P 4-07/2 M	4	PVC, orange	 
11540	RKWT/LED P 4-07/5 M	4	PVC, orange	 
11538	RKWT/LED P 4-07/10 M	4	PVC, orange	 
11544	RKWT/LED P 4-225/2 M	4	PUR, halogen-free, black	    
11545	RKWT/LED P 4-225/5 M	4	PUR, halogen-free, black	    
16978	RKWT/LED P 4-225/10 M	4	PUR, halogen-free, black	    
11547	RKWT/LED P 4-251/2 M	4	PUR, halogen-free, orange	     
11548	RKWT/LED P 4-251/5 M	4	PUR, halogen-free, orange	     
11546	RKWT/LED P 4-251/10 M	4	PUR, halogen-free, orange	     
75305	RKWT/LED W 4-265/2 M	4	PUR, halogen-free, black	    
75316	RKWT/LED W 4-265/5 M	4	PUR, halogen-free, black	    
85877	RKWT/LED W 4-265/10 M	4	PUR, halogen-free, black	    

Contact (yellow-green), LED P: PNP break/make contact (yellow-yellow-green antivalent), LED W: PNP break/make contact (yellow-white-green antivalent)
 Special circuitry available upon request




Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Shielded Female Connectors

Technical Information

Product Description		
Order Designation	RKTS	RKWTS
		
Description	Actuator/sensor cordset, M12 overmolded female connector, straight, with screw coupling, shield connected to knurled nut	Actuator/sensor cordset, M12 overmolded female connector, 360° shield connected to knurled nut, angled, with screw coupling
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PBT (8-pin TPU)	PBT
Contact Material/Surface Finish	CuSn (4 and 5-pin), CuZn (8-pin), gold over nickel plating	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	IP67, IP68, IP69K (only when mated to associated counterparts)
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 50 V AC/60 V DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	4 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • L = Standard length of cable

Pin Assignment



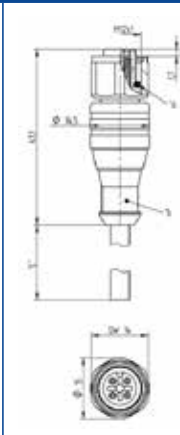
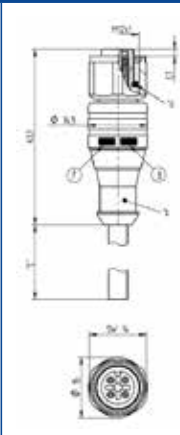
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Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11411	RKTS 4-182/2 M	4	PVC, orange	
11412	RKTS 4-182/5 M	4	PVC, orange	
11410	RKTS 4-182/10 M	4	PVC, orange	
49203	RKTS 4-288/2 M	4	PUR, halogen-free, black	   
49205	RKTS 4-288/5 M	4	PUR, halogen-free, black	
49202	RKTS 4-288/10 M	4	PUR, halogen-free, black	
11417	RKTS 5-183/2 M	5	PVC, orange	
11418	RKTS 5-183/5 M	5	PVC, orange	
11416	RKTS 5-183/10 M	5	PVC, orange	
49231	RKTS 5-298/2 M	5	PUR, halogen-free, black	   
49232	RKTS 5-298/5 M	5	PUR, halogen-free, black	
49230	RKTS 5-298/10 M	5	PUR, halogen-free, black	
11423	RKTS 8-184/2 M	8	PVC, orange	
11424	RKTS 8-184/5 M	8	PVC, orange	
11422	RKTS 8-184/10 M	8	PVC, orange	
49261	RKTS 8-299/2 M	8	PUR, halogen-free, black	   
49262	RKTS 8-299/5 M	8	PUR, halogen-free, black	
49260	RKTS 8-299/10 M	8	PUR, halogen-free, black	
934703004	RKWTS 4-182/2 M	4	PVC, orange	
934703007	RKWTS 4-182/5 M	4	PVC, orange	
934703002	RKWTS 4-182/10 M	4	PVC, orange	
934703011	RKWTS 4-288/2 M	4	PUR, halogen-free, black	   
934703014	RKWTS 4-288/5 M	4	PUR, halogen-free, black	
934703009	RKWTS 4-288/10 M	4	PUR, halogen-free, black	
934703017	RKWTS 5-183/2 M	5	PVC, orange	
934703018	RKWTS 5-183/5 M	5	PVC, orange	
934703016	RKWTS 5-183/10 M	5	PVC, orange	
934703022	RKWTS 5-298/2 M	5	PUR, halogen-free, black	   
934703025	RKWTS 5-298/5 M	5	PUR, halogen-free, black	
934703020	RKWTS 5-298/10 M	5	PUR, halogen-free, black	
934703026	RKWTS 8-184/2 M	8	PVC, orange	
934703027	RKWTS 8-184/5 M	8	PVC, orange	
9771	RKWTS 8-184/10 M	8	PVC, orange	
934703030	RKWTS 8-299/2 M	8	PUR, halogen-free, black	   
934703032	RKWTS 8-299/5 M	8	PUR, halogen-free, black	
934703028	RKWTS 8-299/10 M	8	PUR, halogen-free, black	



Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Female Connectors for Food & Beverage – PVC

Technical Information

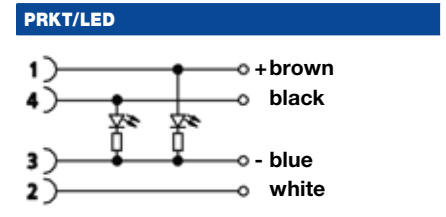
Product Description		
Order Designation	PRKT	PRKT/LED
		
Description	Actuator/sensor cordset, M12 overmolded female connector, straight, with self-locking screw coupling, stainless steel hexagonal nut	Actuator/sensor cordset, M12 overmolded female connector, straight, with self-locking screw coupling, with LED operation and function indicators, stainless steel hexagonal nut
Note	Especially suitable for use in the food & beverage industry.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +70 °C, mind cable temperature range	
Housing Material/Grip	PVC	
Contact Holder Material	PVC	
Contact Material/Surface Finish	CuSn, gold over nickel plating	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Protective sleeve assembly • L = Standard length of cable • B = Operation indicator (green) • F = Function indicator



















Pin Assignment

4-pin	5-pin
 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = gray</p>

Circuit Diagram





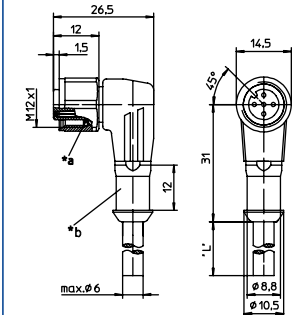
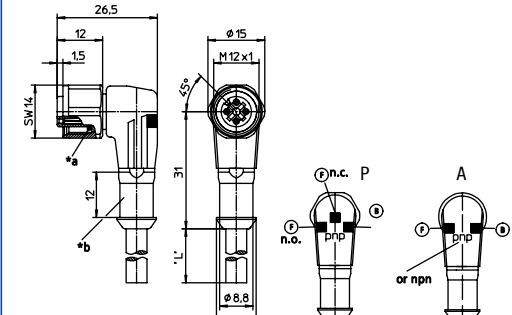
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
53259	PRKT 4-07/2 M	4	PVC, orange	 
28336	PRKT 4-07/5 M	4	PVC, orange	 
13287	PRKT 4-07/10 M	4	PVC, orange	 
934637022	PRKT 5-56/2 M	5	PVC, orange	 
45340	PRKT 5-56/5 M	5	PVC, orange	 
46894	PRKT 5-56/10 M	5	PVC, orange	 
66786	PRKT/LED F 4-07/2 M	4	PVC, orange	 
105095	PRKT/LED F 4-07/5 M	4	PVC, orange	 
46990	PRKT/LED F 4-07/10 M	4	PVC, orange	 

LED F: PNP break/make contact
Special circuitry available upon request




Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Female Connectors for Food & Beverage – PVC

Technical Information

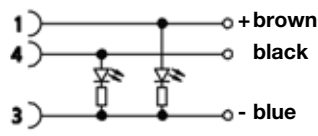
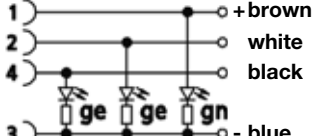
Product Description		
Order Designation	PRKW7	PRKW7/LED
		
Description	Actuator/sensor cordset, M12 overmolded female connector, angled, with self-locking screw coupling, stainless steel hexagonal nut	Actuator/sensor cordset, M12 overmolded female connector, angled, with LED and function indicators, self-locking screw coupling, stainless steel hexagonal nut
Note	Especially suitable for use in the food & beverage industry.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +70 °C, mind cable temperature range	
Housing Material/Grip	PVC	
Contact Holder Material	PVC	
Contact Material/Surface Finish	CuSn, gold over nickel plating	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Protective sleeve assembly • L = Standard length of cable • B = Operation indicator (green) • F = Function indicator (yellow)

























Pin Assignment

3-pin	4-pin	5-pin
 <p>1 = brown 2 = n.c. 3 = blue 4 = black</p>	 <p>1 = brown 2 = n.c. 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = gray</p>

Circuit Diagram

PRKWT/LED A4-3-06/...M	PRKWT/LED P4-07/...M
 <p>1) + brown 4) black 3) - blue</p>	 <p>1) + brown 2) white 4) black 3) - blue</p>



Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
53263	PRKWT 4-07/2 M	4	PVC, orange	 
13601	PRKWT 4-07/5 M	4	PVC, orange	 
13584	PRKWT 4-07/10 M	4	PVC, orange	 
11157	PRKWT 5-56/2 M	5	PVC, orange	 
13635	PRKWT 5-56/5 M	5	PVC, orange	 
54711	PRKWT 5-56/10 M	5	PVC, orange	 
13863	PRKWT/LED A 4-3-06/2 M	3	PVC, orange	 
13862	PRKWT/LED A 4-3-06/5 M	3	PVC, orange	 
13864	PRKWT/LED A 4-3-06/10 M	3	PVC, orange	 
18021	PRKWT/LED P 4-07/5 M	4	PVC, orange	 
18026	PRKWT/LED P 4-07/10 M	4	PVC, orange	 
18027	PRKWT/LED P 4-07/25 M	4	PVC, orange	 

LED A: PNP make contact (yellow-green), LED P: PNP break/make contact (yellow-yellow-green antivalent)
Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Female Connectors for Food & Beverage – Wash-Down

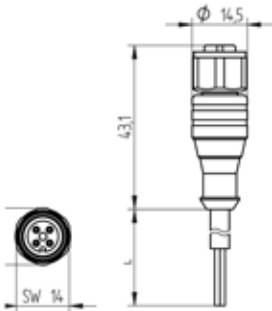
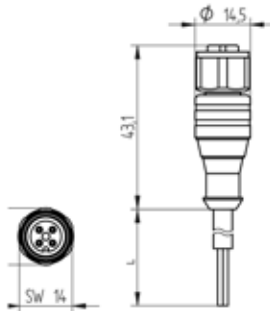
Technical Information

Product Description		
Order Designation	WRKT	WRKT/LED
		
Description	Actuator/sensor cordset, M12 overmolded female connector, straight, stainless steel hexagonal nut	Actuator/sensor cordset, M12 overmolded female connector, straight, LED operation and function indicators, stainless steel hexagonal nut
Note	Especially suitable for use in wash-down applications.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL, ECOLAB	

Technical Data	
Ambient Temperature	-40 °C to +105 °C (UL: up to +90 °C), mind cable temperature range
Housing Material/Grip	PP
Contact Holder Material	PP
Contact Material/Surface Finish	CuSn (3, 4, and 5-pin), CuZn (8-pin), gold over nickel plating
Screw Coupling Material	Stainless steel




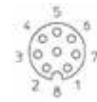
Mechanical Data	
Degree of Protection	IP67, IP68, IP69K (only when mated to associated counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC 24 V DC
Rated Current	3 and 5-pin 4 A, 8-pin 2 A
Pollution Degree	3

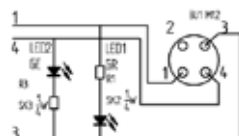
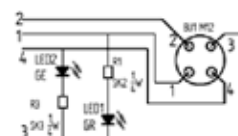
Technical Drawing	
	

L = Standard length of cable





































Pin Assignment

3-pin	4-pin	5-pin	8-pin
 <p>1 = brown 2 = n.c. 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = gray</p>	 <p>1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red</p>

Circuit Diagram

WRKWT/LED A 4-3-520/...M (3-pin)	WRKWT/LED F 4-521/...M (4-pin)
	



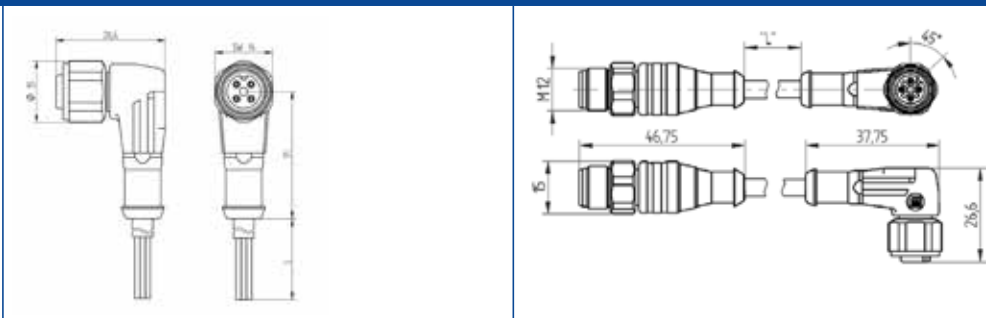
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934733001	WRKT 4-3-520/2 M	3	TPE, orange	ECO LAB UL  
934733002	WRKT 4-3-520/5 M	3	TPE, orange	ECO LAB UL  
934733003	WRKT 4-3-520/10 M	3	TPE, orange	ECO LAB UL  
934733007	WRKT 4-521/2 M	4	TPE, orange	ECO LAB UL  
934733008	WRKT 4-521/5 M	4	TPE, orange	ECO LAB UL  
934733009	WRKT 4-521/10 M	4	TPE, orange	ECO LAB UL  
934733013	WRKT 5-522/2 M	5	TPE, orange	ECO LAB UL  
934733014	WRKT 5-522/5 M	5	TPE, orange	ECO LAB UL  
934733015	WRKT 5-522/10 M	5	TPE, orange	ECO LAB UL  
934733019	WRKT 8-523/2 M	8	TPE, orange	ECO LAB UL  
934733020	WRKT 8-523/5 M	8	TPE, orange	ECO LAB UL  
934733021	WRKT 8-523/10 M	8	TPE, orange	ECO LAB UL  
9779	WRKT/LED A 4-3-520/2 M	3	TPE, orange	ECO LAB UL  
9818	WRKT/LED A 4-3-520/5 M	3	TPE, orange	ECO LAB UL  
9819	WRKT/LED A 4-3-520/10 M	3	TPE, orange	ECO LAB UL  
9262	WRKT/LED F 4-521/2 M	4	TPE, orange	ECO LAB UL  
9261	WRKT/LED F 4-521/5 M	4	TPE, orange	ECO LAB UL  
9820	WRKT/LED F 4-521/10 M	4	TPE, orange	ECO LAB UL  

LED A/LED F: PNP make contact
Special circuitry available upon request





Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Female Connectors for Food & Beverage – Wash-Down

Technical Information

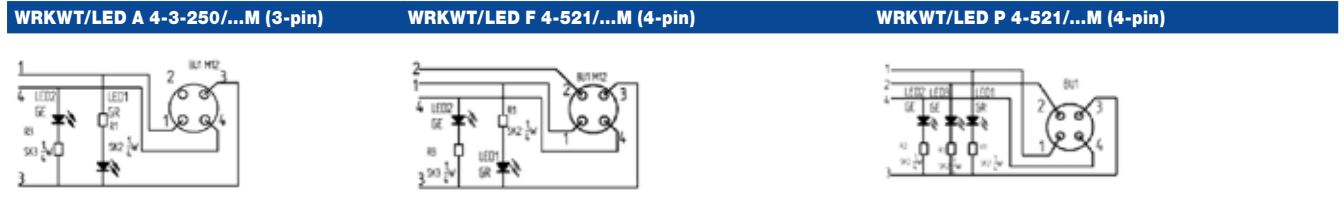
Product Description	
Order Designation	WRKWT
	
	WRKWT/LED
	
Description	Actuator/sensor cordset, M12 female connector, angled, stainless steel hexagonal nut
Note	Especially suitable for use in wash-down applications.
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	UL, ECOLAB
Technical Data	
Ambient Temperature	-40 °C to +105 °C (UL: up to +90 °C), mind cable temperature range
Housing Material/Grip	PP
Contact Holder Material	PP
Contact Material/Surface Finish	CuSn (3, 4, and 5-pin), CuZn (8-pin), gold over nickel plating
Screw Coupling Material	Stainless steel
Mechanical Data	
Degree of Protection	IP67, IP68, IP69K (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC 24 V DC
Rated Current	3 and 5-pin 4 A, 8-pin 2 A
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable • B = Operation indicator (green) • F = Function indicator (yellow) • F2 = Function indicator (yellow)

Pin Assignment

3-pin	4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = n.c. 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red

Circuit Diagram





Order Information

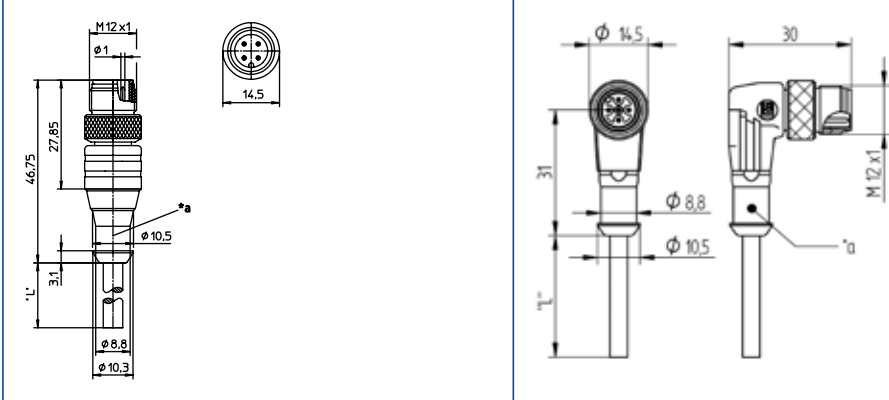
Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934734001	WRKWT 4-3-520/2 M	4	TPE, orange	ECO LAB UL  
934734002	WRKWT 4-3-520/5 M	4	TPE, orange	ECO LAB UL  
934734003	WRKWT 4-3-520/10 M	4	TPE, orange	ECO LAB UL  
934734007	WRKWT 4-521/2 M	4	TPE, orange	ECO LAB UL  
934734008	WRKWT 4-521/5 M	4	TPE, orange	ECO LAB UL  
934734009	WRKWT 4-521/10 M	4	TPE, orange	ECO LAB UL  
934734013	WRKWT 5-522/2 M	5	TPE, orange	ECO LAB UL  
934734014	WRKWT 5-522/5 M	5	TPE, orange	ECO LAB UL  
934734015	WRKWT 5-522/10 M	5	TPE, orange	ECO LAB UL  
934734019	WRKWT 8-523/2 M	8	TPE, orange	ECO LAB UL  
934734020	WRKWT 8-523/5 M	8	TPE, orange	ECO LAB UL  
934734021	WRKWT 8-523/10 M	8	TPE, orange	ECO LAB UL  
9821	WRKWT/LED A 4-3-520/2 M	3	TPE, orange	ECO LAB UL  
9824	WRKWT/LED A 4-3-520/5 M	3	TPE, orange	ECO LAB UL  
9829	WRKWT/LED A 4-3-520/10 M	3	TPE, orange	ECO LAB UL  
9830	WRKWT/LED F 4-521/2 M	4	TPE, orange	ECO LAB UL  
9831	WRKWT/LED F 4-521/5 M	4	TPE, orange	ECO LAB UL  
9832	WRKWT/LED F 4-521/10 M	4	TPE, orange	ECO LAB UL  
9258	WRKWT/LED P 4-521/2 M	4	TPE, orange	ECO LAB UL  
7319	WRKWT/LED P 4-521/5 M	4	TPE, orange	ECO LAB UL  
10502	WRKWT/LED P 4-521/10 M	4	TPE, orange	ECO LAB UL  

LED A/LED F: PNP make contact (yellow-green), LED P: PNP break/make contact (yellow-yellow-green)
 Special circuitry available upon request

Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Standard Male Connectors





Technical Information

Product Description		
Order Designation	RST	RSWT
		
Description	Actuator/sensor cordset, M12 overmolded male connector, straight, with self-locking screw coupling	Actuator/sensor cordset, M12 overmolded male connector, angled, with self-locking screw coupling
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn, gold over nickel plating	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67, IP68 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8 to 12-pin: 30 V AC/DC	
Rated Current	3 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		




















































































*a = Protective sleeve assembly • L = Standard length of cable

Pin Assignment



























































































3-pin	4-pin	5-pin	8-pin
 <p>1 = brown 3 = blue 4 = black</p> <p>Contact 1 leading</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow</p> <p>Contact 5 leading</p>	 <p>1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = shield</p>

Order Information

































































































Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11719	RST 3-06/2 M	3	PVC, orange	 
11720	RST 3-06/5 M	3	PVC, orange	 
11718	RST 3-06/10 M	3	PVC, orange	 
43703	RST 3-224/2 M	3	PUR, halogen-free, black	   
43704	RST 3-224/5 M	3	PUR, halogen-free, black	   
43702	RST 3-224/10 M	3	PUR, halogen-free, black	   
41731	RST 3-260/2 M	3	PUR, halogen-free, orange	    
71255	RST 3-260/5 M	3	PUR, halogen-free, orange	    
71266	RST 3-260/10 M	3	PUR, halogen-free, orange	    
9835	RST 3-294/2 M	3	PVC, black	 
3148	RST 3-294/5 M	3	PVC, black	 
3149	RST 3-294/10 M	3	PVC, black	 
11804	RST 4-07/2 M	4	PVC, orange	 
11805	RST 4-07/5 M	4	PVC, orange	 
11803	RST 4-07/10 M	4	PVC, orange	 
11809	RST 4-225/2 M	4	PUR, halogen-free, black	   
11810	RST 4-225/5 M	4	PUR, halogen-free, black	   
29618	RST 4-225/10 M	4	PUR, halogen-free, black	   
11811	RST 4-251/2 M	4	PUR, halogen-free, orange	    
11812	RST 4-251/5 M	4	PUR, halogen-free, orange	    
46902	RST 4-251/10 M	4	PUR, halogen-free, orange	    
91332	RST 4-265/2 M	4	PUR, halogen-free, gray	  
51939	RST 4-265/5 M	4	PUR, halogen-free, gray	  
81994	RST 4-265/10 M	4	PUR, halogen-free, gray	  

Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Standard Male Connectors *(continued)*

Order Information


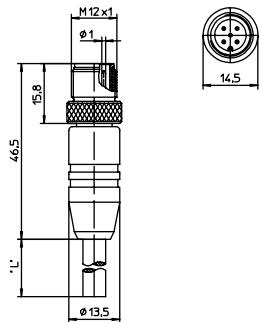
Order No.	Order Designation	No. of Pins	Jacket	Characteristics
693	RST 4-500/2 M	4	PUR, halogen-free, black	      
694	RST 4-500/5 M	4	PUR, halogen-free, black	      
695	RST 4-500/10 M	4	PUR, halogen-free, black	      
46615	RST 4-602/2 M	4	TPE, yellow	
26875	RST 4-602/5 M	4	TPE, yellow	
55304	RST 4-602/10 M	4	TPE, yellow	
12016	RST 5-56/2 M	5	PVC, orange	 
12017	RST 5-56/5 M	5	PVC, orange	 
12015	RST 5-56/10 M	5	PVC, orange	 
10436	RST 5-72/2 M	5	PUR, black	  
15274	RST 5-72/5 M	5	PUR, black	  
107305	RST 5-72/10 M	5	PUR, black	  
15792	RST 5-87/2 M	5	PUR, black	 
15794	RST 5-87/5 M	5	PUR, black	 
15795	RST 5-87/10 M	5	PUR, black	 
11890	RST 5-228/2 M	5	PUR, halogen-free, black	   
11891	RST 5-228/5 M	5	PUR, halogen-free, black	   
17061	RST 5-228/10 M	5	PUR, halogen-free, black	   
11895	RST 5-259/2 M	5	PUR, halogen-free, orange	    
11896	RST 5-259/5 M	5	PUR, halogen-free, orange	    
47018	RST 5-259/10 M	5	PUR, halogen-free, orange	    
51495	RST 5-289/2 M	5	PVC, black	 
51496	RST 5-289/5 M	5	PVC, black	 
51497	RST 5-289/10 M	5	PVC, black	 
10435	RST 5-296/2 M	5	PVC, black	 
934637790	RST 5-296/5 M	5	PVC, black	 
1222	RST 5-296/10 M	5	PVC, black	 
12084	RST 8-09/2 M	8	PUR, orange	 
12085	RST 8-09/5 M	8	PUR, orange	 
12083	RST 8-09/10 M	8	PUR, orange	 

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
47076	RST 8-282/2 M	8	PUR, halogen-free, black	   
64545	RST 8-282/5 M	8	PUR, halogen-free, black	   
64544	RST 8-282/10 M	8	PUR, halogen-free, black	   
97324	RST 8-344/2 M	8	PUR, halogen-free, black	  
97325	RST 8-344/5 M	8	PUR, halogen-free, black	  
108754	RST 8-344/10 M	8	PUR, halogen-free, black	  
9838	RST 12-346/2 M	12	PUR, halogen-free, black	  
105423	RST 12-346/5 M	12	PUR, halogen-free, black	  
934637041	RST 12-346/10 M	12	PUR, halogen-free, black	  
12106	RSWT 3-06/2 M	3	PVC, orange	 
12107	RSWT 3-06/5 M	3	PVC, orange	 
8816	RSWT 3-06/10 M	3	PVC, orange	 
934636133	RSWT 3-224/2 M	3	PUR, halogen-free, black	   
70397	RSWT 3-224/5 M	3	PUR, halogen-free, black	   
1028	RSWT 3-224/10 M	3	PUR, halogen-free, black	   
12112	RSWT 4-07/2 M	4	PVC, orange	 
12113	RSWT 4-07/5 M	4	PVC, orange	 
12111	RSWT 4-07/10 M	4	PVC, orange	 
46523	RSWT 4-225/2 M	4	PUR, halogen-free, black	   
44597	RSWT 4-225/5 M	4	PUR, halogen-free, black	   
46629	RSWT 4-225/10 M	4	PUR, halogen-free, black	   
934636116	RSWT 5-56/2 M	5	PVC, orange	 
9859	RSWT 5-56/5 M	5	PVC, orange	 
9870	RSWT 5-56/10 M	5	PVC, orange	 
44782	RSWT 5-228/2 M	5	PUR, halogen-free, black	   
50527	RSWT 5-228/5 M	5	PUR, halogen-free, black	   
58489	RSWT 5-228/10 M	5	PUR, halogen-free, black	   
15951	RSWT 8-09/2 M	8	PUR, orange	   
9882	RSWT 8-09/5 M	8	PUR, orange	   
934637356	RSWT 8-09/10 M	8	PUR, orange	   




Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Shielded Male Connectors

Technical Information

















































Product Description	
Product Description	RSTS
	
Description	Actuator/sensor cordset, M12 overmolded male connector, straight, shielded, with screw coupling, 360° shield connected to knurled screw
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	UL
Technical Data	
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PBT (8-pin: TPU)
Contact Material/Surface Finish	CuSn (4 and 5-pin), CuZn (8-pin), gold over nickel plating
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	4 to 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC
Rated Current	4 to 5-pin 4 A, 8-pin 2 A
Pollution Degree	3
Technical Drawing	
	

*a = Protective sleeve assembly • L = Standard length of cable

Pin Assignment



4-pin	5-pin	8-pin
 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = gray</p>	 <p>1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red</p>
Contact 5 leading		

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
12087	RSTS 4-182/2 M	4	PVC, orange	   
12088	RSTS 4-182/5 M	4	PVC, orange	
12086	RSTS 4-182/10 M	4	PVC, orange	
49307	RSTS 4-288/2 M	4	PUR, halogen-free, black	   
49308	RSTS 4-288/5 M	4	PUR, halogen-free, black	   
49306	RSTS 4-288/10 M	4	PUR, halogen-free, black	   
12093	RSTS 5-183/2 M	5	PVC, orange	
12094	RSTS 5-183/5 M	5	PVC, orange	
12092	RSTS 5-183/10 M	5	PVC, orange	
49234	RSTS 5-298/2 M	5	PUR, halogen-free, black	   
49235	RSTS 5-298/5 M	5	PUR, halogen-free, black	   
49233	RSTS 5-298/10 M	5	PUR, halogen-free, black	   
12099	RSTS 8-184/2 M	8	PVC, orange	
12100	RSTS 8-184/5 M	8	PVC, orange	
12098	RSTS 8-184/10 M	8	PVC, orange	
49264	RSTS 8-299/2 M	8	PUR, halogen-free, black	   
49265	RSTS 8-299/5 M	8	PUR, halogen-free, black	   
49263	RSTS 8-299/10 M	8	PUR, halogen-free, black	   

Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Male Connectors for Food & Beverage – PVC

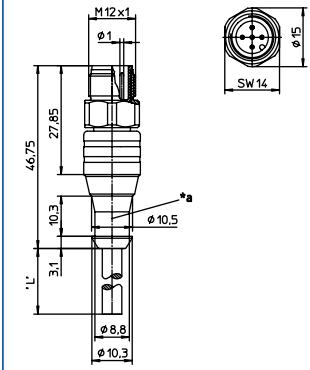
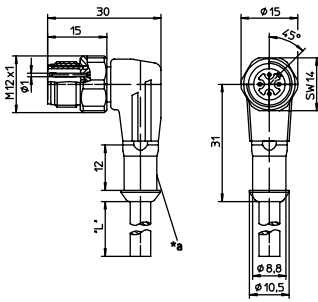
Technical Information

Product Description		
Order Designation	PRST	PRSWT
		
Description	Actuator/sensor cordset, M12 overmolded male connector, straight, with self-locking screw coupling, stainless steel hexagonal screw	Actuator/sensor cordset, M12 overmolded male connector, angled, with self-locking screw coupling, stainless steel hexagonal screw
Note	Especially suitable for use in the food & beverage industry.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	-	

Technical Data	
Ambient Temperature	-25 °C to +70 °C, mind cable temperature range
Housing Material/Grip	PVC
Contact Holder Material	PVC
Contact Material/Surface Finish	CuZn, gold over nickel plating
Screw Coupling Material	Stainless steel

Mechanical Data	
Degree of Protection	IP67, IP69K (only when mated to associated counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3

























Technical Drawing	
	

*a = Protective sleeve assembly • L = Standard length of cable

PRST Pin Assignment



4-pin	5-pin
 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
38298	PRST 4-07/2 M	4	PVC, orange	 
59202	PRST 4-07/5 M	4	PVC, orange	 
18230	PRST 4-07/10 M	4	PVC, orange	 
9884	PRST 5-56/2 M	5	PVC, orange	 
9894	PRST 5-56/5 M	5	PVC, orange	 
9895	PRST 5-56/10 M	5	PVC, orange	 
9901	PRSWT 4-07/2 M	4	PVC, orange	 
9904	PRSWT 4-07/5 M	4	PVC, orange	 
9909	PRSWT 4-07/10 M	4	PVC, orange	 
9910	PRSWT 5-56/2 M	5	PVC, orange	 
9911	PRSWT 5-56/5 M	5	PVC, orange	 
9912	PRSWT 5-56/10 M	5	PVC, orange	 

Single-Ended Overmolded M12 Cordset for Actuators and Sensors – Male Connectors for Food & Beverage – Wash-Down

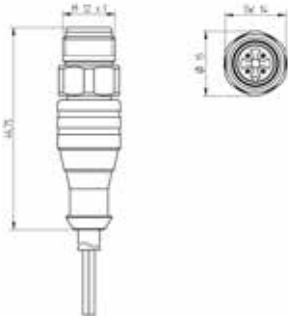
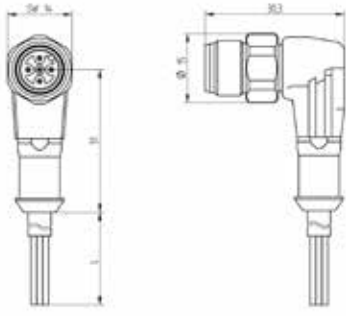
Technical Information

Product Description		
Order Designation	WRST	WRSWT
		
Description	Actuator/sensor cordset, M12 overmolded male, straight, stainless steel hexagonal screw	Actuator/sensor cordset, M12 overmolded male, angled, stainless steel hexagonal screw
Note	Especially suitable for use in wash-down applications.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL, ECOLAB	

Technical Data	
Ambient Temperature	-40 °C to +105 °C (UL: up to +90 °C), mind cable temperature range
Housing Material/Grip	PP
Contact Holder Material	PP
Contact Material/Surface Finish	CuSn (3, 4, and 5-pin), CuZn (8-pin), nickel underlay and gold-plated
Screw Coupling Material	Stainless steel





Mechanical Data	
Degree of Protection	IP67, IP68, IP69K (only when mated to associated counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC
Rated Current	3 and 5-pin 4 A, 8-pin 2 A
Pollution Degree	3
































































































Technical Drawing	
	

L = Standard length of cable

Pin Assignment



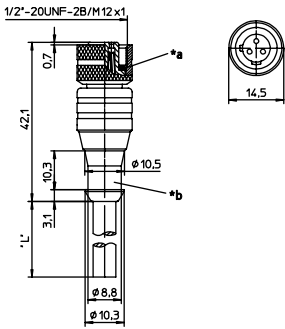
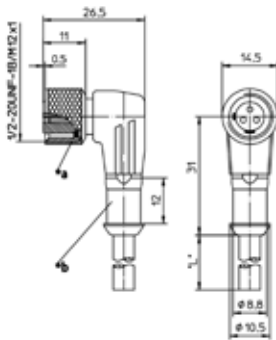
3-pin	4-pin	5-pin	8-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = gray</p>	 <p>1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934735001	WRST 3-520/2 M	3	TPE, orange	   
934735002	WRST 3-520/5 M	3	TPE, orange	   
934735003	WRST 3-520/10 M	3	TPE, orange	   
934735007	WRST 4-521/2 M	4	TPE, orange	   
934735008	WRST 4-521/5 M	4	TPE, orange	   
934735009	WRST 4-521/10 M	4	TPE, orange	   
934735013	WRST 5-522/2 M	5	TPE, orange	   
934735014	WRST 5-522/5 M	5	TPE, orange	   
934735015	WRST 5-522/10 M	5	TPE, orange	   
934735019	WRST 8-523/2 M	8	TPE, orange	   
934735020	WRST 8-523/5 M	8	TPE, orange	   
934735021	WRST 8-523/10 M	8	TPE, orange	   
934736001	WRSWT 3-520/2 M	3	TPE, orange	   
934736002	WRSWT 3-520/5 M	3	TPE, orange	   
934736003	WRSWT 3-520/10 M	3	TPE, orange	   
934736007	WRSWT 4-521/2 M	4	TPE, orange	   
934736008	WRSWT 4-521/5 M	4	TPE, orange	   
934736009	WRSWT 4-521/10 M	4	TPE, orange	   
934736013	WRSWT 5-522/2 M	5	TPE, orange	   
934736014	WRSWT 5-522/5 M	5	TPE, orange	   
934736015	WRSWT 5-522/10 M	5	TPE, orange	   
934736019	WRSWT 8-523/2 M	8	TPE, orange	   
934736020	WRSWT 8-523/5 M	8	TPE, orange	   
934736021	WRSWT 8-523/10 M	8	TPE, orange	   

Single-Ended Overmolded 1/2" UNF or M12 Cordsets for Actuators and Sensors – Female Connectors

Technical Information

Product Description		
Order Designation	RKT 3U	RKWT 3U
		
Description	Actuator/sensor cordset, 1/2" UNF or M12 overmolded female connector, straight, C- (or U-)coding, with self-locking screw coupling, 3-pin	Actuator/sensor cordset, 1/2" UNF or M12 overmolded female connector, angled, C- (or U-)coding, with self-locking screw coupling, 3-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	Based on IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-20 °C to + 90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Protective sleeve assembly • L = Standard length of cable































Pin Assignment

3-pin, U-coding




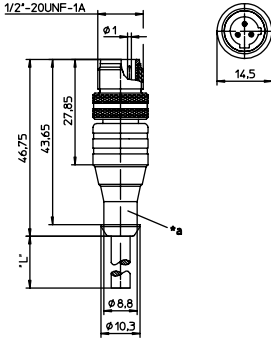
1 = brown
2 = blue
3 = green/yellow

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11342	RKT 3U-12-19/2 M	3	PVC, orange	
11343	RKT 3U-12-19/5 M	3	PVC, orange	
9913	RKT 3U-12-19/10 M	3	PVC, orange	
11345	RKT 3U-18/2 M	3	PVC, yellow	 
11346	RKT 3U-18/5 M	3	PVC, yellow	 
11344	RKT 3U-18/10 M	3	PVC, yellow	 
91183	RKT 3U-226/2 M	3	PUR, halogen-free, black	   
54204	RKT 3U-226/5 M	3	PUR, halogen-free, black	   
76347	RKT 3U-226/10 M	3	PUR, halogen-free, black	   
11433	RKWT 3U-18/2 M	3	PVC, yellow	 
11434	RKWT 3U-18/5 M	3	PVC, yellow	 
11432	RKWT 3U-18/10 M	3	PVC, yellow	 
11430	RKWT 3U-12-19/2 M	3	PVC, orange	
11431	RKWT 3U-12-19/5 M	3	PVC, orange	
86075	RKWT 3U-12-19/10 M	3	PVC, orange	

Single-Ended Overmolded 1/2" UNF Connectors for Actuators and Sensors – Male Connectors

Technical Information

Product Description	
Order Designation	RST 3U
	
Description	Actuator/sensor cordset, 1/2" UNF overmolded male connector, straight, C- (or U)-coding, with self-locking screw coupling, 3-pin
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	based on IEC 61076-2-101
Approvals	UL
Technical Data	
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	TPU
Contact Material/Surface Finish	CuZn, gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	230 V AC/DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

*a = Protective sleeve assembly • L = Standard length of cable

Pin Assignment

3-pin, U-coding



- 1 = green
- 2 = red/black
- 3 = red/white




Contact 1 leading

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
74357	RST 3U-226/2 M	3	PUR, halogen-free, black	
54921	RST 3U-226/5 M	3	PUR, halogen-free, black	
9920	RST 3U-226/10 M	3	PUR, halogen-free, black	

Single-Ended Overmolded M12 Data Cordsets – Industrial Ethernet

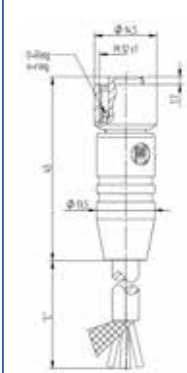
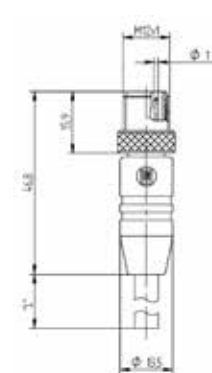
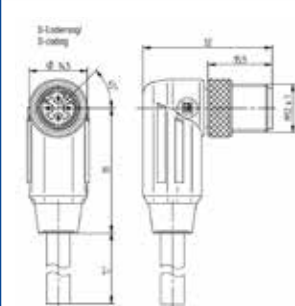
Technical Information

Product Description			
Order Designation	0985 342 118	0985 342 102	0985 342 130
			
Description	Industrial Ethernet cordset, M12 female connector, straight, with screw coupling, D-coding, 4-pin, 360° shield connected to knurled coupling nut	Industrial Ethernet cordset, M12 male connector, straight, with screw coupling, D-coding, 4-pin, 360° shield connected to knurled coupling nut	Industrial Ethernet cordset, M12 male connector, angled, with screw coupling, D-coding, 4-pin, 360° shield connected to knurled coupling nut
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	UL		

Technical Data	
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PBT
Contact Material/Surface Finish	CuSn, gold-plated
Screw Coupling Material	CuZn, nickel-plated

Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
	IP67, IP68, IP69K (only when mated to associated counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3































Technical Drawing		
		

L = Standard length of cable

Pin Assignment



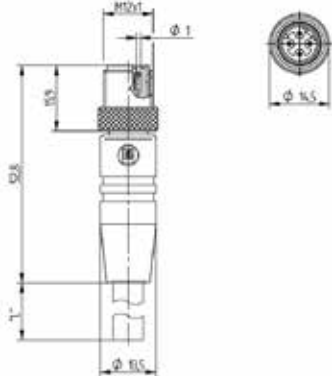
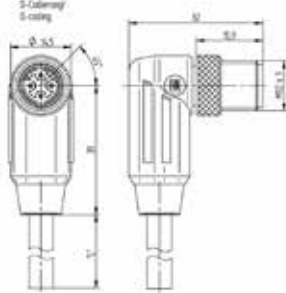
4-pin, D-coding	4-pin, D-coding
 <ul style="list-style-type: none"> 1 = yellow 2 = white 3 = orange 4 = blue 	 <ul style="list-style-type: none"> 1 = yellow 2 = white 3 = orange 4 = blue

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
9922	0985 342 118/0.3 M	4	PUR, halogen-free, shielded, green	
9923	0985 342 118/0.6 M	4	PUR, halogen-free, shielded, green	
934717002	0985 342 118/1 M	4	PUR, halogen-free, shielded, green	
934717003	0985 342 118/2 M	4	PUR, halogen-free, shielded, green	
2618	0985 342 118/3 M	4	PUR, halogen-free, shielded, green	
934717004	0985 342 118/5 M	4	PUR, halogen-free, shielded, green	
934717005	0985 342 118/10 M	4	PUR, halogen-free, shielded, green	
934717006	0985 342 118/15 M	4	PUR, halogen-free, shielded, green	
934717007	0985 342 118/20 M	4	PUR, halogen-free, shielded, green	
9924	0985 342 118/25 M	4	PUR, halogen-free, shielded, green	
9926	0985 342 102/0.3 M	4	PUR, halogen-free, shielded, green	
9927	0985 342 102/0.6 M	4	PUR, halogen-free, shielded, green	
934636933	0985 342 102/1 M	4	PUR, halogen-free, shielded, green	
75631	0985 342 102/2 M	4	PUR, halogen-free, shielded, green	
91037	0985 342 102/3 M	4	PUR, halogen-free, shielded, green	
75632	0985 342 102/5 M	4	PUR, halogen-free, shielded, green	
77830	0985 342 102/10 M	4	PUR, halogen-free, shielded, green	
934636134	0985 342 102/15 M	4	PUR, halogen-free, shielded, green	
2781	0985 342 102/20 M	4	PUR, halogen-free, shielded, green	
934636087	0985 342 102/25 M	4	PUR, halogen-free, shielded, green	
934636800	0985 342 130/0.3 M	4	PUR, halogen-free, shielded, green	
9929	0985 342 130/0.6 M	4	PUR, halogen-free, shielded, green	
2521	0985 342 130/1 M	4	PUR, halogen-free, shielded, green	
2374	0985 342 130/2 M	4	PUR, halogen-free, shielded, green	
2522	0985 342 130/3 M	4	PUR, halogen-free, shielded, green	
934726002	0985 342 130/5 M	4	PUR, halogen-free, shielded, green	
2524	0985 342 130/10 M	4	PUR, halogen-free, shielded, green	
2525	0985 342 130/15 M	4	PUR, halogen-free, shielded, green	
2375	0985 342 130/20 M	4	PUR, halogen-free, shielded, green	
9930	0985 342 130/25 M	4	PUR, halogen-free, shielded, green	

Single-Ended Overmolded M12 Data Cordsets – Male Industrial Ethernet for Railway Applications

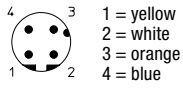
Technical Information

Product Description		
Order Designation	0985 508 120	0985 508 123
		
Description	Industrial Ethernet cordset with rail approval, Cat5 (ProfiNet), M12 male connector, straight, 4-pin, D-coding	Industrial Ethernet cordset with rail approval, Cat5 (ProfiNet), M12 male connector, angled, 4-pin, D-coding
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	IEC 61373, DIN EN 50467, DIN EN 45545-2, DIN 5510, based on EN 50155	
Technical Data		
Ambient Temperature	-40 °C to +85 °C, mind cable temperature range	
Housing Material/Grip	PA	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuSn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

4-pin, D-coding


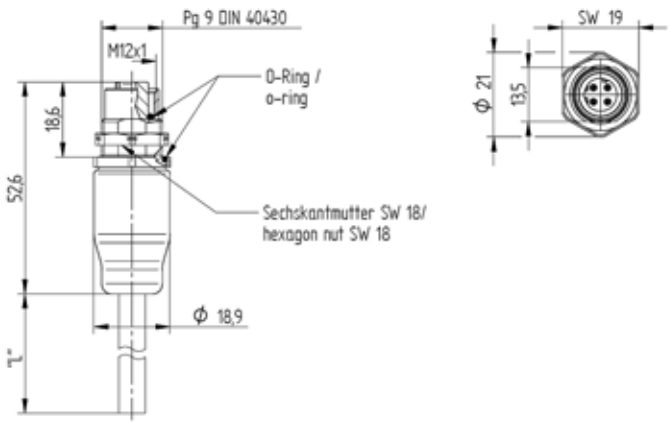


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
9933	0985 508 120/0.3 M	4	X-FRNC, black	
9936	0985 508 120/0.6 M	4	X-FRNC, black	
934688015	0985 508 120/1 M	4	X-FRNC, black	
934688011	0985 508 120/2 M	4	X-FRNC, black	
9937	0985 508 120/3 M	4	X-FRNC, black	
934688012	0985 508 120/5 M	4	X-FRNC, black	
934688013	0985 508 120/10 M	4	X-FRNC, black	
934688014	0985 508 120/15 M	4	X-FRNC, black	
9942	0985 508 120/20 M	4	X-FRNC, black	
9946	0985 508 120/25 M	4	X-FRNC, black	
10413	0985 508 123/0.3 M	4	X-FRNC, black	
10417	0985 508 123/0.6 M	4	X-FRNC, black	
934802001	0985 508 123/1 M	4	X-FRNC, black	
934802002	0985 508 123/2 M	4	X-FRNC, black	
10418	0985 508 123/3 M	4	X-FRNC, black	
934802003	0985 508 123/5 M	4	X-FRNC, black	
934802004	0985 508 123/10 M	4	X-FRNC, black	
10424	0985 508 123/15 M	4	X-FRNC, black	
10425	0985 508 123/20 M	4	X-FRNC, black	
10427	0985 508 123/25 M	4	X-FRNC, black	

Single-Ended Overmolded M12 Data Cordsets – Female Industrial Ethernet for Railway Applications

Technical Information

Product Description	
Order Designation	0985 508 124
	
Description	Industrial Ethernet cordset with rail approval, Cat5, M12 molded, receptacle, female, straight, 4-pin, D-coding
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	IEC 61373, DIN EN 50467, DIN EN 45545-2, based on EN 50155
Technical Data	
Ambient Temperature	-40 °C to +85 °C, mind cable temperature range
Housing Material/Grip	PA
Contact Holder Material	PBT
Contact Material/Surface Finish	CuSn, gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable




































Pin Assignment

4-pin, D-coding





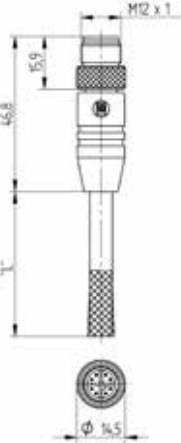
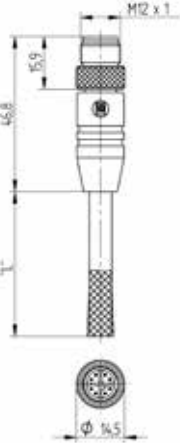
1 = yellow
2 = white
3 = orange
4 = blue

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934803001	0985 508 124/1 M	4	X-FRNC, black	    
934803002	0985 508 124/2 M	4	X-FRNC, black	    
934803003	0985 508 124/5 M	4	X-FRNC, black	    
934803004	0985 508 124/10 M	4	X-FRNC, black	    
10379	0985 508 124/15 M	4	X-FRNC, black	    
10382	0985 508 124/20 M	4	X-FRNC, black	    
10383	0985 508 124/25 M	4	X-FRNC, black	    

Single-Ended Overmolded M12 Data Cordsets for Gigabit Applications – Male Connectors

Technical Information





































Product Description		
Order Designation	RSTS 8X-478	BRSTS 8X-552
		
Description	Cat6a single-ended molded data cordsets for Industrial Ethernet gigabit applications (supports data transmission rates of up to 10 gigabits), with M12 male connector, X-coding, 360° shield connected to knurled nut, 8-pin	Cat6a single-ended molded data cordsets for Industrial Ethernet gigabit applications (supports data transmission rates of up to 10 gigabits), with M12 male connector, X-coding, 360° shield connected to knurled nut, 8-pin and rail approval
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-109 Cable: • ISO/IEC 11801 Cat7 • EN 50173-1 • TIA/EIA-568-B.2 (May 2001)	IEC 61076-2-109 Cable: • ISO/IEC 11801 Cat7 • EN 50173-1 • DIN 5510-2, EN 45545-2 • TIA/EIA-568-B.2 (May 2001)
Approvals	UL	DIN EN 45545-2, DIN EN 50467, DIN EN 61373, based on DIN EN 50155
Technical Data		
Ambient Temperature	-40 °C to +80 °C, mind cable temperature range	-40 °C to +85 °C, mind cable temperature range
Housing Material/Grip		PA
Contact Holder Material		PA
Contact Material/Surface Finish		CuZn, Cu/Au
Screw Coupling Material		CuZn, nickel-plated
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	0.5 A	
Pollution Degree	3 as per DIN EN 60664-1 (VDE 0110)	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment**8-pin, X-coding**



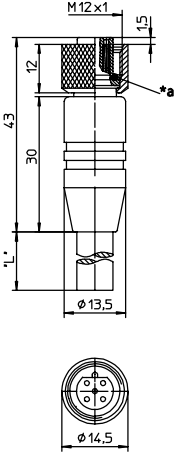
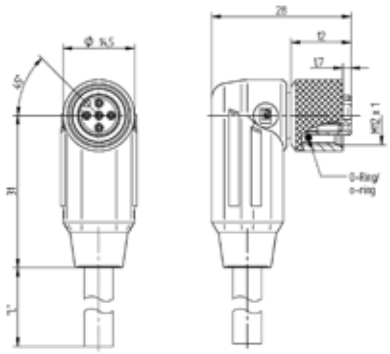
1 = white/orange	1 = white/brown
2 = orange	2 = brown
3 = white/green	3 = white/blue
4 = green	4 = blue

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934809001	RSTS 8X-478/2 M	8	PUR, halogen-free, black	  
934809002	RSTS 8X-478/5 M	8	PUR, halogen-free, black	  
934809003	RSTS 8X-478/10 M	8	PUR, halogen-free, black	  
934809004	RSTS 8X-478/15 M	8	PUR, halogen-free, black	  
10391	RSTS 8X-478/20 M	8	PUR, halogen-free, black	  
10396	RSTS 8X-478/25 M	8	PUR, halogen-free, black	  
934809009	BRSTS 8X-552/2 M	8	PUR, halogen-free, black	  
934809010	BRSTS 8X-552/5 M	8	PUR, halogen-free, black	  
934809011	BRSTS 8X-552/10 M	8	PUR, halogen-free, black	  
934809012	BRSTS 8X-552/15 M	8	PUR, halogen-free, black	  
10384	BRSTS 8X-552/20 M	8	PUR, halogen-free, black	  
10386	BRSTS 8X-552/25 M	8	PUR, halogen-free, black	  

Single-Ended Overmolded M12 Data Cordsets – PROFIBUS® Female Connectors

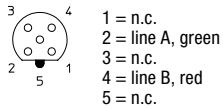
Technical Information

Product Description		
Order Designation	0975 254 103	0975 254 131 (RKWTS 5B)
		
Description	PROFIBUS overmolded cordset, M12 female connector, straight, with screw coupling, B-coding, 5-pin	PROFIBUS overmolded cordset, M12 female connector, angled, with screw coupling, B-coding, 5-pin, 360° shield connected to knurled screw, conductor color coding as per Euro standard
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	–
Technical Data		
Ambient Temperature	-25 °C to +85 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	PBT
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	IP67, IP68, IP69K (only when mated to associated counterparts)
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		







































































L = Standard length of cable

Pin Assignment

5-pin, B-coding



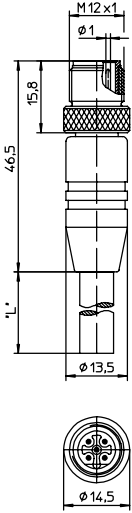
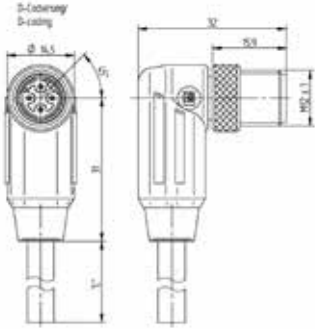


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
55410	0975 254 103/0.3 M	5	PUR, halogen-free, shielded, violet	    
86913	0975 254 103/0.6 M	5	PUR, halogen-free, shielded, violet	    
12504	0975 254 103/1 M	5	PUR, halogen-free, shielded, violet	    
17047	0975 254 103/2 M	5	PUR, halogen-free, shielded, violet	    
12505	0975 254 103/3 M	5	PUR, halogen-free, shielded, violet	    
12506	0975 254 103/5 M	5	PUR, halogen-free, shielded, violet	    
34618	0975 254 103/10 M	5	PUR, halogen-free, shielded, violet	    
28404	0975 254 103/15 M	5	PUR, halogen-free, shielded, violet	    
50580	0975 254 103/20 M	5	PUR, halogen-free, shielded, violet	    
58900	0975 254 103/25 M	5	PUR, halogen-free, shielded, violet	    
9951	0975 254 131/0.3 M	5	PUR, halogen-free, shielded, violet	   
9952	0975 254 131/0.6 M	5	PUR, halogen-free, shielded, violet	   
9953	0975 254 131/1 M	5	PUR, halogen-free, shielded, violet	   
934728001	0975 254 131/2 M	5	PUR, halogen-free, shielded, violet	   
5220	0975 254 131/3 M	5	PUR, halogen-free, shielded, violet	   
934728002	0975 254 131/5 M	5	PUR, halogen-free, shielded, violet	   
934728003	0975 254 131/10 M	5	PUR, halogen-free, shielded, violet	   
9954	0975 254 131/15 M	5	PUR, halogen-free, shielded, violet	   
9955	0975 254 131/20 M	5	PUR, halogen-free, shielded, violet	   
9957	0975 254 131/25 M	5	PUR, halogen-free, shielded, violet	   

Single-Ended Overmolded M12 Data Cordsets – PROFIBUS® Male Connectors

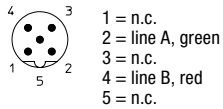
Technical Information

Product Description		
Order Designation	0975 254 102	0975 254 132 (RSWTS 5B)
		
Description	PROFIBUS overmolded cordset, M12 male connector, straight, with screw coupling, B-coding, 5-pin	PROFIBUS overmolded cordset, M12 male connector, angled, with screw coupling, B-coding, 5-pin, 360° shield connected to knurled screw, conductor color coding as per Euro standard
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	–
Technical Data		
Ambient Temperature	-25 °C to +85 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	PBT
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	IP67, IP68, IP69K (only when mated to associated counterparts)
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		



















































L = Standard length of cable

Pin Assignment

5-pin, B-coding





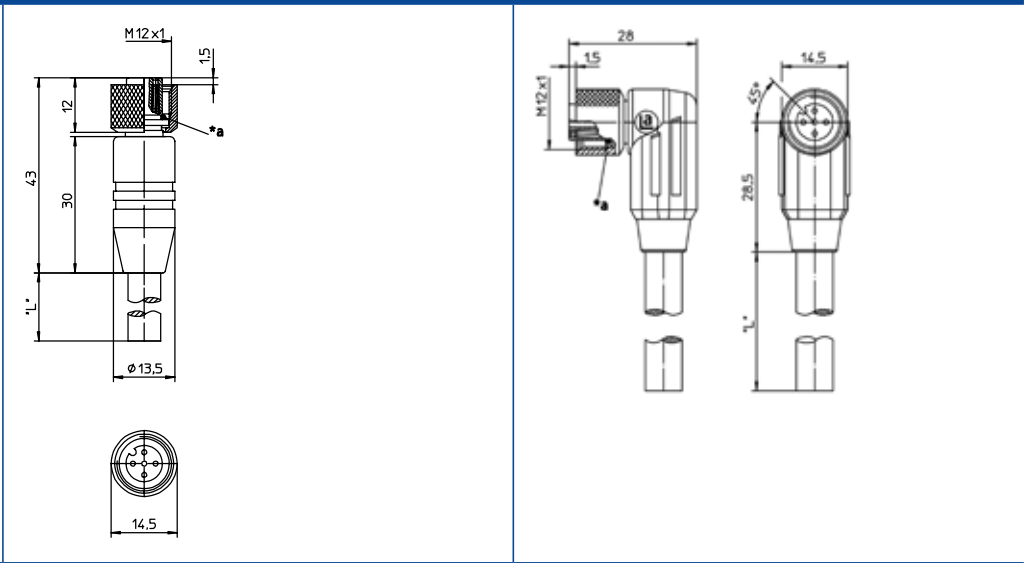
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
63558	0975 254 102/0.3 M	5	PUR, halogen-free, shielded, violet	   
89452	0975 254 102/0.6 M	5	PUR, halogen-free, shielded, violet	   
12503	0975 254 102/1 M	5	PUR, halogen-free, shielded, violet	   
17062	0975 254 102/2 M	5	PUR, halogen-free, shielded, violet	   
12502	0975 254 102/3 M	5	PUR, halogen-free, shielded, violet	   
12501	0975 254 102/5 M	5	PUR, halogen-free, shielded, violet	   
34625	0975 254 102/10 M	5	PUR, halogen-free, shielded, violet	   
62291	0975 254 102/15 M	5	PUR, halogen-free, shielded, violet	   
47928	0975 254 102/20 M	5	PUR, halogen-free, shielded, violet	   
47929	0975 254 102/25 M	5	PUR, halogen-free, shielded, violet	   
9958	0975 254 132/0.3 M	5	PUR, halogen-free, shielded, violet	  
9959	0975 254 132/0.6 M	5	PUR, halogen-free, shielded, violet	  
9960	0975 254 132/1 M	5	PUR, halogen-free, shielded, violet	  
934726003	0975 254 132/2 M	5	PUR, halogen-free, shielded, violet	  
5221	0975 254 132/3 M	5	PUR, halogen-free, shielded, violet	  
934726001	0975 254 132/5 M	5	PUR, halogen-free, shielded, violet	  
934726004	0975 254 132/10 M	5	PUR, halogen-free, shielded, violet	  
9961	0975 254 132/15 M	5	PUR, halogen-free, shielded, violet	  
9962	0975 254 132/20 M	5	PUR, halogen-free, shielded, violet	  
9963	0975 254 132/25 M	5	PUR, halogen-free, shielded, violet	  

Single-Ended Overmolded M12 Data Cordsets – CANopen®/DeviceNet™ Female Connectors

Technical Information

Product Description		
Order Designation	0935 253 105	0935 253 106
		
Description	CANopen®/DeviceNet™ overmolded cordset, thin cable, M12 female connector, straight, with screw coupling, A-coding, 5-pin	CANopen®/DeviceNet™ overmolded cordset, thin cable, M12 female connector, angled, with screw coupling, A-coding, 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	-
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		



*a = O-ring • L = Standard length of cable

Pin Assignment

5-pin, A-coding





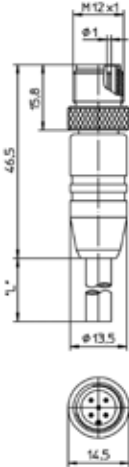
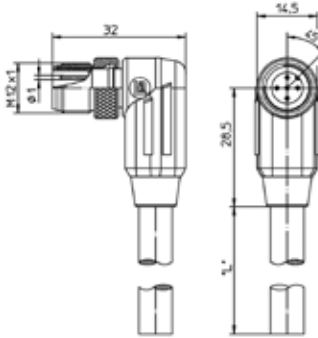
- 1 = shield, blank
- 2 = +24 V, red
- 3 = GND (0 V), black
- 4 = CAN_H, white
- 5 = CAN_L, blue

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
4994	0935 253 105/0.3 M	5	PUR, halogen-free, black	
68012	0935 253 105/0.6 M	5	PUR, halogen-free, black	
10972	0935 253 105/1 M	5	PUR, halogen-free, black	
15735	0935 253 105/2 M	5	PUR, halogen-free, black	
10973	0935 253 105/3 M	5	PUR, halogen-free, black	
10974	0935 253 105/5 M	5	PUR, halogen-free, black	
15734	0935 253 105/10 M	5	PUR, halogen-free, black	
27310	0935 253 105/15 M	5	PUR, halogen-free, black	
18313	0935 253 105/20 M	5	PUR, halogen-free, black	
44339	0935 253 105/25 M	5	PUR, halogen-free, black	
9964	0935 253 106/0.3 M	5	PUR, halogen-free, black	
9965	0935 253 106/0.6 M	5	PUR, halogen-free, black	
72440	0935 253 106/1 M	5	PUR, halogen-free, black	
934637009	0935 253 106/2 M	5	PUR, halogen-free, black	
92496	0935 253 106/3 M	5	PUR, halogen-free, black	
72442	0935 253 106/5 M	5	PUR, halogen-free, black	
6660	0935 253 106/10 M	5	PUR, halogen-free, black	
11155	0935 253 106/15 M	5	PUR, halogen-free, black	
9968	0935 253 106/20 M	5	PUR, halogen-free, black	
9969	0935 253 106/25 M	5	PUR, halogen-free, black	

Single-Ended Overmolded M12 Data Cordsets – CANopen®/DeviceNet™ Male Connectors

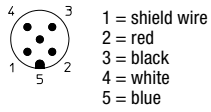
Technical Information

Product Description		
Order Designation	0935 253 104	0935 253 107
		
Description	CANopen®/DeviceNet™ overmolded cordset, thin cable, M12 male connector, straight, with screw coupling, A-coding, 5-pin	CANopen®/DeviceNet™ overmolded cordset, thin cable, M12 male connector, angled, with screw coupling, A-coding, 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	–
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

5-pin, A-coding



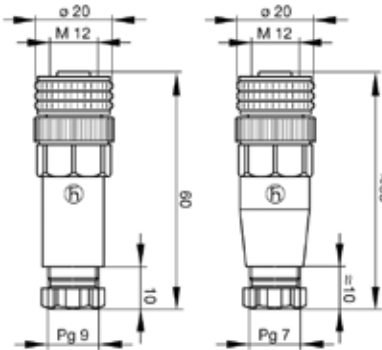
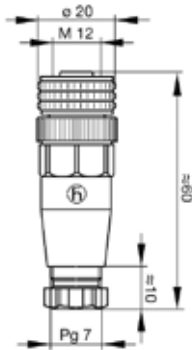


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934637388	0935 253 104/0.3 M	5	PUR, halogen-free, black	
83982	0935 253 104/0.6 M	5	PUR, halogen-free, black	
10969	0935 253 104/1 M	5	PUR, halogen-free, black	
30602	0935 253 104/2 M	5	PUR, halogen-free, black	
10970	0935 253 104/3 M	5	PUR, halogen-free, black	
10971	0935 253 104/5 M	5	PUR, halogen-free, black	
18314	0935 253 104/10 M	5	PUR, halogen-free, black	
27309	0935 253 104/15 M	5	PUR, halogen-free, black	
54879	0935 253 104/20 M	5	PUR, halogen-free, black	
107860	0935 253 104/25 M	5	PUR, halogen-free, black	
9970	0935 253 107/0.3 M	5	PUR, halogen-free, black	
9972	0935 253 107/0.6 M	5	PUR, halogen-free, black	
9975	0935 253 107/1 M	5	PUR, halogen-free, black	
9976	0935 253 107/2 M	5	PUR, halogen-free, black	
92481	0935 253 107/3 M	5	PUR, halogen-free, black	
268	0935 253 107/5 M	5	PUR, halogen-free, black	
9977	0935 253 107/10 M	5	PUR, halogen-free, black	
9978	0935 253 107/15 M	5	PUR, halogen-free, black	
9979	0935 253 107/20 M	5	PUR, halogen-free, black	
9980	0935 253 107/25 M	5	PUR, halogen-free, black	

Field Attachable M12 Connectors for Actuators and Sensors – Standard Female Connectors



















Technical Information

Product Description		
Order Designation	ELKA	ELKA... transparent
		
Description	Field attachable connector, M12 female connector, straight, with screw coupling, assembly using screw-type terminals, strain relief via clamping cage	Field attachable connector, M12 female connector, straight, with screw coupling, assembly using screw-type terminals, electronics unit for LED indicators can be mounted, strain relief via clamping cage
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	CSA	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PA	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, Sn (Au versions: CuZn, Au)	
Screw Coupling Material	ZnAl/Ni (ELKA 4012 K PG 7: PA plastic)	
Mechanical Data		
Degree of Protection	IP65, IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment

4-pin	5-pin
 <p>1 = brown 2 = white 3 = blue 4 = black 5 = n.c.</p>	 <p>1 = brown 2 = white 3 = blue 4 = black 5 = n.c.</p>



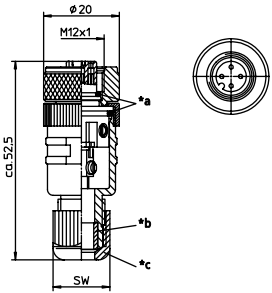
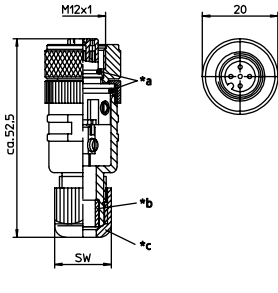
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
933139100	ELKA 4012 PG 7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 
933725100	ELKA 4012 K PG 7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 
933139500	ELKA 4012 PG 7 Au	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 
933169100	ELKA 4012 PG 9	4	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (PG 9)	 
933169500	ELKA 4012 PG 9 Au	4	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (PG 9)	 
933170100	ELKA 5012 PG 7	5	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 
933171100	ELKA 5012 PG 9	5	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (PG 9)	 
933171500	ELKA 5012 PG 9 Au	5	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (PG 9)	 
933210199	ELKA 4012 PG 7 transparent	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 

Conversion table mm² to AWG on page 20.

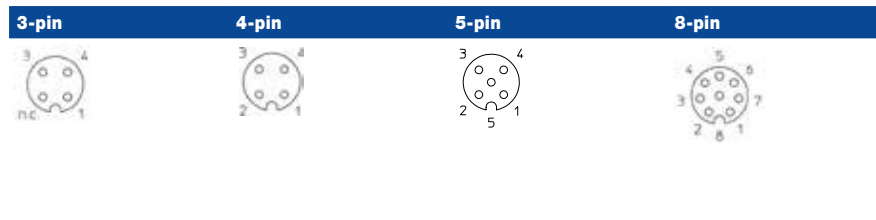
Field Attachable M12 Connectors for Actuators and Sensors – Standard Female Connectors

Technical Information

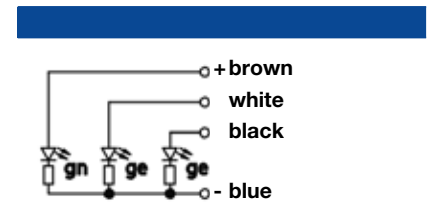
Product Description		
Order Designation	RKC	RKC/LED
		
Description	Field attachable connector, M12 female connector, straight, with screw coupling, assembly using screw-type terminals	Field attachable connector, M12 female connector, straight, with screw coupling and LED operation and function indicators, assembly using screw-type terminals, including printed circuit board
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PBT	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn (8-pin: CuZn, gold over nickel plating)	CuZn, copper underlay, CuSnZn
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	24 V DC
Rated Current	4 A (8-pin 2 A)	4 A
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Seal • *c = Cap nut

Pin Assignment



Circuit Diagram





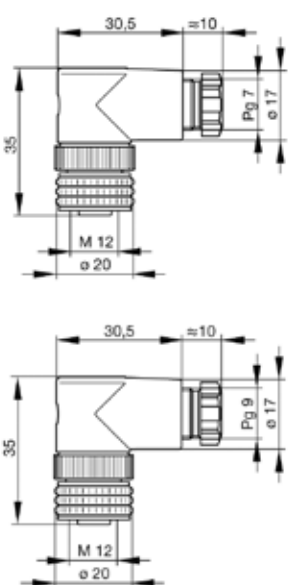
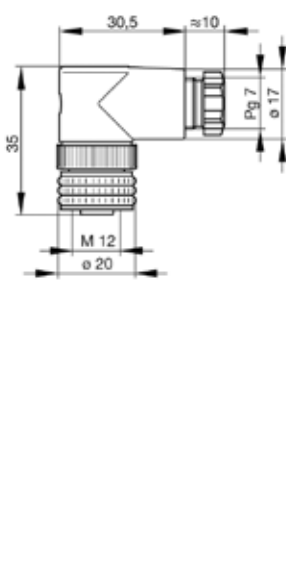
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
11212	RKC 4/3/7	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	
11213	RKC 4/3/9	3	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	
11214	RKC 4/7	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	
11215	RKC 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	
11220	RKC 5/7	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	
11221	RKC 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	
44995	RKC 8/9	8	screw	max. 0.50 mm ²	Ø 4.0 to 8.0 mm (AF 19)	
69993	RKC/LED 4/7	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	
93983	RKC/LED 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	

Conversion table mm² to AWG on page 20.

Field Attachable M12 Connectors for Actuators and Sensors – Standard Female Connectors















Technical Information

Product Description		
Order Designation	ELWIKA	ELWIKA... transparent
		
Description	Field attachable connector, M12 female connector, angled, with screw coupling, assembly using screw-type terminals, strain relief via clamping cage	Field attachable connector, M12 female connector, angled, with screw coupling, assembly using screw-type terminals, electronics unit for LED indicators can be mounted, strain relief via clamping cage
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	CSA	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PA	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn/Sn (ELWIKA 5012 PG 9 Au: CuZn/Au)	
Screw Coupling Material	ZnAl/Ni (ELWIKA 4012 K PG 7: PA plastic)	
Mechanical Data		
Degree of Protection	IP65, IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment

4-pin	5-pin
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = n.c. 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = n.c.



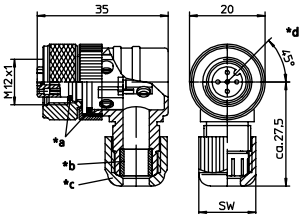
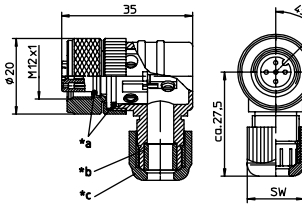
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
933172100	ELWIK A 4012 PG 7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 
933726100	ELWIK A 4012 K PG 7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 
933174100	ELWIK A 4012 PG 9	4	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (PG 9)	 
933175100	ELWIK A 5012 PG 7	5	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 
933176100	ELWIK A 5012 PG 9	5	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (PG 9)	 
933176500	ELWIK A 5012 PG 9 Au	5	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (PG 9)	 
933173199	ELWIK A 4012 PG 7 transparent	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (PG 7)	 

Conversion table mm² to AWG on page 20.

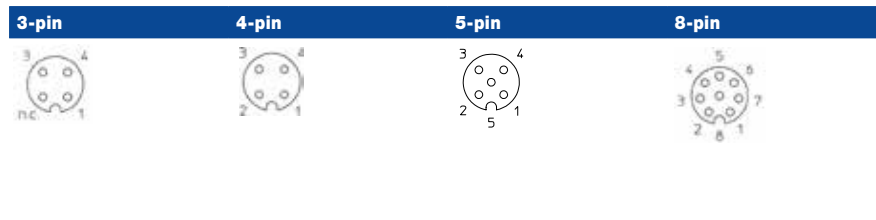
Field Attachable M12 Connectors for Actuators and Sensors – Standard Female Connectors

Technical Information

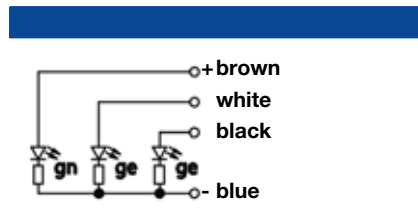
Product Description		
Order Designation	RKCW	RKCW/LED
		
Description	Field attachable connector, M12 female connector, angled, with screw coupling, assembly using screw-type terminals	Field attachable connector, M12 female connector, angled, with screw coupling and LED operation and function indicators, assembly using screw-type terminals, including printed circuit board
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PBT	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn (8-pin: CuZn, nickel underlay and gold-plated)	CuZn, copper underlay, CuSnZn
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	24 V DC
Rated Current	4 A (8-pin 2 A)	4 A
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Seal • *c = Cap nut • *d = Insert can be rotated 90°

Pin Assignment



Circuit Diagram





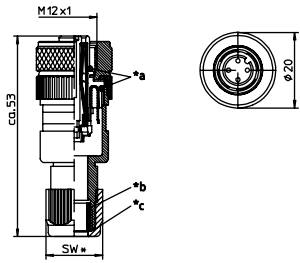
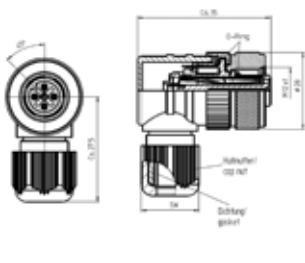
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
11256	RKCW 4/3/7	3	screw	max. 0.75 mm ²	∅ 3.0 to 6.5 mm (AF 15)	UL
11257	RKCW 4/3/9	3	screw	max. 0.75 mm ²	∅ 4.0 to 8.0 mm (AF 19)	UL
11258	RKCW 4/7	4	screw	max. 0.75 mm ²	∅ 3.0 to 6.5 mm (AF 15)	UL
11259	RKCW 4/9	4	screw	max. 0.75 mm ²	∅ 4.0 to 8.0 mm (AF 19)	UL
11260	RKCW 5/7	5	screw	max. 0.75 mm ²	∅ 3.0 to 6.5 mm (AF 15)	UL
11261	RKCW 5/9	5	screw	max. 0.75 mm ²	∅ 4.0 to 8.0 mm (AF 19)	UL
45006	RKCW 8/9	8	screw	max. 0.50 mm ²	∅ 4.0 to 8.0 mm (AF 19)	
69994	RKCW/LED 4/7	4	screw	max. 0.75 mm ²	∅ 3.0 to 6.5 mm (AF 15)	UL
93984	RKCW/LED 4/9	4	screw	max. 0.75 mm ²	∅ 4.0 to 8.0 mm (AF 19)	UL

Conversion table mm² to AWG on page 20.

Field Attachable M12 Connectors for Actuators and Sensors – Unshielded Female Connectors

Technical Information

Product Description		
Order Designation	RKCC	RKCWQ
		
Description	Field attachable connector, M12 female connector, straight, with screw coupling, assembly using spring-type terminals	Field attachable connector, M12 female connector, angled, with screw coupling, assembly using spring-type terminals
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PBT	
Contact Holder Material	PBT	
Contact Material/Surface Finish	Stainless steel, silver-plated, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Seal • *c = Cap nut



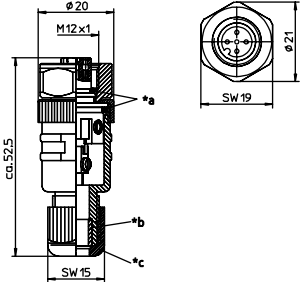
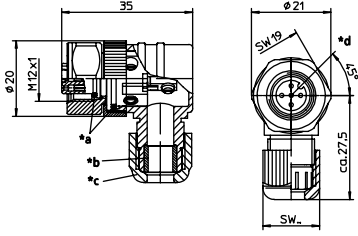
Pin Assignment**4-pin****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
58836	RKCQ 4/7	4	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 3.0 to 6.5 mm (AF 15)	
69507	RKCQ 4/9	4	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 4.0 to 8.0 mm (AF 19)	
103747	RKCWQ 4/7	4	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 4.0 to 6.5 mm (AF 15)	
103751	RKCWQ 4/9	4	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 4.0 to 8.0 mm (AF 19)	

Conversion table mm² to AWG on page 20.

Field Attachable M12 Connectors for Actuators and Sensors – Female Connectors for Food & Beverage

Technical Information

Product Description		
Order Designation	RKCN	RKCWN
		
Description	Field attachable connector, M12 female connector, straight, with stainless steel hexagonal screw coupling, assembly using screw-type terminals	Field attachable connector, M12 female connector, angled, with stainless steel hexagonal screw coupling, assembly using screw-type terminals
Note	Especially suitable for use in the food processing equipment.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C (8-pin -25 °C to +85 °C)	
Housing Material/Grip	PBT (8-pin: PA)	
Contact Holder Material	PBT (8-pin: PA)	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn (8-pin: CuZn, gold over nickel plating)	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	4 to 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Seal • *c = Cap nut • *d = Insert can be rotated 90°

Pin Assignment






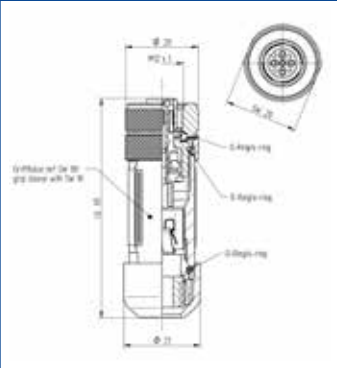
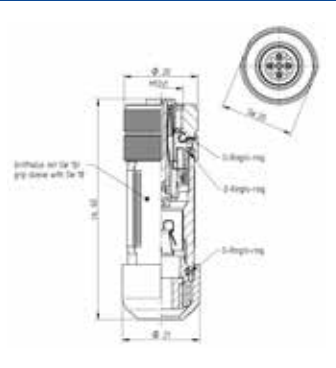
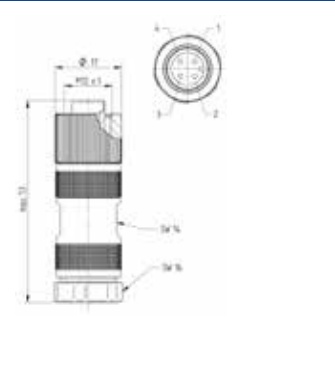
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
18321	RKCN 4/7	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL
30544	RKCN 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL
46897	RKCN 5/7	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL
46594	RKCN 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL
51351	RKCN 8/9	8	screw	max. 0.50 mm ²	Ø 3.0 to 6.5 mm (AF 15)	
18322	RKCWN 4/7	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL
30545	RKCWN 4/9	4	screw	max. 0.50 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL
28331	RKCWN 5/7	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL
47735	RKCWN 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL

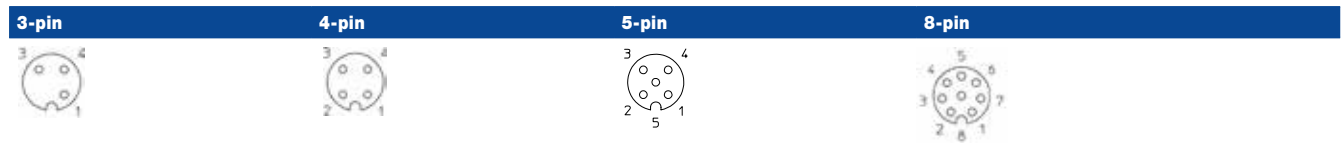
Conversion table mm² to AWG on page 20.

Field Attachable M12 Connectors for Actuators and Sensors – Shielded Female Connectors

Technical Information

Product Description			
Order Designation	RKCS	RKCQS	EF 12S...
			
Description	Field attachable connector, M12 female connector, with screw coupling, can be shielded, assembly using screw-type terminals, A-coding	Field attachable connector, M12 female connector, with screw coupling, can be shielded, assembly using spring-type terminals, A-coding	Field attachable connector, M12 female connector, with screw coupling, can be shielded, assembly using insulation displacement termination
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	-		UL
Technical Data			
Ambient Temperature	-25 °C to +90 °C		-25 °C to +85 °C
Housing Material/Grip	GD-ZnAl, nickel-plated		CuZn, nickel-plated
Contact Holder Material	PBT, RKCS 8/9: PA	PBT	PA
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	Spring steel, silver-plated and gold-plated	CuSn, gold-plated
Screw Coupling Material	CuZn, nickel-plated		CuZn, nickel-plated
Mechanical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	3 to 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	4-pin: 50 V AC/60 V DC	4 to 5-pin: 50 V AC/60 V DC
Rated Current	4 to 5-pin 4 A, 8-pin 2 A	4 A	
Pollution Degree	3		
Technical Drawing			
			

Pin Assignment





Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
7376	RKCS 4/7	4	screw	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	
56437	RKCS 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	
56439	RKCS 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	
59923	RKCS 8/9	8	screw	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	
11156	RKCQS 4/3/9	3	spring	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	
69511	RKCQS 4/9	4	spring	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	
934446003	EF 12S4A	4	Insulation Displacement Termination	0.25 to 0.34 mm ²	Ø 6.0 to 8.0 mm	
934446004	EF 12S5A	5	Insulation Displacement Termination	0.25 to 0.34 mm ²	Ø 6.0 to 8.0 mm	

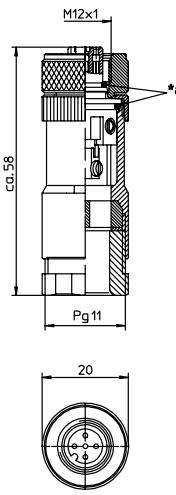
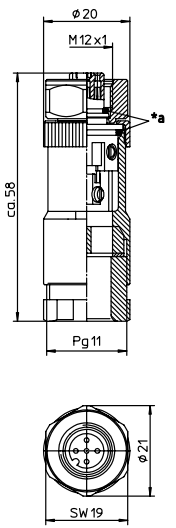
Conversion table mm² to AWG on page 20.

Field Attachable M12 Duo Connectors for Actuators and Sensors – Duo Female Connectors

Technical Information

Product Description		
Order Designation	RKC... DUO	RKCN... DUO
		
Description	Field attachable connector, M12 Duo female connector, straight, with screw coupling, for connection of two cables, assembly using screw-type terminals	Field attachable connector, M12 Duo female connector, straight, with stainless steel hexagonal screw coupling, for connection of two cables, assembly using screw-type terminals
Note	–	Especially suitable for use in the food processing equipment.
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	–	

Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PBT	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	
Screw Coupling Material	CuZn, nickel-plated	Stainless steel
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	4 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	

Technical Drawing		
		

*a = O-ring

Pin Assignment






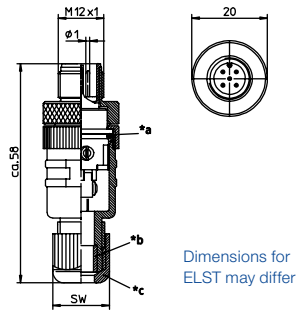
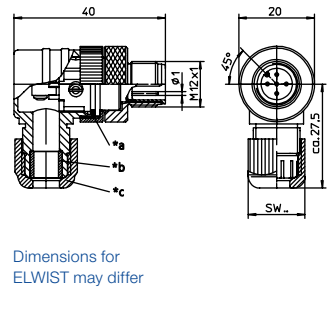
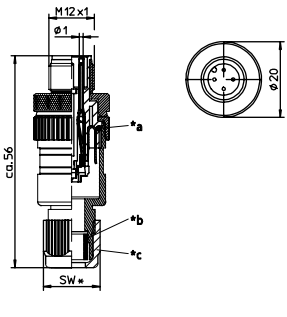
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Range	Characteristics
18235	RKC 4/DUO	4	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	
18234	RKC 5/DUO	5	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	
49913	RKC 8/DUO	8	max. 0.50 mm ²	2 x 3 mm/2 x 5 mm	
18237	RKCN 4/DUO	4	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	
42612	RKCN 5/DUO	5	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	

Conversion table mm² to AWG on page 20.





Field Attachable M12 Connectors for Actuators and Sensors – Standard Male Connectors

Technical Information

Product Description			
Order Designation	RSC/ELST	RSCW/ELWIST	RSCQ
			
Description	Field attachable connector, M12 male connector, straight, with screw coupling, assembly using screw-type terminals	Field attachable connector, M12 male connector, angled, with screw coupling, assembly using screw-type terminals	Field attachable connector, M12 male connector, straight, with screw coupling, assembly using spring-type terminals
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	RSC/RSCW: UL (8-pin assembled: no UL approval) ELST/ELWIST: CSA		–
Technical Data			
Ambient Temperature	-25 °C to +90 °C		
Housing Material/Grip	PA 66		PBT
Contact Holder Material	PA 66		PBT
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn (8-pin: nickel underlay, gold-plated)		Stainless steel, silver-plated, gold-plated
Screw Coupling Material	ZnAl Cu		CuZn, nickel-plated
Mechanical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC		3 to 4-pin: 230 V AC/DC
Rated Current	3 and 5-pin 4 A, 8-pin 2 A		4 A
Pollution Degree	3		
Technical Drawing			
			

*a = O-ring • *b = Seal • *c = Cap nut

Pin Assignment

3-pin	4-pin	5-pin	8-pin
			
		Contact 5 leading	



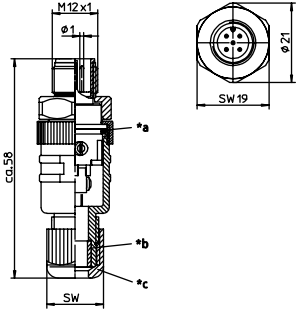
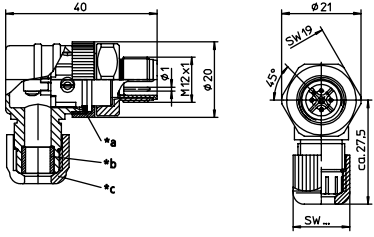
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
933098100	ESLT 4012 PG 7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (AF 15)	 
933727100	ELST 4012 K PG7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (AF 15)	 
933098500	ELST 4012 PG 7 Au	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (AF 15)	 
933162100	ELST 4012 PG 9	4	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (AF 19)	 
933162500	ELST 4012 PG 9 Au	4	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (AF 19)	 
933163100	ELST 5012 PG 7	5	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (AF 15)	 
933164100	ELST 5012 PG 9	5	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (AF 19)	 
933164500	ELST 5012 PG 9 Au	5	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (AF 19)	 
11576	RSC 3/7	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	 
11577	RSC 3/9	3	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	 
11584	RSC 4/7	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	 
11585	RSC 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	 
11590	RSC 5/7	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	 
11591	RSC 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	 
44971	RSC 8/9	8	screw	max. 0.50 mm ²	Ø 4.0 to 8.0 mm (AF 19)	
933165100	ELWIST 4012 PG 7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (AF 15)	 
933728100	ELWIST 4012 K PG 7	4	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (AF 15)	 
933166100	ELWIST 4012 PG 9	4	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (AF 19)	 
933167100	ELWIST 5012 PG 7	5	screw	max. 0.75 mm ²	Ø 4.0 to 6.0 mm (AF 15)	 
933168100	ELWIST 5012 PG 9	5	screw	max. 0.75 mm ²	Ø 6.0 to 8.0 mm (AF 19)	 
11599	RSCW 3/7	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	 
11600	RSCW 3/9	3	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	 
11603	RSCW 4/7	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	 
11604	RSCW 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	 
11605	RSCW 5/7	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	 
11606	RSCW 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	 
44994	RSCW 8/9	8	screw	max. 0.50 mm ²	Ø 4.0 to 8.0 mm (AF 19)	
71306	RSCQ 3/7	3	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 3.0 to 6.5 mm (AF 15)	
71307	RSCQ 3/9	3	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 4.0 to 8.0 mm (AF 19)	
58838	RSCQ 4/7	4	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 3.0 to 6.5 mm (AF 15)	
69225	RSCQ 4/9	4	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 4.0 to 8.0 mm (AF 19)	

Conversion table mm² to AWG on page 20.

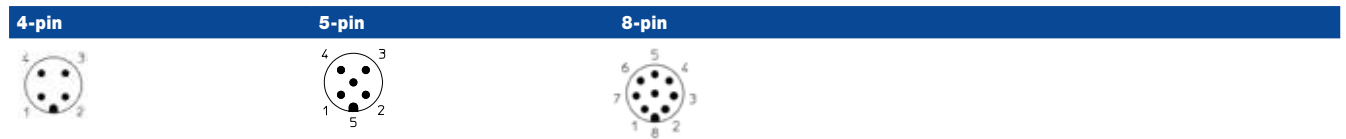
Field Attachable M12 Connectors for Actuators and Sensors – Male Connectors for Food & Beverage

Technical Information

Product Description		
Order Designation	RSCN	RSCWN
		
Description	Field attachable connector, M12 male connector, straight, with stainless steel hexagonal screw coupling, assembly using screw-type terminals	Field attachable connector, M12 male connector, angled, with stainless steel hexagonal screw coupling, assembly using screw-type terminals
Note	Especially suitable for use in the food processing equipment.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C, 8-pin: -25 °C to +85 °C	-25 °C to +90 °C
Housing Material/Grip		PBT
Contact Holder Material		PBT
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn (8-pin: nickel underlay, gold-plated)	CuZn, copper underlay, CuSnZn
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC
Rated Current	4 to 5-pin 4 A, 8-pin 2 A	4 A
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = Seal • *c = Cap nut

Pin Assignment






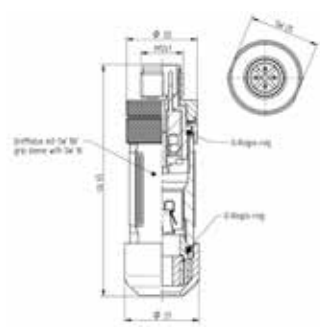
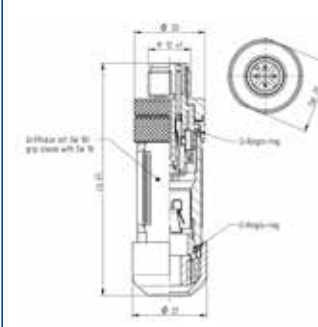
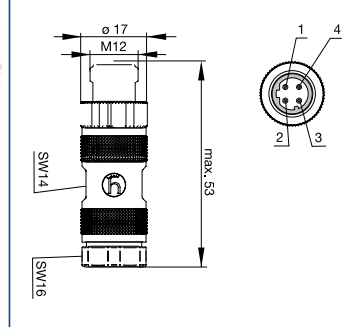
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
18319	RSCN 4/7	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL
30542	RSCN 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL
28330	RSCN 5/7	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL
30546	RSCN 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL
51352	RSCN 8/9	8	screw	max. 0.50 mm ²	Ø 4.0 to 8.0 mm (AF 19)	
18320	RSCWN 4/7	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL
30543	RSCWN 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL
46901	RSCWN 5/7	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL
47756	RSCWN 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL




Conversion table mm² to AWG on page 20.

Field Attachable M12 Connectors for Actuators and Sensors – Shielded Male Connectors

















Technical Information

Product Description			
Order Designation	RSCS	RSCQS	EM12S...
			
Description	Field attachable connector, M12 male connector, straight, with screw coupling, can be shielded, assembly using screw-type terminals, A-coding	Field attachable connector, M12 male connector, straight, with screw coupling, can be shielded, assembly using spring-type terminals, A-coding	Field attachable connector, M12 male connector, straight, with screw coupling, assembly using insulation displacement termination
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	-		UL
Technical Data			
Ambient Temperature	-12 °C to +90 °C		-25 °C to +85 °C
Housing Material/Grip	GD-ZnAl, nickel-plated		CuZn, nickel-plated
Contact Holder Material	PBT, RSCS 8/9: PA	PBT	PA
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	Stainless steel, silver-plated and gold-plated	CuSn, gold-plated
Screw Coupling Material	CuZn, nickel-plated		
Mechanical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	4 to 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	3 to 4-pin: 50 V AC/60 V DC	4 to 5-pin: 50 V AC/60 V DC
Rated Current	4 to 5-pin 4 A, 8-pin 2 A	4 A	
Pollution Degree	3		
Technical Drawing			
			

Pin Assignment

4-pin	5-pin	8-pin
		



Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
56436	RSCS 4/9	4	screw	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	 
56438	RSCS 5/9	5	screw	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	 
59922	RSCS 8/9	8	screw	max. 0.75 mm ²	Ø 4.0 to 9.0 mm	 
71308	RSCQS 3/9	3	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 4.0 to 9.0 mm	 
69509	RSCQS 4/9	4	spring	0.14 to 0.50 mm ² , 0.14 mm ² with ferrule	Ø 4.0 to 9.0 mm	 
934445003	EM 12S4A	4	Insulation Displacement Termination	0.25 to 0.34 mm ²	Ø 6.0 to 8.0 mm	  
934445004	EM 12S5A	5	Insulation Displacement Termination	0.25 to 0.34 mm ²	Ø 6.0 to 8.0 mm	  

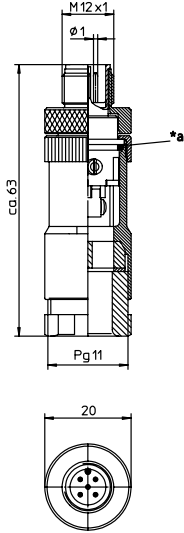
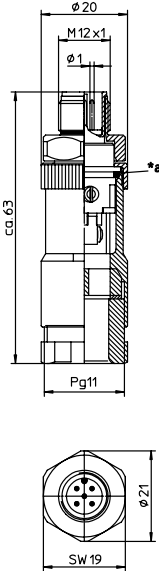
Conversion table mm² to AWG on page 20.

Field Attachable M12 Duo Connectors for Actuators and Sensors – Duo Male Connectors

Technical Information

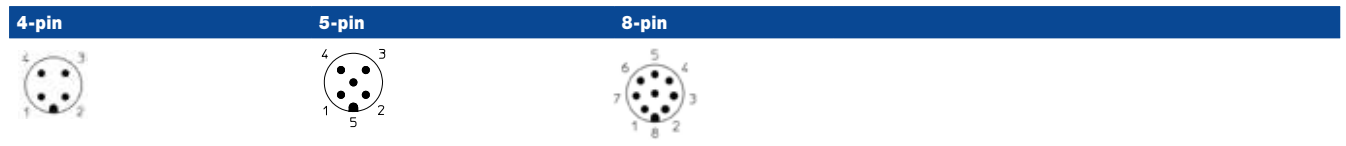
Product Description		
Order Designation	RSC... DUO	RSCN... DUO
		
Description	Field attachable connector, M12 Duo male connector, straight, with screw coupling, for connection of two cables, assembly using screw-type terminals	Field attachable connector, M12 Duo male connector, straight, with stainless steel hexagonal screw coupling, for connection of two cables, assembly using screw-type terminals
Note	–	Especially suitable for use in the food processing equipment.
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	–	

Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PBT	
Contact Holder Material	PA	PBT
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	
Screw Coupling Material	CuZn, nickel-plated	Stainless steel
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	4 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	








Technical Drawing		
		

*a = O-ring

Pin Assignment





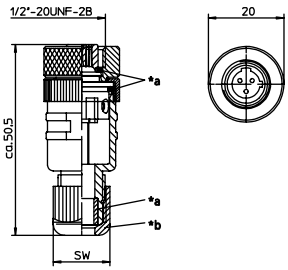
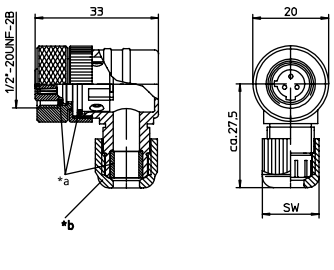
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Range	Characteristics
18236	RSC 4/DUO	4	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	
18233	RSC 5/DUO	5	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	
49569	RSC 8/DUO	8	max. 0.50 mm ²	2 x 3 mm/2 x 5 mm	
18323	RSCN 4/DUO	4	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	 
45491	RSCN 5/DUO	5	max. 0.75 mm ²	2 x 3 mm/2 x 5 mm	 

Conversion table mm² to AWG on page 20.

Field Attachable 1/2" UNF Connectors for Actuators and Sensors – Female Connectors

Technical Information













Product Description		
Order Designation	RKC 3U	RKCW 3U
		
Description	Field attachable connector, 1/2" UNF female connector, straight, C- or U-coding, with screw coupling, assembly using screw-type terminals, 3-pin	Field attachable connector, 1/2" UNF female connector, angled, C- or U-coding, with screw coupling, assembly using screw-type terminals, 3-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	based on IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PBT	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

* a = Seals • *b = Cap nut

Pin Assignment**3-pin, U-coding**

1 = green/yellow
 2 = blue
 3 = brown



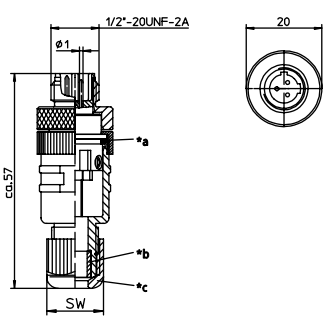
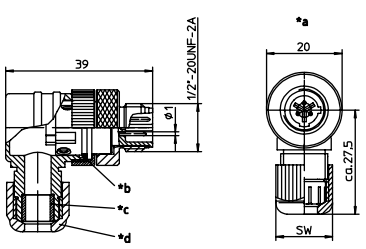
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
11210	RKC 3U/7	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm	UL   
11211	RKC 3U/9	3	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm	UL   
11254	RKCW 3U/7	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm	UL   
11255	RKCW 3U/9	3	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm	UL   

Conversion table mm² to AWG on page 20.













Field Attachable 1/2" UNF Connectors for Actuators and Sensors – Male Connectors

Technical Information

Product Description		
Order Designation	RSC 3U	RSCW 3U
		
Description	Field attachable connector, 1/2" UNF male connector, straight, C- (or U-)coding, with screw coupling, assembly using screw-type terminals, 3-pin	Field attachable connector, 1/2" UNF male connector, angled, C- (or U-)coding, with screw coupling, assembly using screw-type terminals, 3-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	based on IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	PBT	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

RSC 3U: *a = Insert can be rotated 90° • *b= O-ring • *c = Seal • *d = Cap nut
 RSCW 3U: *a = O-ring • *b = Seal • *c = Cap nut

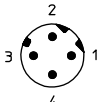
Pin Assignment**3-pin, U-coding****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
11582	RSC 3U/7	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL   
11583	RSC 3U/9	3	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL   
11601	RSCW 3U/7	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	UL   
11602	RSCW 3U/9	3	screw	max. 0.75 mm ²	Ø 4.0 to 8.0 mm (AF 19)	UL   









Conversion table mm² to AWG on page 20.

Pin Assignment

4-pin, D-coding




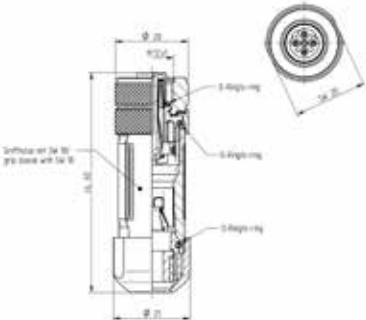
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
934828002	RSCIS 4D/9	4	IDC	0.25 to 0.34 mm ²	PG 9: Ø 6.0 to 8.0 mm	   
934828001	BRSCIS 4D/9	4	IDC	0.25 to 0.34 mm ²	PG 9: Ø 6.0 to 8.0 mm	   

Conversion table mm² to AWG on page 20.

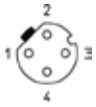
Field Attachable M12 Data Connectors – Industrial Ethernet – Female Connectors

Technical Information






Product Description	
Order Designation	0986 EFC 105
	
Description	Field attachable connector, M12 female connector, with screw coupling, shieldable, assembly using spring-type terminal, 4-pin, D-coding
Note	Transmission properties for Cat5 and Cat5e as per ISO IEC 11801 or TIA/EIA-568-B.2.
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	–
Technical Data	
Ambient Temperature	-25 °C to +90 °C
Housing Material/Grip	GD-ZnAl, nickel-plated
Contact Holder Material	PBT
Contact Material/Surface Finish	Stainless steel, silver-plated and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

Pin Assignment

4-pin, D-coding



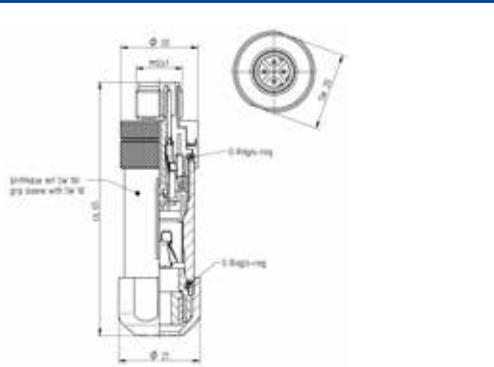
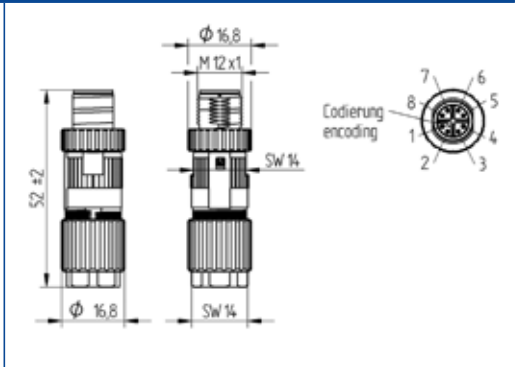


Order Information

Order No.	Order Designation	No. of Pins	Cable Range	Characteristics
104584	0986 EFC 105	4	Ø 4.0 to 9.0 mm	    

Field Attachable M12 Data Connectors – Industrial Ethernet – Male Connectors



Technical Information

Product Description		
Order Designation	0986 EMC 102	0986 EMC 600
		
Description	Field attachable Industrial Ethernet connector, M12 male connector, with screw coupling, shielded, assembly using spring-type terminals, 4-pin, D-coding	Field attachable Industrial Ethernet connector, M12 male connector, with screw coupling, shielded, assembly using insulation displacement termination, 8-pin, X-coding
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	based on IEC 61076-2-101	E DIN EN 61076-2-109
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	-25 °C to +85 °C
Housing Material/Grip	GD-ZnAl, nickel-plated	
Contact Holder Material	PBT	PA
Contact Material/Surface Finish	Stainless steel, silver-plated and gold-plated	CuZn, gold-plated
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	≤ 10 mΩ
Operating Voltage	50 V AC/60 V DC	48 V AC/DC
Rated Current	4 A	0.5 A
Pollution Degree	3	2
Technical Drawing		
		

Pin Assignment



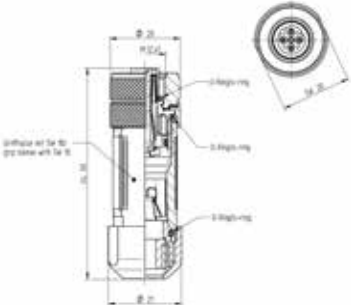
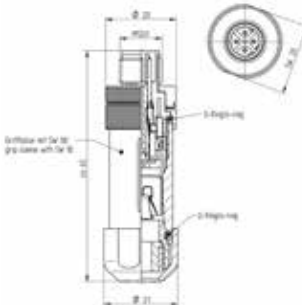


Order Information

Order No.	Order Designation	No. of Pins	Cable Range	Characteristics
71327	0986 EMC 102	4	Ø 4.0 to 9.0 mm	
934637032	0986 EMC 600	8	Ø 4.0 to 9.0 mm	

Field Attachable M12 Data Connectors – Industrial Ethernet with Railway Authorities License

Technical Information

Product Description		
Order Designation	0986 EFC 107	0986 EMC 105
		
Description	Field attachable connector, M12 female connector, with screw coupling, shielded, assembly using spring-type terminal, 4-pin, D-coding	Field attachable connector, M12 male connector, with screw coupling, shielded, assembly using spring-type terminal, 4-pin, D-coding
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	IEC 61373, DIN EN 50467, DIN EN 45545-2, DIN 5510, based on EN 50155	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	GD-ZnAl, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	Stainless steel, silver-plated and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

0986 EFC 107 Pin Assignment

4-pin, D-coding



0986 EMC 105 Pin Assignment

4-pin, D-coding



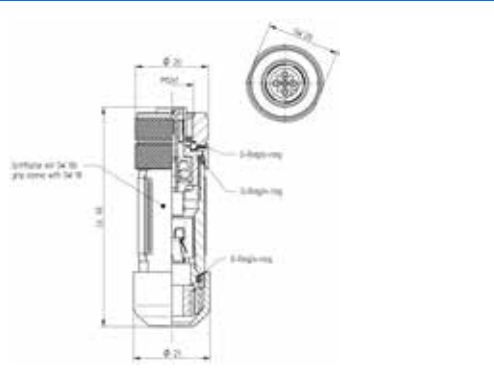
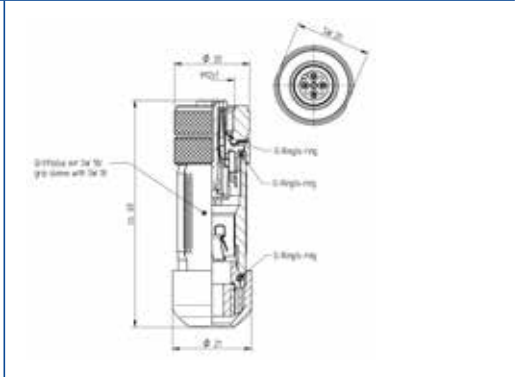


Order Information

Order No.	Order Designation	No. of Pins	Cable Range	Characteristics
109969	0986 EFC 107	4	Ø 6.7 mm	
109471	0986 EMC 105	4	Ø 6.7 mm	

Field Attachable M12 Data Connectors (PROFIBUS®) – Female Connectors






Technical Information

Product Description		
Order Designation	0976 PFC 101	0976 PFC 102
		
Description	Field attachable PROFIBUS connector, M12 female connector, with screw coupling, 5-pin, B-coding, shielded, assembly using screw-type terminals	Field attachable PROFIBUS connector, M12 female connector, with screw coupling, 4-pin, B-coding, shielded, assembly using spring-type terminals
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	based on IEC 61076-2-101
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	GD-ZnAl, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	Stainless steel, silver-plated and gold-plated
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment



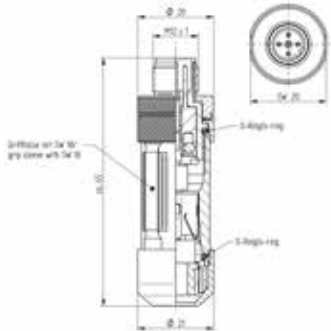
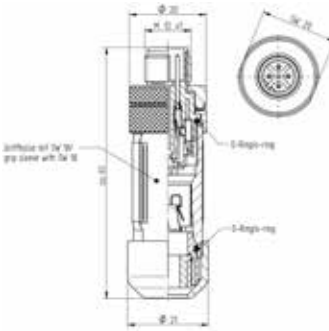


Order Information





Order No.	Order Designation	No. of Pins	Cable Range	Characteristics
66247	0976 PFC 101	5	Ø 4.0 to 9.0 mm	  
60120	0976 PFC 102	4	Ø 4.0 to 9.0 mm	 

Field Attachable M12 Data Connectors (PROFIBUS®) – Male Connectors

Technical Information



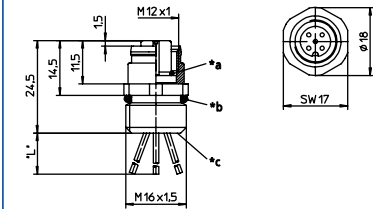
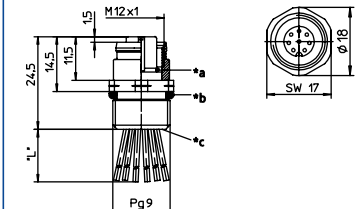
Product Description		
Order Designation	0976 PMC 101	0976 PMC 102
		
Description	Field attachable PROFIBUS connector, M12 male connector, with screw coupling, 5-pin, B-coding, shielded, assembly using screw-type terminals	Field attachable PROFIBUS connector, M12 male connector, with screw coupling, 4-pin, B-coding, shielded, assembly using spring-type terminals
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	GD-ZnAl, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, copper underlay, CuSnZn	Stainless steel, silver-plated, gold-plated
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment**4-pin, B-coding****5-pin, B-coding****Order Information**

Order No.	Order Designation	No. of Pins	Cable Range	Characteristics
66248	0976 PMC 101	5	Ø 4.0 to 9.0 mm	 
60121	0976 PMC 102	4	Ø 4.0 to 9.0 mm	 





M12 Receptacle Connectors for Actuators and Sensors – Standard Female Connectors with Stranded Hook-up Wire

Technical Information














































Product Description		
Order Designation	RKFM/0.5 M	RKF/0.5M
		
Description	Receptacle connector, M12 female connector, FIXCON-compatible, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5/M20 x 1.5 screw coupling at mounting side	Receptacle connector, M12 female connector, FIXCON-compatible, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, PG 9 screw coupling at mounting side
Note	Mounting using RSKFM 16 or RSKFM 20	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn, nickel underlay and gold-plated (3, 4, and 5-pin), CuZn, nickel underlay and gold-plated (8-pin)	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8 to 12-pin: 30 V AC/DC	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC
Rated Current	3 to 5-pin 4 A, 8-pin 2 A, 12-pin 1.5 A	3 and 5-pin 4 A, 8-pin 2 A
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • *b = O-ring supplied loose • *c = Conductor terminal area potted • L = Standard length of cable

Pin Assignment

3-pin	4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = n.c. 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red



Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
26130	RKFM 4-3/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
26129	RKFM 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
87470	RKFMN 4/0.5 M	4	stranded hook-up wire	0.34 mm ² , stainless steel design	  
26132	RKFM 5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
64874	RKFM 5B/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
26134	RKFM 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	  
86153	RKFM 12/0.5 M	12	stranded hook-up wire	0.34 mm ²	  
50575	RKFM 4/20/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
50617	RKFM 5/20/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
50616	RKFM 8/20/0.5 M	8	stranded hook-up wire	0.25 mm ²	  
11266	RKF 4-3/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
11267	RKF 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
11270	RKF 5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
52180	RKF 5B/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
11273	RKF 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	  

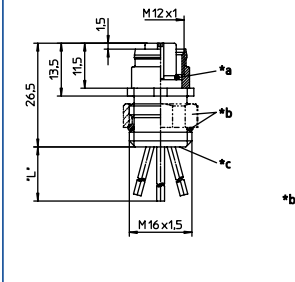
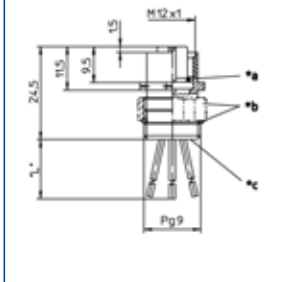
Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors for Actuators and Sensors – Standard Female Connectors with Stranded Hook-up Wire

Technical Information





Product Description		
Order Designation	RKFPM/0.5 M	RKFP/0.5 M
		
Description	Receptacle connector, M12 female connector, FIXCON-compatible, for front mounting, adjustable, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side	Receptacle connector, M12 female connector, FIXCON-compatible, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, PG 9 screw coupling at mounting side
Note	Mated with mounting nut RSKFM 16	Mated with mounting nut RSKF 9
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	

Technical Data	
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, gold over nickel plating
Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC
Rated Current	3 and 5-pin 4 A, 8-pin 2 A
Pollution Degree	3

















Technical Drawing	
	

*a = O-ring • *b = O-ring/adjusting nut supplied loose • *c = Conductor terminal area potted • L = Standard length of cable

RKFPM Pin Assignment

3-pin	4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = n.c. 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red




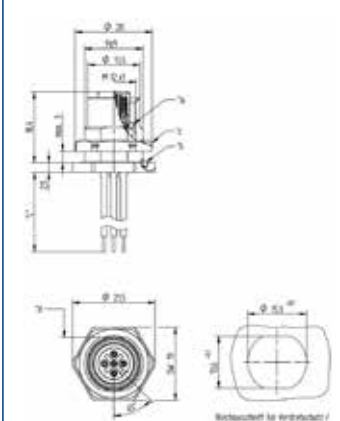
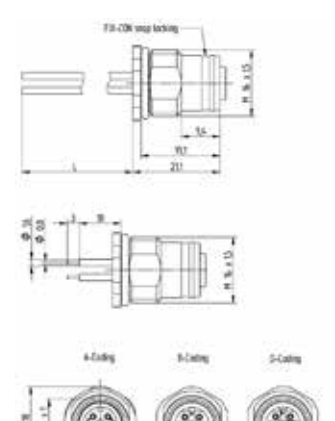
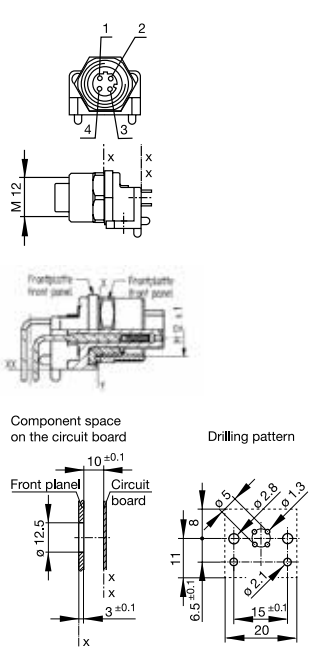
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
26136	RKFPM 4-3/0.5 M	3	stranded hook-up wire	0.34 mm ²	UL  
26137	RKFPM 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	UL  
26139	RKFPM 5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	UL  
26141	RKFPM 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	UL  
11274	RKFPM 4-3/0.5 M	3	stranded hook-up wire	0.34 mm ²	UL  
11275	RKFPM 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	UL  
11276	RKFPM 5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	UL  
17218	RKFPM 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	UL  

Conversion table mm² to AWG on page 20.





M12 Receptacle Connectors for Actuators and Sensors – Female Connectors with Stranded Hook-up Wire/Printed Circuit Board Pins

Technical Information





























Product Description			
Order Designation	RKH/0.5 M	EF 12H...	EF 12L...
			
Description	Receptacle connector, M12 female connector, FIXCON-compatible, for rear panel mounting, assembled with stranded hook-up wire, conductor terminal area potted, PG 9 screw coupling at mounting side, with mounting nut AF 18	Receptacle connector, M12 female connector, FIXCON-compatible, for rear panel mounting, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side	Receptacle connector, M12 female connector, for front and printed circuit board mounting, solder pin straight or angled
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	UL	–	UL
Technical Data			
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range		-25 °C to +90 °C, mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated		
Contact Holder Material	TPU	PA	
Contact Material/Surface Finish	CuSn, nickel underlay and gold-plated (4 and 5-pin, A-coding), CuZn, nickel underlay and gold-plated (5-pin, B-coding and 8-pin, A-coding)	CuZn, gold-plated	
Mechanical Data			
Degree of Protection	IP67, IP69K (only when mated to associated counterparts)	IP67 (only when mated to associated counterparts)	
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC	4-pin: 150 V AC/DC, 5-pin: 50 V AC/60 V DC
Rated Current	3 and 4-pin 4 A, 8-pin 2 A		
Pollution Degree	3		
Technical Drawing			
			

*a = 0-ring • b = 0-ring supplied loose • *c = Nut (AF 18) supplied loose • d = Anti-twist protection • L = Standard length of stranded hook-up wire

Pin Assignment

3-pin	4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = n.c. 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red

Order Information

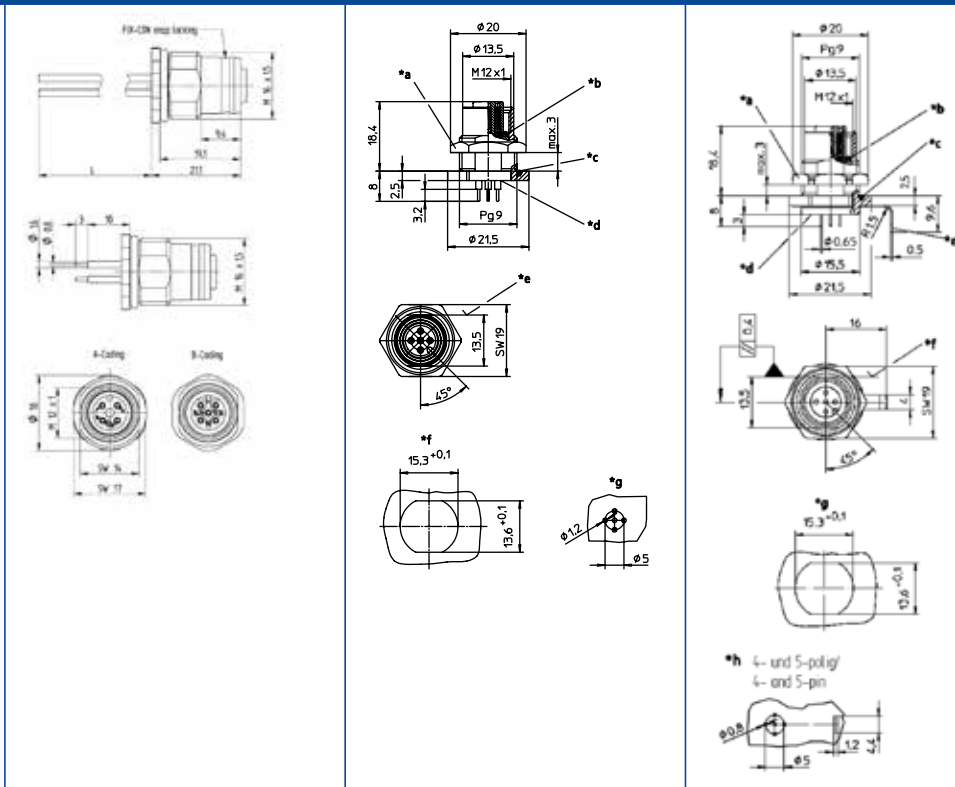
Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
61486	RKH 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
49228	RKH 5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
62596	RKH 5B/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
68807	RKH 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	  
934537001	EF12H4AFIX AU	4	stranded hook-up wire	0.34 mm ²	 
934537201	EF12H5AFIX AU	5	stranded hook-up wire	0.34 mm ²	 
933279200	EF12L4	4	PCB solder pin	-	  
933551200	EF12L5A AU	5	PCB solder pin	-	  
933395200	EF12LW4	4	PCB solder pin	-	  
933821200	EF12LW5A AU	5	PCB solder pin	-	  

Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors for Actuators and Sensors – Female Connectors with Printed Circuit Board Pins

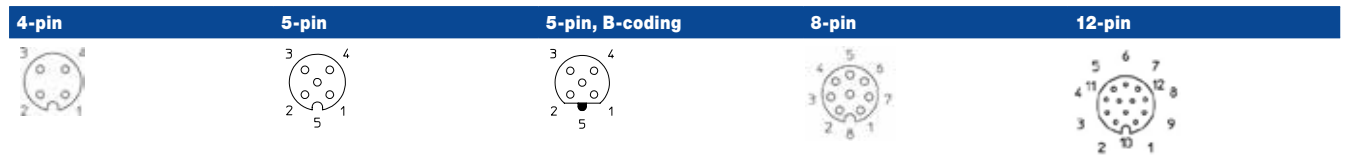
Technical Information

Product Description			
Order Designation	EF 12HL...	RKHL	RKHLS
Description	Receptacle connector, M12 female connector for rear panel mounting, PCB contacts, M16 x 1.5 screw coupling at mounting side	Receptacle connector, M12 female connector for rear panel mounting, PCB contacts, PG 9 screw coupling at mounting side	Receptacle connector, M12 female connector for rear panel mounting, with shield sheet, PCB contacts, PG 9 screw coupling at mounting side
Note	–	Mounting using RSKF 9	Mounting using RSKF 9
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	–	UL	–
Technical Data			
Ambient Temperature	-25 °C to +90 °C	-25 °C to +80 °C	4 and 5-pin -30 °C to +80 °C, 8 and 12-pin -25 °C to +80 °C
Housing Material/Grip	CuZn, nickel-plated		
Contact Holder Material	PA	TPU	
Contact Material/Surface Finish	CuZn, gold-plated	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated		
Mechanical Data			
Degree of Protection	IP67, IP68 (24 h, 1 m; only when mated to associated counterparts)	IP67 (only when mated to associated counterparts)	
Electrical Data			
Contact Resistance	≤ 10 mΩ	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8 to 12-pin: 30 V AC/DC		
Rated Current	4 to 5-pin 4 A, 8-pin 2 A, 12-pin 1.5 A		
Pollution Degree	3		
Technical Drawing			


































RKHL: *a = Nut • *b = O-ring • *c = O-ring • *d = Conductor terminal area potted • *e = Anti-twist protection • *f = Installation hole for anti-twist protection • *g = Drill pattern in printed circuit board
 RKHLS: *a = Nut • *b = O-ring • *c = O-ring • *d = Conductor terminal area potted • *e = Terminal lug/solder terminal • *f = Anti-twist protection • *g = Installation hole for anti-twist protection • *h = Drill pattern in printed circuit board

Pin Assignment


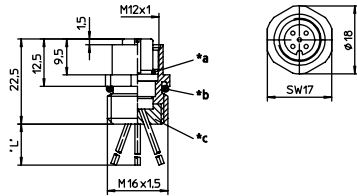


Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Characteristics
934537002	EF12HL4AFIX AU	4	PCB solder pin	 
934537202	EF12HL5AFIX AU	5	PCB solder pin	 
56334	RKHL 4/S 5.5	4	PCB solder pin	  
56335	RKHL 5/S 5.5	5	PCB solder pin	  
56347	RKHL 5B/S 5.5	5	PCB solder pin	  
62075	RKHL 8/S 5.5	8	PCB solder pin	  
104079	RKHL 12/S 5.5	12	PCB solder pin	  
104091	RKHLS 4/S 5.5	4	PCB solder pin	  
104092	RKHLS 5/S 5.5	5	PCB solder pin	  
104093	RKHLS 8/S 5.5	8	PCB solder pin	  
102735	RKHLS 12/S 5.5	12	PCB solder pin	  




M12 Receptacle Connectors for Actuators and Sensors – Female Connectors with Stranded Hook-up Wire for Food & Beverage

Technical Information










Product Description	
Order Designation	PRKFM
	
Description	Receptacle connector, M12 female connector, for front mounting, stainless steel housing, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side
Note	Mounting using RSKFM 16. Especially suitable for use in the food processing equipment.
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	UL
Technical Data	
Ambient Temperature	-25 °C to +70 °C, mind cable temperature range
Housing Material/Grip	Stainless steel
Contact Holder Material	PBT
Contact Material/Surface Finish	CuSn, nickel underlay and gold-plated (4 and 5-pin), CuZn, nickel underlay and gold-plated (8-pin)
Mechanical Data	
Degree of Protection	IP67, IP69K (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC
Rated Current	4 to 5-pin 4 A, 8-pin 2 A
Pollution Degree	3
Technical Drawing	
	

*a = O-ring • *b = O-ring supplied loose • *c = Conductor terminal area potted • L = Standard length of stranded hook-up wire

Pin Assignment

4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red



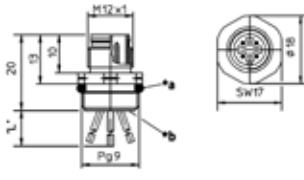
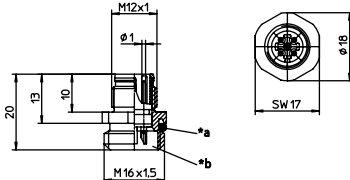
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
45740	PRKFM 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
45741	PRKFM 5/0.5 M	5	stranded hook-up wire	1 x 0.50/4 x 0.34 mm ²	  
49798	PRKFM 8/0.5 M	8	stranded hook-up wire	0.22 mm ²	  

Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors for Actuators and Sensors – Standard Male Connectors with Printed Circuit Board Pins

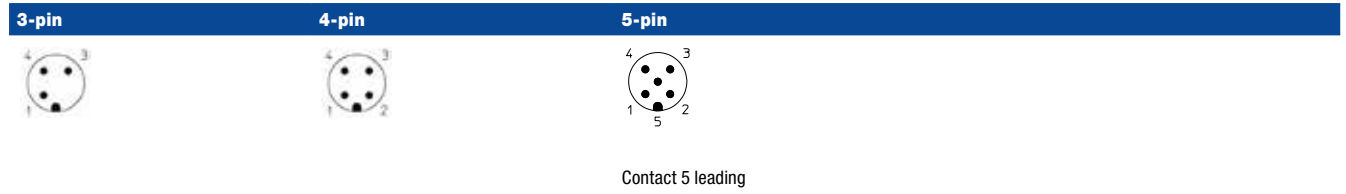
Technical Information

Product Description		
Order Designation	RSFM	RSF
		
Description	Receptacle connector, M12 male connectors, FIXCON-compatible, for front mounting, solder terminals, M16 x 1.5 screw coupling at mounting side RSF 3/12 and RSF 4/12: M12 screw coupling at mounting side	Receptacle connector, M12 male connectors, FIXCON-compatible, for front mounting, solder terminals, PG 9 screw coupling at mounting side
Note	Mounting using RSKFM 16	–
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C	-25 °C to +90 °C
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

















*a = O-ring supplied loose

*b = Important note: To ensure the mechanical stability and leak-tightness, the conductor terminal area must be potted after the cable is assembled.

Pin Assignment





Order Information

Order No.	Order Designation	No. of Pins	Characteristics
26478	RSFM 3	3	UL  
25023	RSFM 4	4	UL  
26477	RSFM 5	5	UL  
11619	RSF 3	3	UL  
11627	RSF 4	4	UL  
11632	RSF 5	5	UL  
14252	RSF 3/12	3	UL  
14249	RSF 4/12	4	UL  

M12 Receptacle Connectors for Actuators and Sensors – Standard Male Connectors with Stranded Hook-up Wire

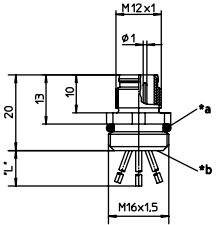
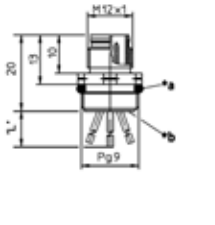
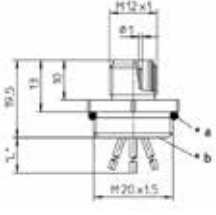
Technical Information

Product Description		
Order Designation	RSFM/0.5 M	RSF/0.5M
		
Description	Receptacle connector, M12 male connector, FIXCON-compatible, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 or M20 x 1.5 screw coupling at mounting side	Receptacle connector, M12 male connector, FIXCON-compatible, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, PG 9 screw coupling at mounting side
Note	Mounting using RSKFM 16 or RSKFM 20	Mounting using RSKF 9
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	

Technical Data	
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA, TPU (8 and 12-pin)
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated






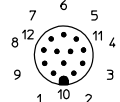
Technical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8 to 12-pin: 30 V AC/DC
Rated Current	3 to 5-pin 4 A, 8-pin 2 A, 12-pin 1.5 A
Pollution Degree	3

















































Technical Drawing	
	
	

*a = O-ring supplied loose • *b = Conductor terminal area potted • L = Standard length of cable

Pin Assignment




3-pin	4-pin	5-pin	5-pin, B-coding
 <ul style="list-style-type: none"> 1 = brown 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow <p>Contact 5 leading</p>	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow
8-pin	12-pin		
 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = shield 	 <ul style="list-style-type: none"> 1 = brown 2 = blue 3 = white 4 = green 5 = pink 6 = yellow 7 = black 8 = gray 9 = red 10 = violet 11 = gray/pink 12 = red/blue 		

Order Information

















Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
26142	RSFM 3/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
26144	RSFM 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
26146	RSFM 5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
96551	RSFM 5B/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
26151	RSFM 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	  
86154	RSFM 12/0.5 M	12	stranded hook-up wire	0.25 mm ²	  
26143	RSFM 3/20/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
26145	RSFM 4/20/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
26148	RSFM 5/20/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
26152	RSFM 8/20/0.5 M	8	stranded hook-up wire	0.25 mm ²	  
107475	RSFM 12/20/0.5 M	12	stranded hook-up wire	0.14 mm ²	  
11621	RSF 3/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
11629	RSF 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
11634	RSF 5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
14320	RSF 5B/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	  
11638	RSF 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	  

Conversion table mm² to AWG on page 20.

Pin Assignment

3-pin	4-pin	5-pin
 <ul style="list-style-type: none"> 1 = brown 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = yellow 2 = brown 3 = white 4 = green 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow



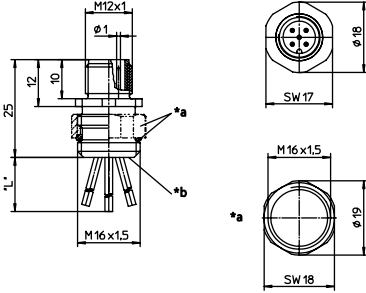
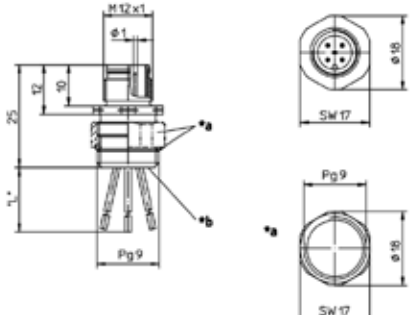
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
11620	RSF 3-13.5/0.5 M	3	stranded hook-up wire	0.34 mm ²	 
11628	RSF 4-13.5/0.5 M	4	stranded hook-up wire	0.34 mm ²	 
11633	RSF 5-13.5/0.5 M	5	stranded hook-up wire	4 x 0.34/1 x 0.50 mm ²	 
2582	RSF 3-1/2-14/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
2261	RSF 4-1/2-14/1 F	4	stranded hook-up wire	0.34 mm ²	  
30420	RSF 4/12/0.5 M	4	stranded hook-up wire	0.34 mm ²	 
934637371	RSFF 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	 

Conversion table mm² to AWG on page 20.




M12 Receptacle Connectors for Actuators and Sensors – Male Connectors with Stranded Hook-up Wire



Technical Information

Product Description		
Order Designation	RSFPM/0.5M	RSFP/0.5 M
		
Description	Receptacle connector, M12 male connector, FIXCON-compatible, for front mounting, adjustable, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side	Receptacle connector, M12 male connector, for front mounting, adjustable, assembled with stranded hook-up wire, conductor terminal area potted, PG 9 screw coupling at mounting side, B-coding
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PA, TPU (RSFP 8/0.5M)	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3 to 4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	3 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		




























*a = Adjusting nut and O-ring supplied loose • *b = Conductor terminal area potted • L = Standard length of cable

Pin Assignment

3-pin	4-pin	5-pin
 <ul style="list-style-type: none"> 1 = brown 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow <p>Contact 5 leading</p>






5-pin, B-coding	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = green 3 = blue 4 = red 5 = green/yellow <p>Contact 5 leading</p>	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red

Order Information



















Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
26153	RSFPM 3/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
30616	RSFPM 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
26155	RSFPM 5/0.5 M	5	stranded hook-up wire	1 x 0.50/4 x 0.34 mm ²	  
26157	RSFPM 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	  
11639	RSFP 3/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
11640	RSFP 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
11641	RSFP 5/0.5 M	5	stranded hook-up wire	1 x 0.50/4 x 0.34 mm ²	  
14321	RSFP 5B/0.5 M	5	stranded hook-up wire	1 x 0.50/4 x 0.34 mm ²	  
17219	RSFP 8/0.5 M	8	stranded hook-up wire	0.25 mm ²	  

Conversion table mm² to AWG on page 20.

Pin Assignment

3-pin		4-pin		5-pin		
	1 = brown 2 = n.c. 3 = blue 4 = black		1 = brown 2 = white 3 = blue 4 = black		1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow	
8-pin		12-pin				
	1 = white 2 = brown 3 = green 4 = yellow	5 = gray 6 = pink 7 = blue 8 = red		1 = brown 2 = blue 3 = white 4 = green	5 = pink 6 = yellow 7 = black 8 = gray	9 = red 10 = violet 11 = gray/pink 12 = red/blue


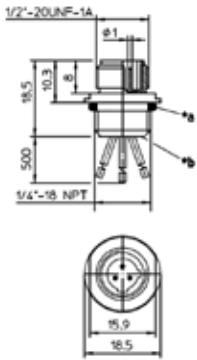
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
934536001	EM12H4AFIX AU	4	stranded hook-up wire	0.34 mm ²	 
934536201	EM12H5AFIX AU	5	stranded hook-up wire	0.34 mm ²	 
2496	RSH 3/0.5 M	3	stranded hook-up wire	0.34 mm ²	  
61488	RSH 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
73852	RSH 5/0.5 M	5	stranded hook-up wire	0.34 mm ²	  
90245	RSH 8/0.5 M	8	stranded hook-up wire	1 x 0.50/4 x 0.34 mm ² /0.25 mm ²	  
3720	RSH 12/0.5 M	12	stranded hook-up wire	0.14 mm ²	 

Conversion table mm² to AWG on page 20.




Receptacle 1/2" UNF Connectors for Actuators and Sensors – Male Connectors

Technical Information










Product Description	
Order Designation	RSF ...U
	
Description	Receptacle connector, 1/2" UNF male connector, straight, C- (or U-)coding
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	similar to IEC 61076-2-101
Approvals	UL
Technical Data	
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA
Contact Material	CuZn
Surface Finish	Nickel-plated and gold-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3 and 4-pin 230 V AC/DC, 5-pin 50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

*a = O-ring • *b = Terminal area potted

Pin Assignment

3-pin, U-coding	4-pin, U-coding	5-pin, U-coding
 <ul style="list-style-type: none"> 1 = green 2 = red/black 3 = red/white 	 <ul style="list-style-type: none"> 1 = red/black 2 = red/white 3 = red 4 = green 	 <ul style="list-style-type: none"> 1 = red/white 2 = red 3 = green 4 = red/yellow 5 = red/black




Order Information

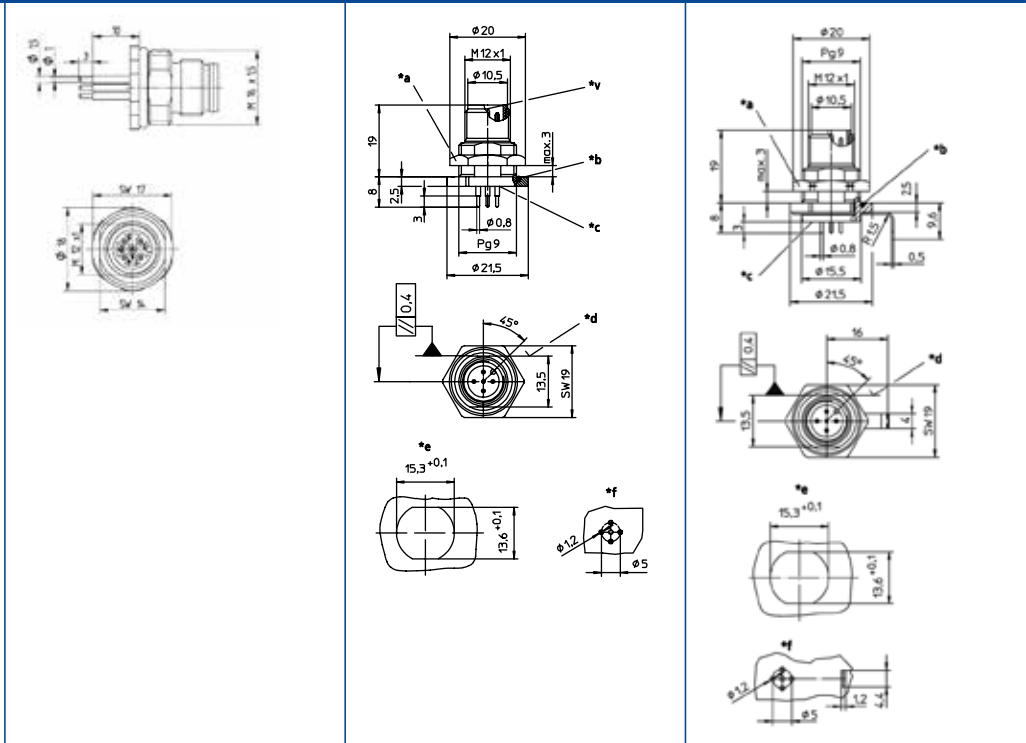
Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Range	Characteristics
11626	RSF 3U/0.5 M	3	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	  
109638	RSF 4U/1 F	4	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	  
11637	RSF 5U/0.5 M	5	screw	max. 0.75 mm ²	Ø 3.0 to 6.5 mm (AF 15)	  

Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors for Actuators and Sensors – Male Connectors with Printed Circuit Board Pins

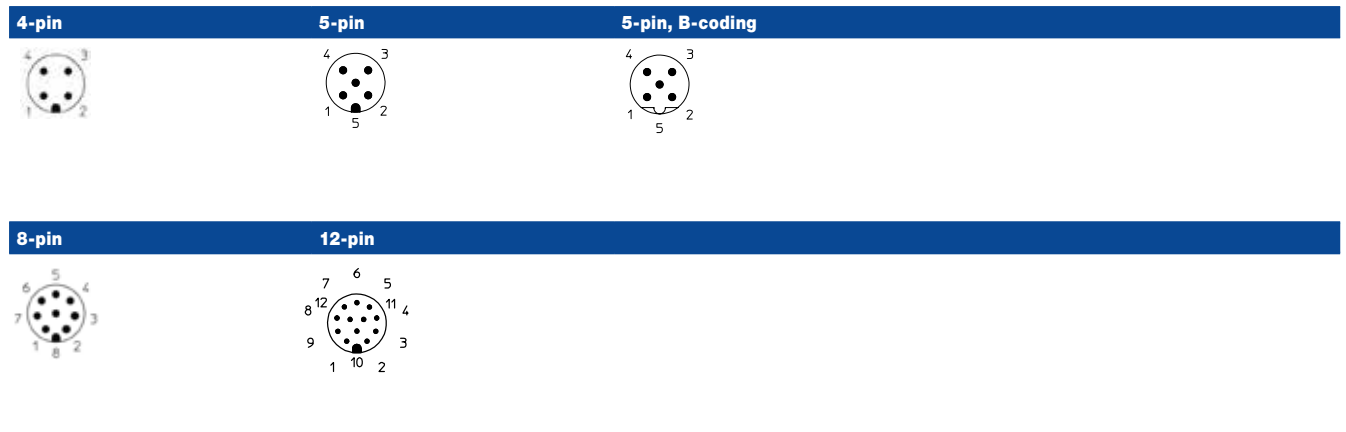
Technical Information

Product Description			
Order Designation	EM12HL...	RSHL	RSHLS
			
Description	Receptacle Connectors, M12 male connector for rear panel mounting, PCB contacts, M16 x 1.5 screw coupling at mounting side, with O-ring	Receptacle Connectors, M12 male connector for rear panel mounting, PCB contacts, PG 9 screw coupling at mounting side, with O-ring	Receptacle Connectors, M12 male connector for rear panel mounting, with shield sheet, PCB contacts, PG 9 screw coupling at mounting side, with O-ring
Note	Mounting nut M16 x 1.5	Mounting using RSKF 9	Mounting using RSKF 9
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	–	UL	–
Technical Data			
Ambient Temperature	-25 °C to +90 °C		-25 °C to +80 °C
Housing Material/Grip	CuZn, nickel-plated		
Contact Holder Material	PA, 12-pin: TPU		
Contact Material/Surface Finish	CuZn, gold-plated		
Mechanical Data			
Degree of Protection	IP67 (only when mated to associated counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8 to 12-pin: 30 V AC/DC		
Rated Current	4 to 5-pin 4 A, 8-pin 2 A, 12-pin 1.5 A		
Pollution Degree	3		
Technical Drawing			


































*a = Nut • *b = O-ring • *c = Conductor terminal area potted • *d = Anti-twist protection
 *e = Installation hole for anti-twist protection • *f = Drill pattern in printed circuit board • *v = Middle contact leading

Pin Assignment



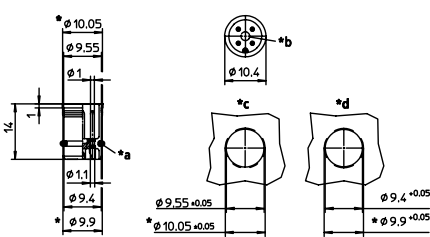
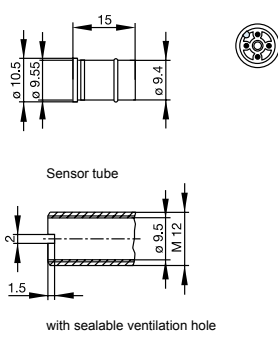


Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Characteristics
934536002	EM12HL4AFIX AU	4	PCB solder pin	 
934536202	EM12HL5AFIX AU	5	PCB solder pin	 
56332	RSHL 4/S 5.5	4	PCB solder pin	  
56333	RSHL 5/S 5.5	5	PCB solder pin	  
56346	RSHL 5B/S 5.5	5	PCB solder pin	  
62136	RSHL 8/S 5.5	8	PCB solder pin	  
107209	RSHL 12/S 5.5	12	PCB solder pin	  
104094	RSHLS 4/S 5.5	4	PCB solder pin	  
104095	RSHLS 5/S 5.5	5	PCB solder pin	  
104097	RSHLS 8/S 5.5	8	PCB solder pin	  
104098	RSHLS 12/S 5.5	12	PCB solder pin	  





M12 Receptacle Connectors for Actuators and Sensors – Male Connectors for Sensors

Technical Information




































Product Description		
Order Designation	RSE RSE0	ELST 400 RD/12
		
Description	Receptacle connector, M12 male connector for sensors, press-in tube mounting, with short terminal contacts, without anti-twist protection, A-coding, with/without ventilation hole, with O-ring RSE... L: with ventilation hole \varnothing 2.0 mm RSE0: for M12 initiators, pin 5 not leading RSE 8/0.5 M: with stranded hook-up wire	Receptacle connector, M12 male connector for sensors, press-in tube mounting, without anti-twist protection, A-coding, with O-ring, with lockable ventilation hole ELST 400... V: with anti-twist protection
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +85 °C	-25 °C to +90 °C
Housing Material/Grip		–
Contact Holder Material		PA
Contact Material/Surface Finish	CuZn, gold-plated	CuZn/Sn or CuZn/Au
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	$\leq 10 \text{ m}\Omega$	
Operating Voltage	3 to 4-pin: 150 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring supplied loose • *b = Ventilation hole • *c = Installation hole with O-ring • *d = Installation hole without O-ring

Pin Assignment

3-pin, A-coding	4-pin, A-coding	5-pin, A-coding	8-pin, A-coding
			



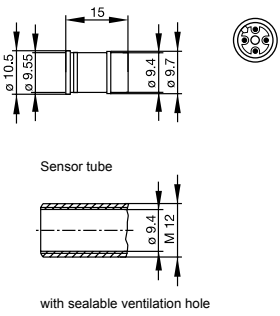
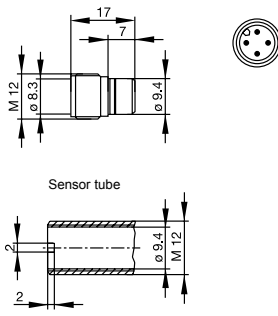
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
14509	RSE 3	3	solder terminal	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	  
11609	RSE 4	4	solder terminal	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	  
11610	RSE 4 L	4	solder terminal	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	  
26962	RSE 4 L Transparent	4	solder terminal	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	  
11613	RSE 5	5	solder terminal	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	  
46871	RSE0 5	5	solder terminal	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	  
11614	RSE 5 L	5	solder terminal	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	  
14210	RSE 8/0.5 M	8	stranded hook-up wire	solid max. 0.75 mm ² , stranded conductor max. 0.50 mm ²	 
932559306	ELST 400 RD/12 093 AU	4	solder terminal	max. 0.50 mm ²	  
932559406	ELST 400 RD/12 093 SN	4	solder terminal	max. 0.50 mm ²	  
933442306	ELST 400 RD/12 V AU	4	solder terminal	max. 0.50 mm ²	  
933442406	ELST 400 RD/12 V SN	4	solder terminal	max. 0.50 mm ²	  

Conversion table mm² to AWG on page 20.

























M12 Receptacle Connectors for Actuators and Sensors – Male Connectors for Sensors

Technical Information

Product Description		
Order Designation	ELST 400(L)/12	ELST 412
		
Description	Receptacle connector, M12 male connector for sensors, press-in tube mounting, A-coding, with sealing ribs, with and without ventilation hole ELST 400L....: with ventilation hole	Receptacle connector, M12 male connector for sensors (with threading), press-in tube mounting, A-coding, with O-ring
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	-	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn/Au	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	IP68 (24 h, 1 m; only when mated to associated counterparts)
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	4-pin: 150 V AC/DC, 5-pin: 50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
	 <p>Sensor tube with sealable ventilation hole</p>	 <p>Sensor tube</p>

*a = O-ring supplied loose • *b = Ventilation hole • *c = Installation hole with O-ring • *d = Installation hole without O-ring




Pin Assignment**4-pin, A-coding****5-pin, A-coding****Order Information**

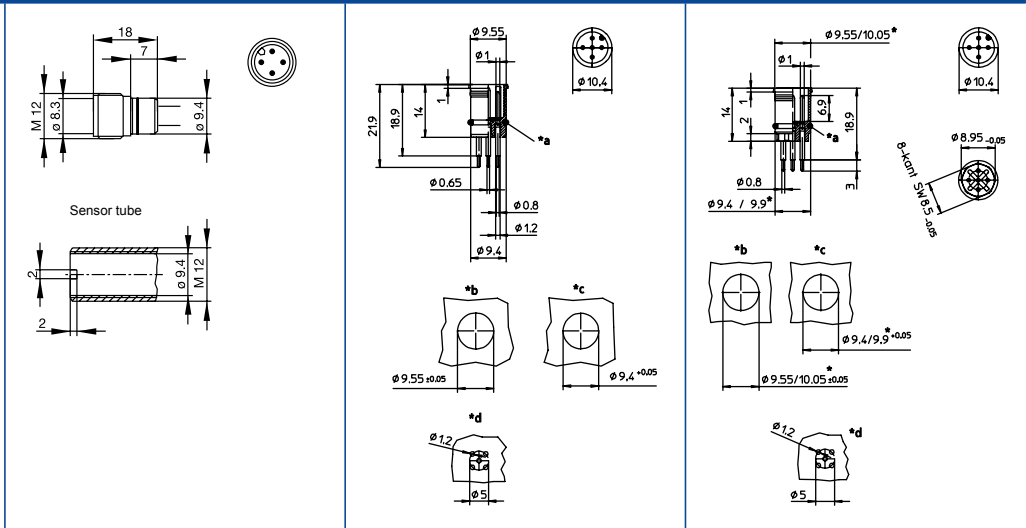
Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
932440106	ELST 400/12 093 AU	4	solder terminal	max. 0.50 mm ²	  
932440206	ELST 400/12 093 SN	4	solder terminal	max. 0.50 mm ²	  
934267106	ELST 500/12 093 AU	5	solder terminal	max. 0.50 mm ²	  
934267206	ELST 500/12 093 SN	5	solder terminal	max. 0.50 mm ²	  
932416106	ELST 400L/12 093 AU	4	solder terminal	max. 0.50 mm ²	  
932416206	ELST 400L/12 093 SN	4	solder terminal	max. 0.50 mm ²	  
931902106	ELST 412 AU GRAU (gray)	4	solder terminal	max. 0.50 mm ²	  
931902206	ELST 412 SN GRAU (gray)	4	solder terminal	max. 0.50 mm ²	  

Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors for Actuators and Sensors – Male Connectors for Sensors

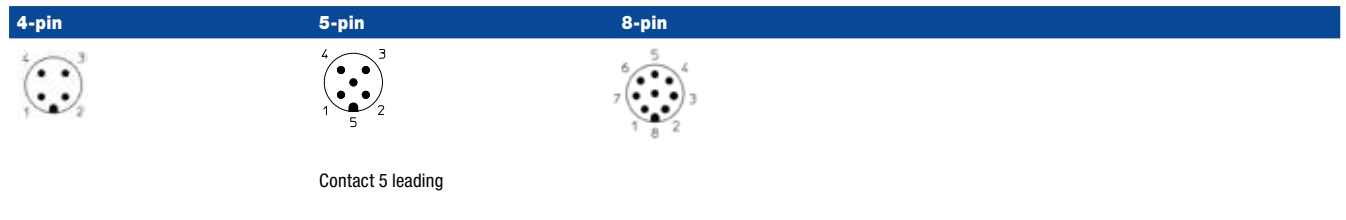
Technical Information

Product Description			
Order Designation	ELST 412 LED	RSEL	RSELP
			
Description	Receptacle connector, M12 male connector for sensors (with threading), PCB contacts, press-in tube mounting, fitted with LED (red), O-ring ELST...YE: yellow LED	Receptacle connector, M12 male connector for sensors, press-in tube mounting, with long terminal contacts, for printed circuit board mounting, without anti-twist protection, A-coding, without ventilation hole	Receptacle connector, M12 male connector for sensors, press-in tube mounting, with long terminal contacts, for printed circuit board mounting, with anti-twist protection (octagonal shape), A-coding, without ventilation hole
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	UL		-
Technical Data			
Ambient Temperature	-25 °C to +90 °C		-25 °C to +80 °C
Housing Material/Grip	-		
Contact Holder Material	PA		
Contact Material/Surface Finish	CuZn/Sn or Au	CuZn, nickel underlay and gold-plated	
Mechanical Data			
Degree of Protection	IP68 (only when locked and mated to associated counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	24 V DC	4-pin: 150 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	4 A (LED max. 10 mA)	4 to 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3		
Technical Drawing			




























*a = O-ring supplied loose • *b = Installation hole with O-ring • *c = Installation hole without O-ring • *d = Drill pattern in printed circuit board

Pin Assignment




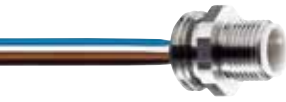
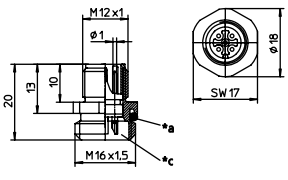
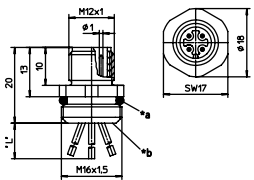
Bestellinformation

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
932256112	ELST 412 LED AU	4	solder terminal	max. 0.50 mm ²	UL   
932256212	ELST 412 LED SN	4	solder terminal	max. 0.50 mm ²	UL   
933363112	ELST 412 LED YE AU	4	solder terminal	max. 0.50 mm ²	UL   
933363212	ELST 412 LED YE SN	4	solder terminal	max. 0.50 mm ²	UL   
30548	RSEL 4	4	solder terminal	max. 0.50 mm ²	UL   
30549	RSEL 5	5	solder terminal	max. 0.50 mm ²	UL   
30550	RSEL 8	8	solder terminal	max. 0.50 mm ²	UL   
934636458	RSELP 4	4	solder terminal	max. 0.50 mm ²	 
71089	RSELP 5	5	solder terminal	max. 0.50 mm ²	 

Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors for Actuators and Sensors – Male Connectors with Printed Circuit Board Pins or Stranded Hook-up Wire for Food & Beverage

Technical Information




Product Description		
Order Designation	PRFSM	PRFSM .../0.5 M
		
Description	Receptacle connector, M12 male connector, for front mounting, stainless steel housing, solder terminals, conductor terminal area not potted, M16 x 1.5 screw coupling at mounting side	Receptacle connector, M12 male connector, for front mounting, stainless steel housing, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side
Note	Mounting using RSKFM 16. Especially suitable for use in the food processing equipment.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-10	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	Stainless steel	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, gold over nickel plating	
Mechanical Data		
Degree of Protection	IP67, IP69K (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	4-pin: 230 V AC/DC, 5-pin: 50 V AC/60 V DC, 8-pin: 30 V AC/DC	
Rated Current	4 and 5-pin 4 A, 8-pin 2 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring supplied loose
















*b = Important note: To ensure the mechanical stability and leak-tightness, the conductor terminal area must be potted after the cable is assembled.

*c = Conductor terminal area potted

Pin Assignment

4-pin	5-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = green/yellow 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red
Contact 5 leading		



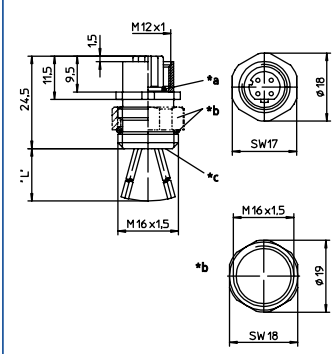
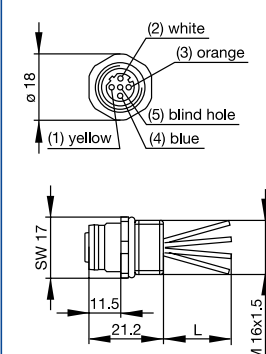
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
46477	PRSFM 4	4	PCB solder pin	–	  
46002	PRSFM 5	5	PCB solder pin	–	  
45703	PRSFM 4/0.5 M	4	stranded hook-up wire	0.34 mm ²	  
45704	PRSFM 5/0.5 M	5	stranded hook-up wire	1 x 0.50/4 x 0.34 mm ²	  
47297	PRSFM 8/0.5 M	8	stranded hook-up wire	0.22 mm ²	  

Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors – Data – Industrial Ethernet – Female Connectors

Technical Information








Product Description		
Order Designation	0986 EFC... A	EF12M OCTOPUS
		
Description	Industrial Ethernet receptacle connector, M12 female connector, for front mounting, 4-pin, D-coding, assembled with stranded hook-up wire, conductor AWG 22, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side 0986 EFC 151 A: adjustable 0986 EFC 153 A: not adjustable	Industrial Ethernet receptacle connector, M12 female connector, for front mounting, 4-pin, D-coding, adjustable, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side
Note	Adjusting nut and O-ring supplied loose.	O-ring supplied loose; mounting nut ELST-M M16 must be ordered separately.
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	–	UL
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	-25 °C to +90 °C, mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	TPU	PA
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65, IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	≤ 10 mΩ
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring supplied loose • *b = Adjusting nut and O-ring supplied loose • *c = Conductor terminal area potted

Pin Assignment**4-pin, D-coding**



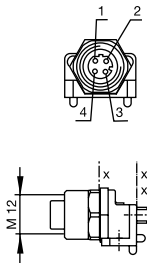
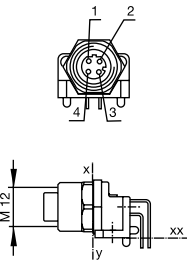
1 = yellow
 2 = white
 3 = orange
 4 = blue

Order Information







Order No.	Order Designation	No. of Pins	Characteristics
68836	0986 EFC 151 A	4	 
57761	0986 EFC 153 A	4	 
934450021	EF12M OCTOPUS	4	  

M12 Receptacle Connectors – Data – Industrial Ethernet – Female Connectors

Technical Information




Product Description		
Order Designation	EF12L OCTOPUS	EF12LW OCTOPUS
		
Description	Industrial Ethernet receptacle connector, M12 female connector, for front and printed circuit board mounting, 4-pin, D-coding, PCB contacts straight	Industrial Ethernet receptacle connector, M12 female connector, for front and printed circuit board mounting, 4-pin, D-coding, PCB contacts angled
Note	Adjusting nut and O-ring supplied loose.	O-ring supplied loose; mounting nut ELST-M M16 must be ordered separately.
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Characteristics
934451021	EF12L OCTOPUS	4	PCB solder pin	  
934451521	EF12LW OCTOPUS	4	PCB solder pin	  

M12 Receptacle Connectors – Data – Industrial Ethernet – Female Connectors

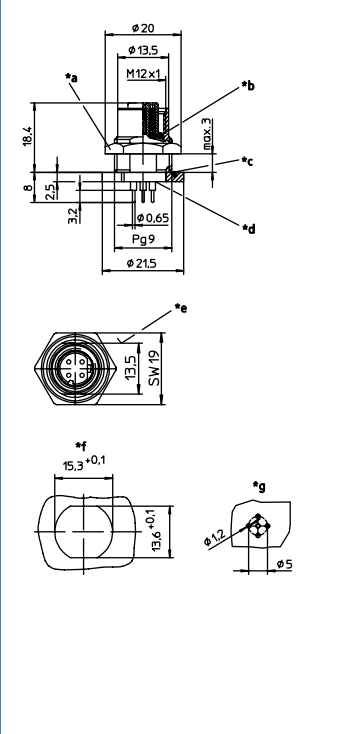
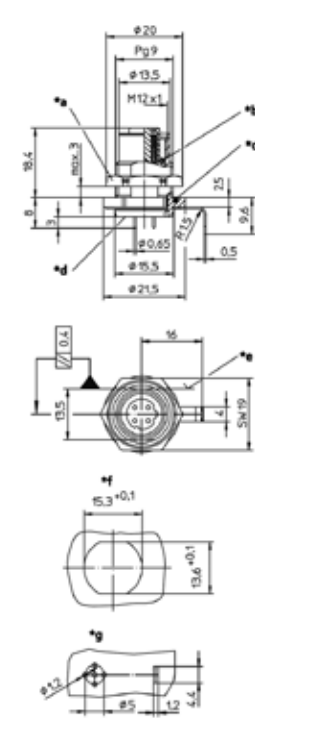
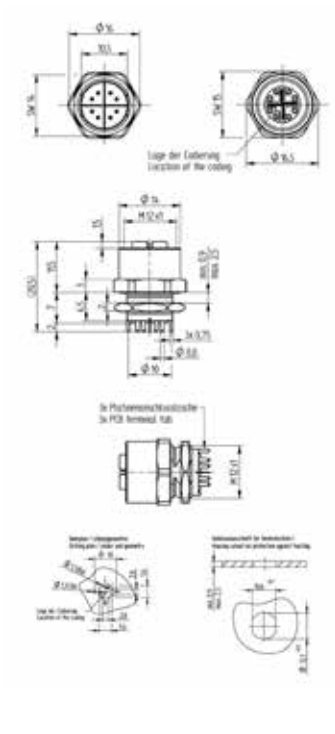
Technical Information

Product Description			
Order Designation	0986 EFC 152	0986 EFC 158	0986 EFC 651 (HAWA)
			
Description	Industrial Ethernet receptacle connector, M12 female connector for rear panel mounting, 4-pin, D-coding, PCB contacts, PG 9 screw coupling at mounting side	Industrial Ethernet receptacle connector, M12 female connector for rear panel mounting, with shield sheet, 4-pin, D-coding, PCB contacts, PG 9 screw coupling at mounting side	Industrial Ethernet receptacle connector, M12 female connector for front mounting, 8-pin, X-coding, PCB contacts, PG 9 screw coupling at mounting side
Note	Mounting using RSKF 9	–	–
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		DIN EN 61076-2-109
Approvals	–		

Technical Data		
Ambient Temperature	-30 °C to +80 °C	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	TPU	PA
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	

Mechanical Data	
Degree of Protection	IP67 (only when mated to associated counterparts)

Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	48 V AC/DC
Rated Current	4 A	0.5 A
Pollution Degree	3	3/2




Technical Drawing		
		

*a = Nut • *b = O-ring • *c = O-ring • *d = Conductor terminal area potted • *e = Anti-twist protection • *f = Installation hole for anti-twist protection
 • *g = Drill pattern in printed circuit board

Pin Assignment



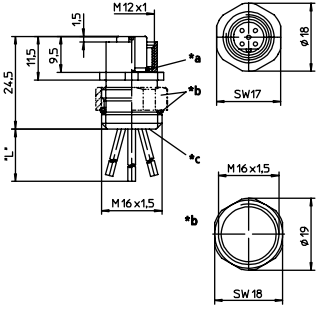
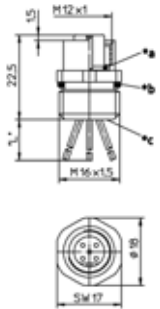
4-pin, D-coding	8-pin, X-coding
 <p>1 = yellow 2 = white 3 = orange 4 = blue</p>	

Order Information

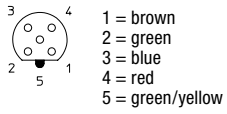
Order No.	Order Designation	No. of Pins	Characteristics
64161	0986 EFC 152	4	
104090	0986 EFC 158	4	
934637031	0986 EFC 651	8	




M12 Receptacle Connectors – Data (PROFIBUS®) – Female Connectors

Technical Information

Product Description		
Order Designation	0976 PFC 151	0976 PFC 157
		
Description	Receptacle connector, for front mounting, assembled with stranded hook-up wire (0.5 m), conductor terminal area potted, with adjusting nut, 5-pin, B-coding: especially suitable for PROFIBUS, M12 female connector, M16 x 1.5 screw coupling at mounting side	PROFIBUS receptacle connector, for front mounting, M12 female connector, stainless steel, assembled with stranded hook-up wire (0.5 m), conductor terminal area potted, 5-pin, B-coding, M16 x 1.5 screw coupling at mounting side
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	–
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	CuZn, nickel-plated	Stainless steel
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

0976 PFC 151: *a = O-ring • *b = Adjusting nut and O-ring supplied loose • *c = Conductor terminal area potted • L = Standard length of stranded hook-up wire
 0976 PFC 157: *a = O-ring • *b = O-ring supplied loose • *c = Conductor terminal area potted • L = Standard length of stranded hook-up wire 0.5 m

Pin Assignment**5-pin, B-coding****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
91458	0976 PFC 157	5	stranded wire	0.50 mm ²	
18317	0976 PFC 151	5	stranded wire	0.50 mm ²	 








Conversion table mm² to AWG on page 20.

Pin Assignment

5-pin, B-coding



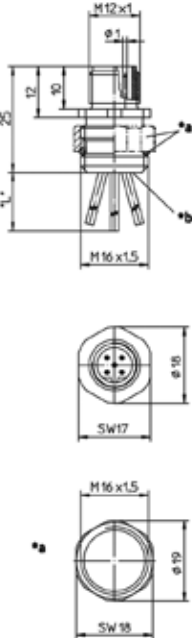
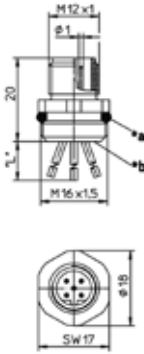


Order Information

Order No.	Order Designation	No. of Pins	Characteristics
25005	0976 PFC 152	5	UL  
103429	0976 PFC 159	5	 
104088	0976 PFC 160	5	  

M12 Receptacle Connectors – Data (PROFIBUS®) – Male Connectors

Technical Information

Product Description		
Order Designation	0976 PMC 151	0976 PMC 157
		
Description	PROFIBUS receptacle connector, for front mounting, M12 male connector, assembled with stranded hook-up wire (0.5 m), conductor terminal area potted, with adjusting nut, 5-pin, B-coding, M16 x 1.5 screw coupling at mounting side	PROFIBUS receptacle connector, for front mounting, M12 male connector, stainless steel design, assembled with stranded hook-up wire (0.5 m), conductor terminal area potted, with adjusting nut, 5-pin, B-coding, M16 x 1.5 screw coupling at mounting side
Note	Especially suitable for use in the food & beverage industry.	–
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	–
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	CuZn, nickel-plated	Stainless steel
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		






0976 PMC 151: *a = Adjusting nut and O-ring supplied loose • *b = Conductor terminal area potted • L = Standard length of stranded hook-up wire
 0976 PMC 157: *a = O-ring supplied loose • *b = Conductor terminal area potted • L = 0.5 m

Pin Assignment**5-pin, B-coding**

- 1 = brown
- 2 = green
- 3 = blue
- 4 = red
- 5 = green/yellow

Contact 5 leading



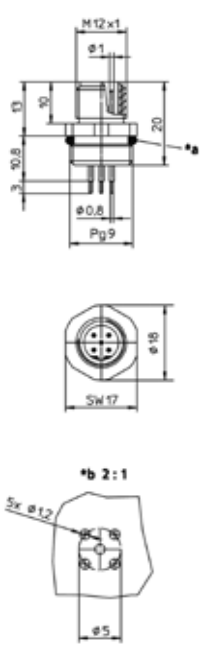
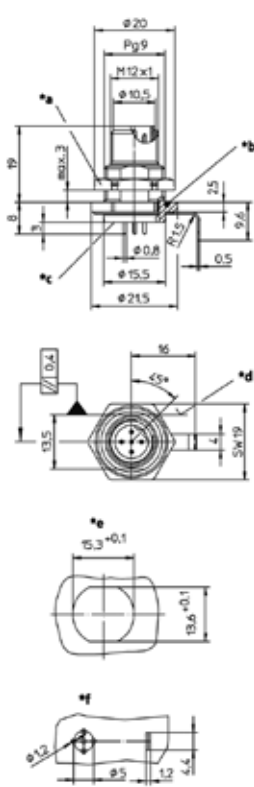
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Characteristics
18315	0976 PMC 151	5	1 x 0.50/4 x 0.34 mm ²	  
91459	0976 PMC 157	5	1 x 0.50/4 x 0.34 mm ²	 

Conversion table mm² to AWG on page 20.

M12 Receptacle Connectors – Data (PROFIBUS®) – Male Connectors

Technical Information

Product Description		
Order Designation	0976 PMC 152	0976 PMC 160
		
Description	PROFIBUS receptacle connector, for front mounting, M12 male connector, 5-pin, B-coding, PCB contacts, PG 9 screw coupling at mounting side	PROFIBUS receptacle connector, for rear panel mounting, M12 male connector, with shield sheet, 5-pin, B-coding, PCB contacts, PG 9 screw coupling at mounting side
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-10	
Approvals	UL	–
Technical Data		
Ambient Temperature	-25 °C to +90 °C	-30 °C to +80 °C
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

0976 PMC 152: *a = O-ring supplied loose • *b = Conductor terminal area potted • L = 0.5 m
 0976 PMC 160: *a = nut • *b = O-ring • *c = Terminal area potted • *d = Anti-twist protection • *e = Installation hole for anti-twist protection • *f = Drill pattern in printed circuit board

Pin Assignment**5-pin, B-coding**

- 1 = brown
- 2 = green
- 3 = blue
- 4 = red
- 5 = green/yellow



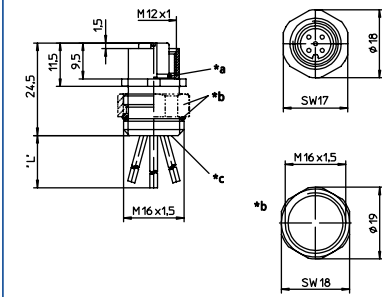
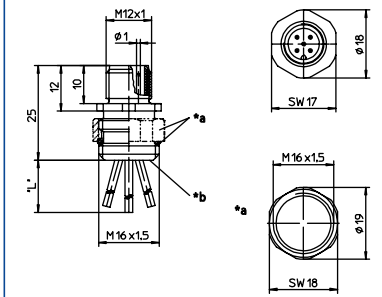
Contact 5 leading

Order Information

Order No.	Order Designation	No. of Pins	Characteristics
25006	0976 PMC 152	5	  
104089	0976 PMC 160	5	  

M12 Receptacle Connectors – Data (CANopen®/DeviceNet™) – Female/Male Connectors

Technical Information

Product Description		
Order Designation	0936 DFC 351	0936 DMC 351
		
Description	Receptacle connector, M12 female connector, for front mounting, 5-pin, adjustable, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side	Receptacle connector, M12 male connector, for front mounting, 5-pin, adjustable, assembled with stranded hook-up wire, conductor terminal area potted, M16 x 1.5 screw coupling at mounting side
Note	Especially suitable for DeviceNet™ and CANopen®.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	UL	
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuSn, nickel underlay and gold-plated	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated to associated counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

0936 DFC 351: *a = O-ring • *b = Adjusting nut and O-ring supplied loose • *c = Conductor terminal area potted
 0936 DMC 351: *a = Adjusting nut and O-ring supplied loose • *b = Conductor terminal area potted

0936 DFC 351 Pin Assignment**5-pin**







- 1 = green
- 2 = red
- 3 = black
- 4 = white
- 5 = blue

0936 DMC 351 Pin Assignment**5-pin**

- 1 = green
- 2 = red
- 3 = black
- 4 = white
- 5 = blue

Contact 5 leading

Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Characteristics
26433	0936 DFC 351	5	0.22 mm ²	UL   
26432	0936 DMC 351	5	0.22 mm ²	UL   

Conversion table mm² to AWG on page 20.



M8 Circular Connectors



Be certain. Belden.

The Little Sensor Pro – Slim and Powerful

The space-saving M8 circular connectors as per IEC 61076-2-104 connect sensors and actuators with an overmolded snap-in or screw coupling. The universally, field attachable M8 connectors can be quickly connected to the cable by soldering, screw terminal or cable piercing contacts. Numerous receptacle connectors for front or rear panel mounting, with stranded hook-up wire or PCB contacts, as well as sensor connectors complete the comprehensive M8 range from Lumberg Automation.

Product Features

- Overmolded M8 actuator/sensor connectors offer translucent design and optimized contact holders, a metal screw threading with special contours for optimal connection and anti-twist protection, thus significantly increasing the potential extraction forces

- The wash-down series higher demands on functional safety end endurance provides IP68 and IP69K protection, UL and ECOLAB certification at operating temperatures of -40 °C to +105 °C
- Protected against dust and moisture and resistant to many oils and chemical substances, the standard variants meet the criteria for IP65 and IP67 protection
- 3, 4, 5 and 8-pin variants

Benefits

- Flexible and robust designs provide reliable solutions with a long service life and high system stability with maximum availability
- Space saving through compact dimensions: slim yet easy to handle M8 sensor connectors support the trend of miniaturization and go perfectly with compact M8 distribution boxes with minimal port-to-port distance

- Internationally standardized M8 connector technology allows for fast commissioning, and the clearly laid out installation guarantees quick diagnosis in the event of a fault, increasing productivity
- Cost savings through quick and easy installation




Applications

Maximum flexibility and versatility for all compact sensor and actuator applications in industrial automation technology, e.g., for use with:

- Inductive/capacitive proximity switches
- Increasingly smaller pneumatic actuators

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Female, Standard

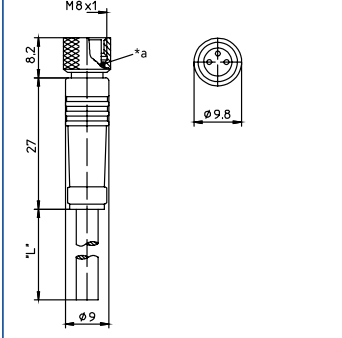
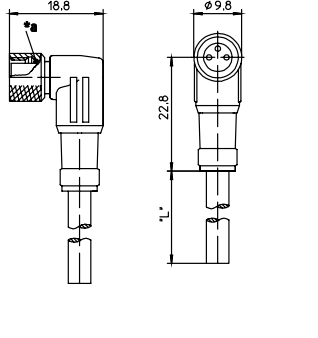
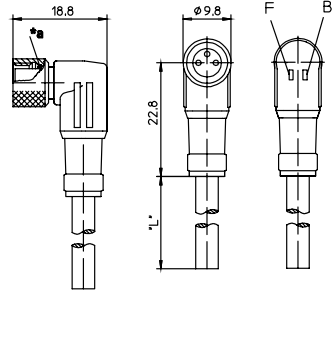
Technical Information

Product Description			
Order Designation	RKMV	RKMVV	RKMVV/LED
			
Description	Actuator/sensor single ended cordset, M8 female connector, straight, with self-locking screw coupling and overmolded cable, 3, 4, and 8-pin	Actuator/sensor single ended cordset, M8 female connector, angled, with self-locking screw coupling and overmolded cable, 3 and 4-pin	Actuator/sensor single ended cordset, M8 female connector, angled, with self-locking screw coupling and overmolded cable, LED operation and function indicators (PNP make contact), 3-pin
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104		
Approvals	UL		

Technical Data	
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA/TPU
Contact Material/Surface Finish	CuSn, gold over nickel plating
Screw Coupling Material	CuZn, nickel-plated




Mechanical Data	
Degree of Protection	IP65/IP67/IP69K (only when mated with Hirschmann/Lumberg counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC 24 V DC
Rated Current	4 A
Pollution Degree	3

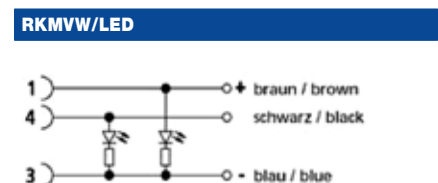
Technical Drawing		
		

*a = O-ring • L = Standard length of cable • F = Yellow operation indicator • B = Green operation indicator
















































































































































































































Pin Assignment

3-pin	4-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red

Circuit Diagram





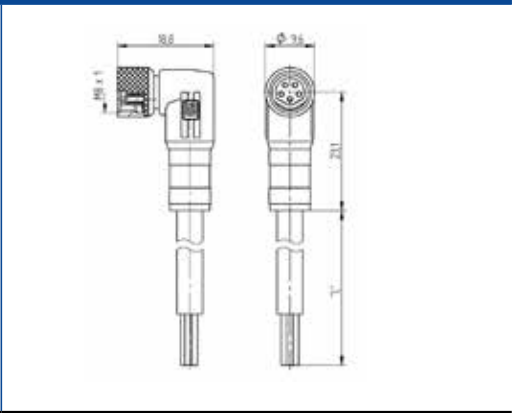
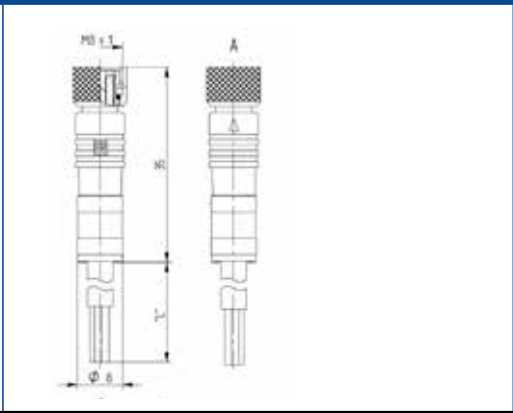
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11294	RKMV 3-06/2 M	3	PVC, orange	 
11295	RKMV 3-06/5 M	3	PVC, orange	 
11293	RKMV 3-06/10 M	3	PVC, orange	 
17852	RKMV 3-224/2 M	3	PUR, halogen-free, black	   
12955	RKMV 3-224/5 M	3	PUR, halogen-free, black	   
43566	RKMV 3-224/10 M	3	PUR, halogen-free, black	   
45376	RKMV 3-260/2 M	3	PUR, halogen-free, orange	    
57796	RKMV 3-260/5 M	3	PUR, halogen-free, orange	    
78556	RKMV 3-260/10 M	3	PUR, halogen-free, orange	    
11300	RKMV 4-07/2 M	4	PVC, orange	 
11301	RKMV 4-07/5 M	4	PVC, orange	 
11299	RKMV 4-07/10 M	4	PVC, orange	 
28383	RKMV 4-225/2 M	4	PUR, halogen-free, black	   
18213	RKMV 4-225/5 M	4	PUR, halogen-free, black	   
18215	RKMV 4-225/10 M	4	PUR, halogen-free, black	   
54425	RKMV 4-251/2 M	4	PUR, halogen-free, orange	    
54446	RKMV 4-251/5 M	4	PUR, halogen-free, orange	    
9714	RKMV 4-251/10 M	4	PUR, halogen-free, orange	    
712	RKMV 4-500/2 M	4	PUR, halogen-free, black	      
714	RKMV 4-500/5 M	4	PUR, halogen-free, black	      
715	RKMV 4-500/10 M	4	PUR, halogen-free, black	      
91033	RKMV 8-354/2 M	8	PUR, halogen-free, black	   
96490	RKMV 8-354/5 M	8	PUR, halogen-free, black	   
96491	RKMV 8-354/10 M	8	PUR, halogen-free, black	   
11324	RKMVV 3-06/2 M	3	PVC, orange	
11325	RKMVV 3-06/5 M	3	PVC, orange	
11323	RKMVV 3-06/10 M	3	PVC, orange	
13169	RKMVV 3-224/2 M	3	PUR, halogen-free, black	   
13178	RKMVV 3-224/5 M	3	PUR, halogen-free, black	   
43590	RKMVV 3-224/10 M	3	PUR, halogen-free, black	   
45379	RKMVV 3-260/2 M	3	PUR, halogen-free, orange	      
45380	RKMVV 3-260/5 M	3	PUR, halogen-free, orange	      
58318	RKMVV 3-260/10 M	3	PUR, halogen-free, orange	      
11330	RKMVV 4-07/2 M	4	PVC, orange	
11331	RKMVV 4-07/5 M	4	PVC, orange	
11329	RKMVV 4-07/10 M	4	PVC, orange	
28382	RKMVV 4-225/2 M	4	PUR, halogen-free, black	   
27642	RKMVV 4-225/5 M	4	PUR, halogen-free, black	   
39022	RKMVV 4-225/10 M	4	PUR, halogen-free, black	   
9716	RKMVV 4-251/2 M	4	PUR, halogen-free, orange	      
10616	RKMVV 4-251/10 M	4	PUR, halogen-free, orange	      
48771	RKMVV 4-251/5 M	4	PUR, halogen-free, orange	      
752	RKMVV 4-500/2 M	4	PUR, halogen-free, black	      
753	RKMVV 4-500/5 M	4	PUR, halogen-free, black	      
754	RKMVV 4-500/10 M	4	PUR, halogen-free, black	      
11336	RKMVV/LED A 3-06/2 M	3	PVC, orange	
11337	RKMVV/LED A 3-06/5 M	3	PVC, orange	
11335	RKMVV/LED A 3-06/10 M	3	PVC, orange	
14007	RKMVV/LED A 3-224/2 M	3	PVC, orange	   
14005	RKMVV/LED A 3-224/5 M	3	PVC, orange	   
14006	RKMVV/LED A 3-224/10 M	3	PVC, orange	   

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Female

Technical Information

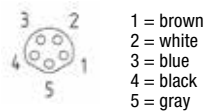
Product Description		
Order Designation	RKMV 5	RKMVW 5
		
Description	Actuator/sensor single ended cordset, M8 female connector, straight, with screw coupling and overmolded cable, 5-pin, B-coding	Actuator/sensor single ended cordset, M8 female connector, angled, with screw coupling and overmolded cable, 5-pin, B-coding
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 to +90°C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K* (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	30 V AC/DC	
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)	
Pollution Degree	3	
Technical Drawing		



























L = Standard length of cable
 *IP69K all but angled PVC versions

Pin Assignment

5-pin






Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934841001	RKMV 5-671/2 M	5	PVC, black	0.34 mm ²	
934841002	RKMV 5-671/5 M	5	PVC, black	0.34 mm ²	
934841003	RKMV 5-671/10 M	5	PVC, black	0.34 mm ²	
934841004	RKMV 5-671/15 M	5	PVC, black	0.34 mm ²	
934841005	RKMV 5-671/20 M	5	PVC, black	0.34 mm ²	
934841006	RKMV 5-671/25 M	5	PVC, black	0.34 mm ²	
934841007	RKMV 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841008	RKMV 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	
934841009	RKMV 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	
934841010	RKMV 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	
934841011	RKMV 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	
934841012	RKMV 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	
934841013	RKMV 5-507/2 M	5	PVC, black	0.25 mm ²	
934841014	RKMV 5-507/5 M	5	PVC, black	0.25 mm ²	
934841015	RKMV 5-507/10 M	5	PVC, black	0.25 mm ²	
934841016	RKMV 5-507/15 M	5	PVC, black	0.25 mm ²	
934841017	RKMV 5-507/20 M	5	PVC, black	0.25 mm ²	
934841018	RKMV 5-507/25 M	5	PVC, black	0.25 mm ²	
934841019	RKMV 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934841020	RKMV 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	
934841021	RKMV 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	
934841022	RKMV 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	
934841023	RKMV 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	
934841024	RKMV 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	
934842001	RKMWV 5-671/2 M	5	PVC, black	0.34 mm ²	
934842002	RKMWV 5-671/5 M	5	PVC, black	0.34 mm ²	
934842003	RKMWV 5-671/10 M	5	PVC, black	0.34 mm ²	
934842004	RKMWV 5-671/15 M	5	PVC, black	0.34 mm ²	
934842005	RKMWV 5-671/20 M	5	PVC, black	0.34 mm ²	
934842006	RKMWV 5-671/25 M	5	PVC, black	0.34 mm ²	
934842007	RKMWV 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934842008	RKMWV 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	
934842009	RKMWV 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	
934842010	RKMWV 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	
934842011	RKMWV 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	
934842012	RKMWV 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	
934842013	RKMWV 5-507/2 M	5	PVC, black	0.25 mm ²	
934842014	RKMWV 5-507/5 M	5	PVC, black	0.25 mm ²	
934842015	RKMWV 5-507/10 M	5	PVC, black	0.25 mm ²	
934842016	RKMWV 5-507/15 M	5	PVC, black	0.25 mm ²	
934842017	RKMWV 5-507/20 M	5	PVC, black	0.25 mm ²	
934842018	RKMWV 5-507/25 M	5	PVC, black	0.25 mm ²	
934842019	RKMWV 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934842020	RKMWV 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	
934842021	RKMWV 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	
934842022	RKMWV 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	
934842023	RKMWV 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	
934842024	RKMWV 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	

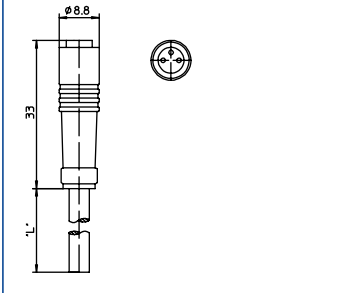
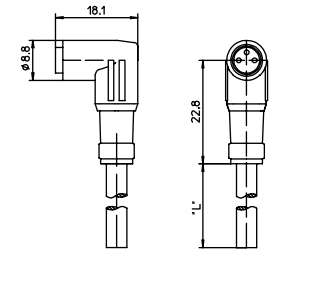
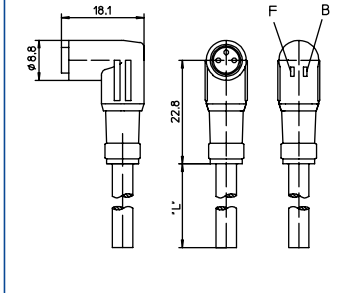
Conversion table mm² to AWG on page 20.

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Female, Standard

Technical Information



Product Description			
Order Designation	RKM	RKMW	RKMW/LED
			
Description	Actuator/sensor single-ended cordset, M8 female, straight, with snap-in coupling and overmolded cable, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 female, angled, with snap-in coupling and overmolded cable, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 female, angled, with snap-in coupling and overmolded cable, LED operation and function indicator (PNP make contact), 3-pin
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104		
Approvals	UL		

Technical Data	
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA/TPU
Contact Material/Surface Finish	CuSn, gold over nickel plating
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A
Pollution Degree	3

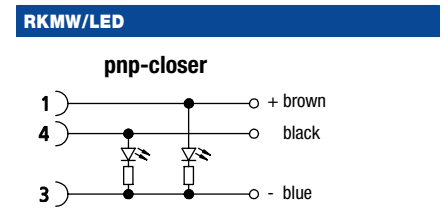
Technical Drawing		
		

L = Standard length of cable • F = Yellow operation indicator • B = Green operation indicator

Pin Assignment

3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Circuit Diagram





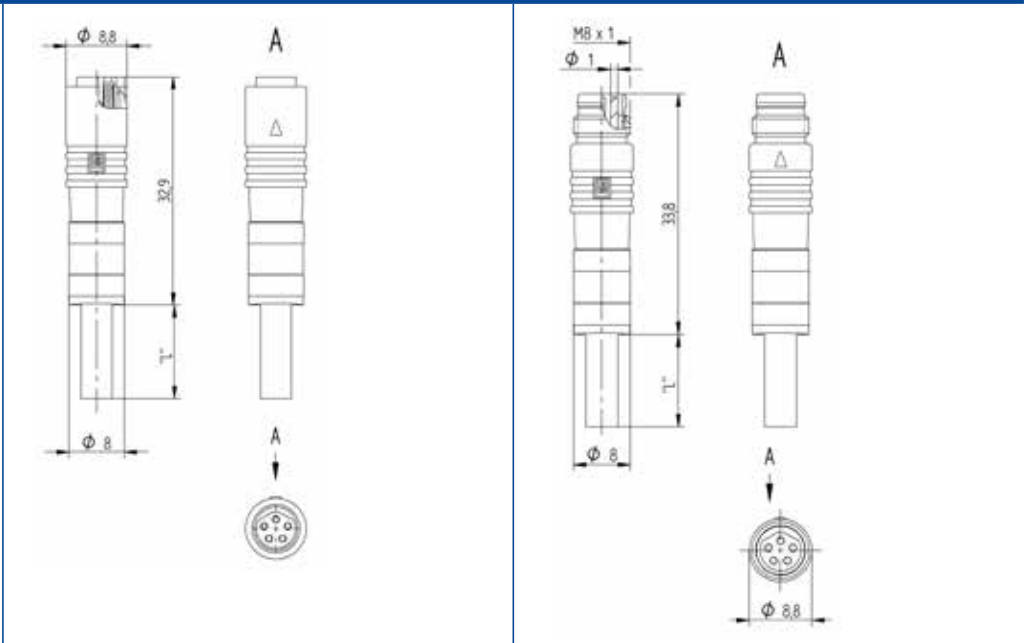
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11278	RKM 3-06/2 M	3	PVC, orange	
11279	RKM 3-06/5 M	3	PVC, orange	
11277	RKM 3-06/10 M	3	PVC, orange	
25696	RKM 3-224/2 M	3	PUR, halogen-free, black	  
38427	RKM 3-224/5 M	3	PUR, halogen-free, black	  
43554	RKM 3-224/10 M	3	PUR, halogen-free, black	  
11284	RKM 4-07/2 M	4	PVC, orange	
11285	RKM 4-07/5 M	4	PVC, orange	
11283	RKM 4-07/10 M	4	PVC, orange	
44584	RKM 4-225/2 M	4	PUR, halogen-free, black	  
44554	RKM 4-225/5 M	4	PUR, halogen-free, black	  
46227	RKM 4-225/10 M	4	PUR, halogen-free, black	  
11306	RKMW 3-06/2 M	3	PVC, orange	
11307	RKMW 3-06/5 M	3	PVC, orange	
11305	RKMW 3-06/10 M	3	PVC, orange	
43468	RKMW 3-224/10 M	3	PUR, halogen-free, black	  
43571	RKMW 3-224/2 M	3	PUR, halogen-free, black	  
43574	RKMW 3-224/5 M	3	PUR, halogen-free, black	  
11311	RKMW 4-07/10 M	4	PVC, orange	
11312	RKMW 4-07/2 M	4	PVC, orange	
11313	RKMW 4-07/5 M	4	PVC, orange	
46228	RKMW 4-225/10 M	4	PUR, halogen-free, black	  
44423	RKMW 4-225/2 M	4	PUR, halogen-free, black	  
44550	RKMW 4-225/5 M	4	PUR, halogen-free, black	  
11318	RKMW/LED A 3-06/2 M	3	PVC, orange	
11319	RKMW/LED A 3-06/5 M	3	PVC, orange	
11154	RKMW/LED A 3-06/10 M	3	PVC, orange	
40536	RKMW/LED A 3-224/2 M	3	PUR, halogen-free, black	  
43582	RKMW/LED A 3-224/5 M	3	PUR, halogen-free, black	  
43578	RKMW/LED A 3-224/10 M	3	PUR, halogen-free, black	  

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Straight Female and Male with Snap-in Coupling Nut for Actuators and Sensors

Technical Information

Product Description		
Type	RKM 5	RSM 5
		
Description	Actuator/sensor single-ended cordset, M8 female connector, straight, with snap-in coupling and overmolded cable, 5-pin, B-coding	Actuator/sensor single-ended cordset, M8 male connector, straight, with snap-in coupling and overmolded cable, 5-pin, B-coding
RoHS (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 to +90°C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	TPU (snap)/CuZn	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	30 V AC/DC	
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)	
Pollution Degree	3	
Technical Drawing		







































L = Standard length of cable

Pin Assignment

M8, female, 5-poles	M8, male, 5-poles
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray



















Order Information



















Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934871001	RKM 5-671/2 M	5	PVC, black	0.34 mm ²	
934871002	RKM 5-671/5 M	5	PVC, black	0.34 mm ²	
934871003	RKM 5-671/10 M	5	PVC, black	0.34 mm ²	
934871004	RKM 5-671/15 M	5	PVC, black	0.34 mm ²	
934871005	RKM 5-671/20 M	5	PVC, black	0.34 mm ²	
934871006	RKM 5-671/25 M	5	PVC, black	0.34 mm ²	
934871007	RKM 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871008	RKM 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871009	RKM 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871010	RKM 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871011	RKM 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871012	RKM 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	 
934871013	RKM 5-507/2 M	5	PVC, black	0.25 mm ²	
934871014	RKM 5-507/5 M	5	PVC, black	0.25 mm ²	
934871015	RKM 5-507/10 M	5	PVC, black	0.25 mm ²	
934871016	RKM 5-507/15 M	5	PVC, black	0.25 mm ²	
934871017	RKM 5-507/20 M	5	PVC, black	0.25 mm ²	
934871018	RKM 5-507/25 M	5	PVC, black	0.25 mm ²	
934871019	RKM 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871020	RKM 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871021	RKM 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871022	RKM 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871023	RKM 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	 
934871024	RKM 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	 

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Straight Female and Male with Snap-in Coupling Nut for Actuators and Sensors (continued)

Order Information


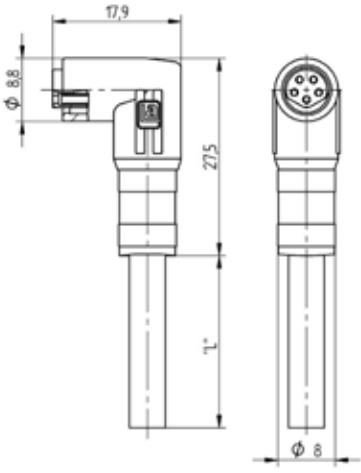
Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934876001	RSM 5-671/2 M	5	PVC, black	0.34 mm ²	 UL
934876002	RSM 5-671/5 M	5	PVC, black	0.34 mm ²	 UL
934876003	RSM 5-671/10 M	5	PVC, black	0.34 mm ²	 UL
934876004	RSM 5-671/15 M	5	PVC, black	0.34 mm ²	 UL
934876005	RSM 5-671/20 M	5	PVC, black	0.34 mm ²	 UL
934876006	RSM 5-671/25 M	5	PVC, black	0.34 mm ²	 UL
934876007	RSM 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876008	RSM 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876009	RSM 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876010	RSM 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876011	RSM 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	  UL
934876012	RSM 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	  UL

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934876013	RSM 5-507/2 M	5	PVC, black	0.25 mm ²	
934876014	RSM 5-507/5 M	5	PVC, black	0.25 mm ²	
934876015	RSM 5-507/10 M	5	PVC, black	0.25 mm ²	
934876016	RSM 5-507/15 M	5	PVC, black	0.25 mm ²	
934876017	RSM 5-507/20 M	5	PVC, black	0.25 mm ²	
934876018	RSM 5-507/25 M	5	PVC, black	0.25 mm ²	
934876019	RSM 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876020	RSM 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876021	RSM 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876022	RSM 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876023	RSM 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	 
934876024	RSM 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	 

Conversion table mm² to AWG on page 20

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Right-Angle Female with Snap-in Coupling Nut for Actuators and Sensors

Technical Information





































Product Description	
Type	RKMW 5
	
Description	Miniature angled female connector with snap joint and molded cable, 5-pin, B-coding
RoHS (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Approvals	UL
Technical Data	
Ambient Temperature	-40 to +90°C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn/Au
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)
Pollution Degree	3
Technical Drawing	
	

L = Standard length of cable
Do not connect / disconnect under load.

Pin Assignment

M8, female, 5-poles	
	1 = brown 2 = white 3 = blue 4 = black 5 = gray



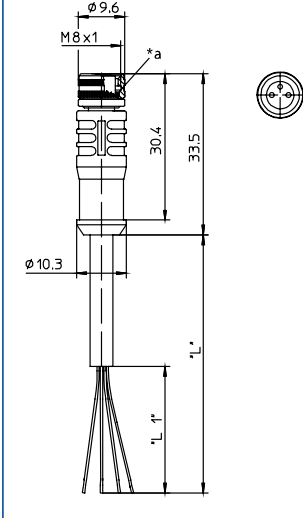
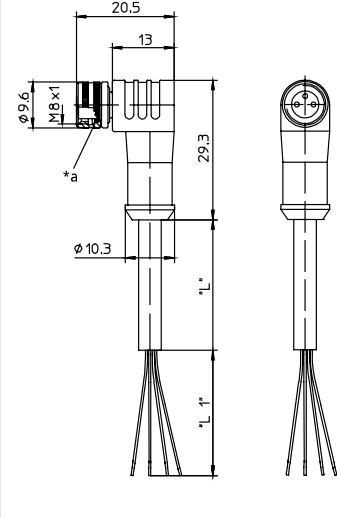
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934884001	RKMW 5-671/2 M	5	PVC, 0.34 mm ² ca. AWG 22, black color	
934884002	RKMW 5-671/5 M	5	PVC, 0.34 mm ² ca. AWG 22, black color	
934884003	RKMW 5-671/10 M	5	PVC, 0.34 mm ² ca. AWG 22, black color	
934884004	RKMW 5-671/15 M	5	PVC, 0.34 mm ² ca. AWG 22, black color	
934884005	RKMW 5-671/20 M	5	PVC, 0.34 mm ² ca. AWG 22, black color	
934884006	RKMW 5-671/25 M	5	PVC, 0.34 mm ² ca. AWG 22, black color	
934884007	RKMW 5-293/2 M	5	PUR, 0.34 mm ² ca. AWG 22, black color, halogen-free	 
934884008	RKMW 5-293/5 M	5	PUR, 0.34 mm ² ca. AWG 22, black color, halogen-free	 
934884009	RKMW 5-293/10 M	5	PUR, 0.34 mm ² ca. AWG 22, black color, halogen-free	 
934884010	RKMW 5-293/15 M	5	PUR, 0.34 mm ² ca. AWG 22, black color, halogen-free	 
934884011	RKMW 5-293/20 M	5	PUR, 0.34 mm ² ca. AWG 22, black color, halogen-free	 
934884012	RKMW 5-293/25 M	5	PUR, 0.34 mm ² ca. AWG 22, black color, halogen-free	 
934884013	RKMW 5-507/2 M	5	PVC, 0.25 mm ² ca. AWG 24, black color	
934884014	RKMW 5-507/5 M	5	PVC, 0.25 mm ² ca. AWG 24, black color	
934884015	RKMW 5-507/10 M	5	PVC, 0.25 mm ² ca. AWG 24, black color	
934884016	RKMW 5-507/15 M	5	PVC, 0.25 mm ² ca. AWG 24, black color	
934884017	RKMW 5-507/20 M	5	PVC, 0.25 mm ² ca. AWG 24, black color	
934884018	RKMW 5-507/25 M	5	PVC, 0.25 mm ² ca. AWG 24, black color	
934884019	RKMW 5-506/2 M	5	PUR, 0.25 mm ² ca. AWG 24, black color, halogen-free	 
934884020	RKMW 5-506/5 M	5	PUR, 0.25 mm ² ca. AWG 24, black color, halogen-free	 
934884021	RKMW 5-506/10 M	5	PUR, 0.25 mm ² ca. AWG 24, black color, halogen-free	 
934884022	RKMW 5-506/15 M	5	PUR, 0.25 mm ² ca. AWG 24, black color, halogen-free	 
934884023	RKMW 5-506/20 M	5	PUR, 0.25 mm ² ca. AWG 24, black color, halogen-free	 
934884024	RKMW 5-506/25 M	5	PUR, 0.25 mm ² ca. AWG 24, black color, halogen-free	 

Conversion table mm² to AWG on page 20.

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Female, Shielded

Technical Information













Product Description		
Order Designation	RKMVS	RKMWVS
		
Description	Actuator/sensor single-ended cordset, M8 female, straight, with self-locking screw coupling and overmolded cable, shield connected to knurled nut, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 female, angled, with self-locking screw coupling and overmolded cable, shield connected to knurled nut, 3 and 4-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	-	
Technical Data		
Ambient Temperature	-30 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

*a = O-ring • L = Standard length of cable • L 1 = Stripped insulation 30 mm

Pin Assignment



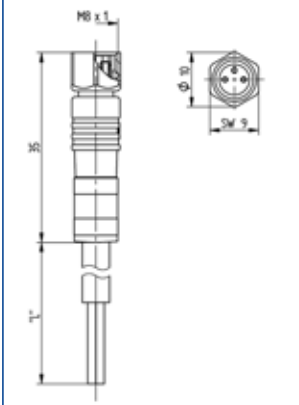
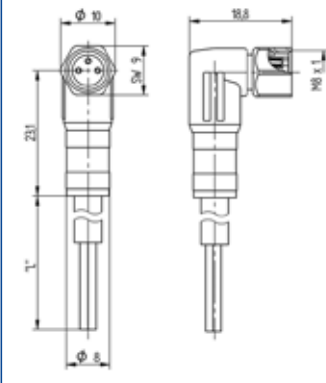
3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
81699	RKMVS 3-357/2 M	3	PUR, halogen-free, gray	
75021	RKMVS 3-357/5 M	3	PUR, halogen-free, gray	
81700	RKMVS 3-357/10 M	3	PUR, halogen-free, gray	
97658	RKMVS 4-358/2 M	4	PUR, halogen-free, gray	
75022	RKMVS 4-358/5 M	4	PUR, halogen-free, gray	
86858	RKMVS 4-358/10 M	4	PUR, halogen-free, gray	
104539	RKMWVS 3-357/2 M	3	PUR, halogen-free, gray	
75023	RKMWVS 3-357/5 M	3	PUR, halogen-free, gray	
104540	RKMWVS 3-357/10 M	3	PUR, halogen-free, gray	
103859	RKMWVS 4-358/2 M	4	PUR, halogen-free, gray	
75024	RKMWVS 4-358/5 M	4	PUR, halogen-free, gray	
104284	RKMWVS 4-358/10 M	4	PUR, halogen-free, gray	

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Female Food & Beverage – PVC Series

Technical Information

Product Description		
Order Designation	PRKMV	PRKMVW
		
Description	Actuator/sensor single-ended cordset, M8 female connector, straight, with self-locking screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 female connector, angled, with self-locking screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin
Note	Especially suitable for use in the food & beverage industry.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +70 °C, mind cable temperature range	
Housing Material/Grip	PVC	
Contact Holder Material	PVC/PA	
Contact Material/Surface Finish	CuSn, gold over nickel plating	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67/IP69K (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

3-pin



1 = brown
3 = blue
4 = black

4-pin





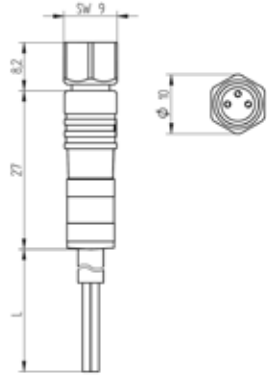
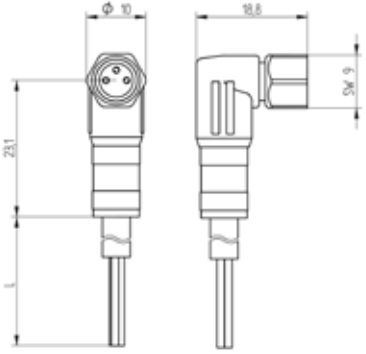
1 = brown
2 = white
3 = blue
4 = black

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934772001	PRKMV 3-06/2 M - 69K	3	PVC, orange	
934772002	PRKMV 3-06/5 M - 69K	3	PVC, orange	
934772003	PRKMV 3-06/10 M - 69K	3	PVC, orange	
934772004	PRKMV 3-06/15 M - 69K	3	PVC, orange	
934772005	PRKMV 3-06/20 M - 69K	3	PVC, orange	
934772006	PRKMV 4-07/2 M - 69K	4	PVC, orange	
934772007	PRKMV 4-07/5 M - 69K	4	PVC, orange	
934772008	PRKMV 4-07/10 M - 69K	4	PVC, orange	
934772009	PRKMV 4-07/15 M - 69K	4	PVC, orange	
934772010	PRKMV 4-07/20 M - 69K	4	PVC, orange	
934773001	PRKMWV 3-06/2 M - 69K	3	PVC, orange	
934773002	PRKMWV 3-06/5 M - 69K	3	PVC, orange	
934773003	PRKMWV 3-06/10 M - 69K	3	PVC, orange	
934773004	PRKMWV 3-06/15 M - 69K	3	PVC, orange	
934773005	PRKMWV 3-06/20 M - 69K	3	PVC, orange	
934773006	PRKMWV 4-07/2 M - 69K	4	PVC, orange	
934773007	PRKMWV 4-07/5 M - 69K	4	PVC, orange	
934773008	PRKMWV 4-07/10 M - 69K	4	PVC, orange	
934773009	PRKMWV 4-07/15 M - 69K	4	PVC, orange	
934773010	PRKMWV 4-07/20 M - 69K	4	PVC, orange	

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Female Food & Beverage – Wash-Down Series

Technical Information
































































































Product Description		
Order Designation	WRKMV	WRKMVW
		
Description	Actuator/sensor single-ended cordset, M8 female connector, straight, with self-locking screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 female connector, angled, with self-locking screw coupling and overmolded cable, stainless steel hexagonal nut, 3 and 4-pin
Note	Especially suitable for use in wash-down applications.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL, ECOLAB	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (as per UL; connectors designed for operating temperatures from -40 °C to +105 °C as per VDE), mind cable temperature range	
Housing Material/Grip	PP	
Contact Holder Material	PP	
Contact Material/Surface Finish	CuSn, gold over nickel plating	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67, IP68, IP69K (IEC 60529, only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	
Rated Current	3 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment




3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934729001	WRKMV 3-520/2 M	3	TPE-V, flame-resistant, orange	   
934729002	WRKMV 3-520/5 M	3	TPE-V, flame-resistant, orange	   
934729003	WRKMV 3-520/10 M	3	TPE-V, flame-resistant, orange	   
934729004	WRKMV 3-520/15 M	3	TPE-V, flame-resistant, orange	   
934729005	WRKMV 3-520/20 M	3	TPE-V, flame-resistant, orange	   
934729006	WRKMV 3-520/25 M	3	TPE-V, flame-resistant, orange	   
934729007	WRKMV 4-521/2 M	4	TPE-V, flame-resistant, orange	   
934729008	WRKMV 4-521/5 M	4	TPE-V, flame-resistant, orange	   
934729009	WRKMV 4-521/10 M	4	TPE-V, flame-resistant, orange	   
934729010	WRKMV 4-521/15 M	4	TPE-V, flame-resistant, orange	   
934729011	WRKMV 4-521/20 M	4	TPE-V, flame-resistant, orange	   
934729012	WRKMV 4-521/25 M	4	TPE-V, flame-resistant, orange	   
934730001	WRKMVV 3-520/2 M	3	TPE-V, flame-resistant, orange	   
934730002	WRKMVV 3-520/5 M	3	TPE-V, flame-resistant, orange	   
934730003	WRKMVV 3-520/10 M	3	TPE-V, flame-resistant, orange	   
934730004	WRKMVV 3-520/15 M	3	TPE-V, flame-resistant, orange	   
934730005	WRKMVV 3-520/20 M	3	TPE-V, flame-resistant, orange	   
934730006	WRKMVV 3-520/25 M	3	TPE-V, flame-resistant, orange	   
934730007	WRKMVV 4-521/2 M	4	TPE-V, flame-resistant, orange	   
934730008	WRKMVV 4-521/5 M	4	TPE-V, flame-resistant, orange	   
934730009	WRKMVV 4-521/10 M	4	TPE-V, flame-resistant, orange	   
934730010	WRKMVV 4-521/15 M	4	TPE-V, flame-resistant, orange	   
934730011	WRKMVV 4-521/20 M	4	TPE-V, flame-resistant, orange	   
934730012	WRKMVV 4-521/25 M	4	TPE-V, flame-resistant, orange	   

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Male, Standard

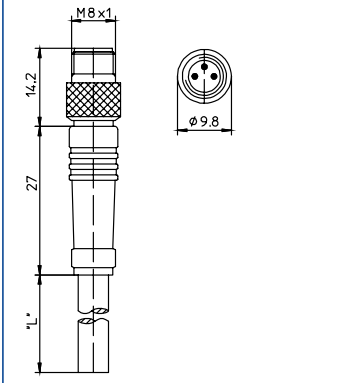
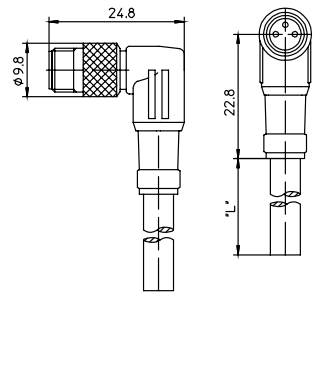
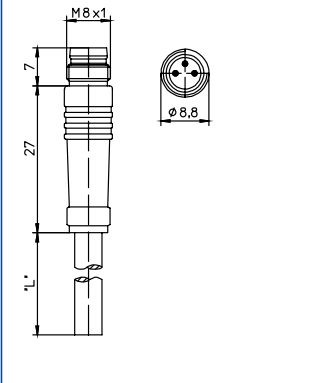
Technical Information

Product Description			
Order Designation	RSMV(N)	RSMWV	RSM
			
Description	Actuator/sensor single-ended cordset, M8 male, straight, with self-locking screw coupling and overmolded cable, 3 and 4-pin, RSMVN: with V4A screw coupling	Actuator/sensor single-ended cordset, M8 male connector, angled, with self-locking screw coupling and overmolded cable, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 male connector, straight, with plug-in/screw coupling and overmolded cable, 3 to 8-pin
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104		
Approvals	UL		

Technical Data	
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range
Housing Material/Grip	TPU translucent
Contact Holder Material	PA/TPU
Contact Material/Surface Finish	CuSn, gold over nickel plating
Screw Coupling Material	CuZn, nickel-plated (RSMVN V4A hexagonal)
	PA
	CuZn, gold over nickel plating




Mechanical Data	
Degree of Protection	IP67, IP69K (only when mated with Hirschmann/Lumberg counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A
Pollution Degree	3
	3-pin 50 V AC/60 V DC, 4 and 8-pin 30 V AC/DC
	3 and 4-pin 4 A, 8-pin 1 A




Technical Drawing		
		

L = Standard length of cable










































































Pin Assignment

3-pin	4-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11675	RSMV 3-06/2 M	3	PVC, orange	  
11676	RSMV 3-06/5 M	3	PVC, orange	
11674	RSMV 3-06/10 M	3	PVC, orange	

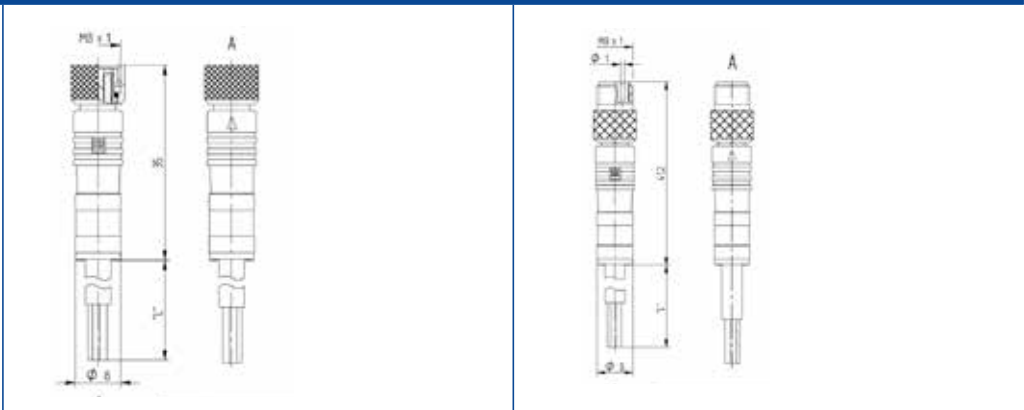
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43640	RSMV 3-224/2 M	3	PUR, halogen-free, black	   
43648	RSMV 3-224/5 M	3	PUR, halogen-free, black	
43624	RSMV 3-224/10 M	3	PUR, halogen-free, black	
9720	RSMV 3-260/2 M	3	PUR, halogen-free, orange	    
95499	RSMV 3-260/5 M	3	PUR, halogen-free, orange	
9725	RSMV 3-260/10 M	3	PUR, halogen-free, orange	
11713	RSMV 4-07/2 M	4	PVC, orange	 
11714	RSMV 4-07/5 M	4	PVC, orange	
11712	RSMV 4-07/10 M	4	PVC, orange	
43748	RSMV 4-225/2 M	4	PUR, halogen-free, black	   
38600	RSMV 4-225/5 M	4	PUR, halogen-free, black	
43746	RSMV 4-225/10 M	4	PUR, halogen-free, black	
9726	RSMV 4-251/2 M	4	PUR, halogen-free, orange	    
95503	RSMV 4-251/5 M	4	PUR, halogen-free, orange	
9728	RSMV 4-251/10 M	4	PUR, halogen-free, orange	
704	RSMV 4-500/2 M	4	PUR, halogen-free, black	    
705	RSMV 4-500/5 M	4	PUR, halogen-free, black	
706	RSMV 4-500/10 M	4	PUR, halogen-free, black	
95486	RSMVN 3-06/2 M	3	PVC, orange	  
92740	RSMVN 3-06/5 M	3	PVC, orange	
96642	RSMVN 3-06/10 M	3	PVC, orange	
109839	RSMWV 3-06/2 M	3	PVC, orange	
934637054	RSMWV 3-06/5 M	3	PVC, orange	
1434	RSMWV 3-06/10 M	3	PVC, orange	
934636143	RSMWV 3-224/2 M	3	PUR, halogen-free, black	   
934637482	RSMWV 3-224/5 M	3	PUR, halogen-free, black	
934637483	RSMWV 3-224/10 M	3	PUR, halogen-free, black	
9729	RSMWV 3-260/2 M	3	PUR, halogen-free, orange	      
9730	RSMWV 3-260/5 M	3	PUR, halogen-free, orange	
9731	RSMWV 3-260/10 M	3	PUR, halogen-free, orange	
108619	RSMWV 4-07/2 M	4	PVC, orange	
934636035	RSMWV 4-07/5 M	4	PVC, orange	
6	RSMWV 4-07/10 M	4	PVC, orange	
108385	RSMWV 4-225/2 M	4	PUR, halogen-free, black	   
1435	RSMWV 4-225/5 M	4	PUR, halogen-free, black	
7	RSMWV 4-225/10 M	4	PUR, halogen-free, black	
9732	RSMWV 4-251/2 M	4	PUR, halogen-free, orange	    
9734	RSMWV 4-251/10 M	4	PUR, halogen-free, orange	
9733	RSMWV 4-251/5 M	4	PUR, halogen-free, orange	
745	RSMWV 4-500/2 M	4	PUR, halogen-free, black	    
746	RSMWV 4-500/5 M	4	PUR, halogen-free, black	
748	RSMWV 4-500/10 M	4	PUR, halogen-free, black	
11646	RSM 3-06/2 M	3	PVC, orange	  
9735	RSM 3-06/5 M	3	PVC, orange	
106656	RSM 3-06/10 M	3	PVC, orange	
44411	RSM 3-224/2 M	3	PUR, halogen-free, black	   
82863	RSM 3-224/5 M	3	PUR, halogen-free, black	
9742	RSM 3-224/10 M	3	PUR, halogen-free, black	
11650	RSM 4-07/2 M	4	PVC, orange	   
9744	RSM 4-07/5 M	4	PVC, orange	
104885	RSM 4-07/10 M	4	PVC, orange	
934636500	RSM 4-225/2 M	4	PUR, halogen-free, black	  
9747	RSM 4-225/5 M	4	PUR, halogen-free, black	
9750	RSM 4-225/10 M	4	PUR, halogen-free, black	
934636169	RSM 8-354/2 M	8	PUR, halogen-free, black	   
934636551	RSM 8-354/5 M	8	PUR, halogen-free, black	
934636552	RSM 8-354/10 M	8	PUR, halogen-free, black	

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Straight Female and Male with Screw Coupling Nut for Actuators and Sensors

Technical Information

Product Description		
Order Designation	RKMV 5	RSMV 5
		
Description	Actuator/sensor single ended cordset, M8 female connector, straight, with screw coupling and overmolded cable, 5-pin, B-coding	Actuator/sensor single ended cordset, M8 male connector, straight, with screw coupling and overmolded cable, 5-pin, B-coding
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 to +90°C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65, IP67, IP69K (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	30 V AC/DC	
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)	
Pollution Degree	3	
Technical Drawing		


























































































































L = Standard length of cable

Pin Assignment

M8, female, 5-poles	M8, male, 5-poles
 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 5 = gray


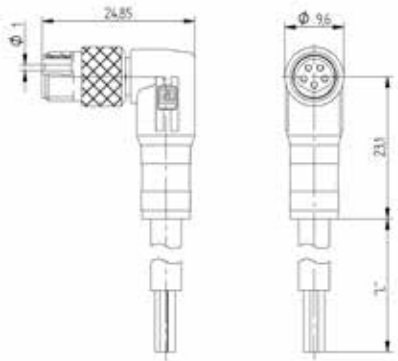
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934841001	RKMV 5-671/2 M	5	PVC, black	0.34 mm ²	
934841002	RKMV 5-671/5 M	5	PVC, black	0.34 mm ²	
934841003	RKMV 5-671/10 M	5	PVC, black	0.34 mm ²	
934841004	RKMV 5-671/15 M	5	PVC, black	0.34 mm ²	
934841005	RKMV 5-671/20 M	5	PVC, black	0.34 mm ²	
934841006	RKMV 5-671/25 M	5	PVC, black	0.34 mm ²	
934841007	RKMV 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841008	RKMV 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841009	RKMV 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841010	RKMV 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841011	RKMV 5-293/20 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841012	RKMV 5-293/25 M	5	PUR, halogen-free, black	0.34 mm ²	   
934841013	RKMV 5-507/2 M	5	PVC, black	0.25 mm ²	
934841014	RKMV 5-507/5 M	5	PVC, black	0.25 mm ²	
934841015	RKMV 5-507/10 M	5	PVC, black	0.25 mm ²	
934841016	RKMV 5-507/15 M	5	PVC, black	0.25 mm ²	
934841017	RKMV 5-507/20 M	5	PVC, black	0.25 mm ²	
934841018	RKMV 5-507/25 M	5	PVC, black	0.25 mm ²	
934841019	RKMV 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934841020	RKMV 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	   
934841021	RKMV 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	   
934841022	RKMV 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	   
934841023	RKMV 5-506/20 M	5	PUR, halogen-free, black	0.25 mm ²	   
934841024	RKMV 5-506/25 M	5	PUR, halogen-free, black	0.25 mm ²	   
934843001	RSMV 5-671/2 M	5	PVC, black	0.34 mm ²	
934843002	RSMV 5-671/5 M	5	PVC, black	0.34 mm ²	
934843003	RSMV 5-671/10 M	5	PVC, black	0.34 mm ²	
934843004	RSMV 5-671/15 M	5	PVC, black	0.34 mm ²	
934843005	RSMV 5-671/20 M	5	PVC, black	0.34 mm ²	
934843006	RSMV 5-671/25 M	5	PVC, black	0.34 mm ²	
934843007	RSMV 5-293/2 M	5	PUR, Halogen free, black	0.34 mm ²	   
934843008	RSMV 5-293/5 M	5	PUR, Halogen free, black	0.34 mm ²	   
934843009	RSMV 5-293/10 M	5	PUR, Halogen free, black	0.34 mm ²	   
934843010	RSMV 5-293/15 M	5	PUR, Halogen free, black	0.34 mm ²	   
934843011	RSMV 5-293/20 M	5	PUR, Halogen free, black	0.34 mm ²	   
934843012	RSMV 5-293/25 M	5	PUR, Halogen free, black	0.34 mm ²	   
934843013	RSMV 5-507/2 M	5	PVC, black	0.25 mm ²	
934843014	RSMV 5-507/5 M	5	PVC, black	0.25 mm ²	
934843015	RSMV 5-507/10 M	5	PVC, black	0.25 mm ²	
934843016	RSMV 5-507/15 M	5	PVC, black	0.25 mm ²	
934843017	RSMV 5-507/20 M	5	PVC, black	0.25 mm ²	
934843018	RSMV 5-507/25 M	5	PVC, black	0.25 mm ²	
934843019	RSMV 5-506/2 M	5	PUR, Halogen free, black	0.25 mm ²	   
934843020	RSMV 5-506/5 M	5	PUR, Halogen free, black	0.25 mm ²	   
934843021	RSMV 5-506/10 M	5	PUR, Halogen free, black	0.25 mm ²	   
934843022	RSMV 5-506/15 M	5	PUR, Halogen free, black	0.25 mm ²	   
934843023	RSMV 5-506/20 M	5	PUR, Halogen free, black	0.25 mm ²	   
934843024	RSMV 5-506/25 M	5	PUR, Halogen free, black	0.25 mm ²	   

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Single-Ended Overmolded Cordsets, Right-Angle Male with Screw Coupling for Actuators and Sensors

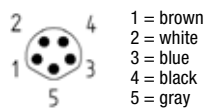
Technical Information

Product Description	
Order Designation	RSMWV 5
	
Description	Actuator/sensor single ended cordset, M8 male connector, angeled, with screw coupling and overmolded cable, 5-pin, B-coding
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Approvals	UL
Technical Data	
Ambient Temperature	-40 to +90°C, mind cable temperature range
Housing Material/Grip	TPU
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP65, IP67, IP69K (only when mated with Hirschmann/Lumberg counterparts/IP69K only with PUR STL)
Electrical Data	
Contact Resistance	≤ 10 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)
Pollution Degree	3
Technical Drawing	
	













L = Standard length of cable

Pin Assignment

M8, male, 5-poles





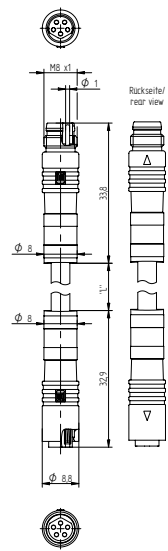
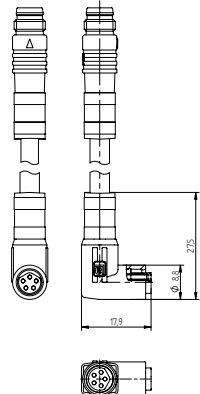
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934844001	RSMWV 5-671/2 M	5	PVC, black	0.34 mm ²	 
934844002	RSMWV 5-671/5 M	5	PVC, black	0.34 mm ²	
934844003	RSMWV 5-671/10 M	5	PVC, black	0.34 mm ²	
934844004	RSMWV 5-671/15 M	5	PVC, black	0.34 mm ²	
934844005	RSMWV 5-671/20 M	5	PVC, black	0.34 mm ²	
934844006	RSMWV 5-671/25 M	5	PVC, black	0.34 mm ²	
934844007	RSMWV 5-293/2 M	5	PUR, Halogen free, black	0.34 mm ²	   
934844008	RSMWV 5-293/5 M	5	PUR, Halogen free, black	0.34 mm ²	
934844009	RSMWV 5-293/10 M	5	PUR, Halogen free, black	0.34 mm ²	
934844010	RSMWV 5-293/15 M	5	PUR, Halogen free, black	0.34 mm ²	
934844011	RSMWV 5-293/20 M	5	PUR, Halogen free, black	0.34 mm ²	
934844012	RSMWV 5-293/25 M	5	PUR, Halogen free, black	0.34 mm ²	
934844013	RSMWV 5-507/2 M	5	PVC, black	0.25 mm ²	 
934844014	RSMWV 5-507/5 M	5	PVC, black	0.25 mm ²	
934844015	RSMWV 5-507/10 M	5	PVC, black	0.25 mm ²	
934844016	RSMWV 5-507/15 M	5	PVC, black	0.25 mm ²	
934844017	RSMWV 5-507/20 M	5	PVC, black	0.25 mm ²	
934844018	RSMWV 5-507/25 M	5	PVC, black	0.25 mm ²	
934844019	RSMWV 5-506/2 M	5	PUR, Halogen free, black	0.25 mm ²	   
934844020	RSMWV 5-506/5 M	5	PUR, Halogen free, black	0.25 mm ²	
934844021	RSMWV 5-506/10 M	5	PUR, Halogen free, black	0.25 mm ²	
934844022	RSMWV 5-506/15 M	5	PUR, Halogen free, black	0.25 mm ²	
934844023	RSMWV 5-506/20 M	5	PUR, Halogen free, black	0.25 mm ²	
934844024	RSMWV 5-506/25 M	5	PUR, Halogen free, black	0.25 mm ²	

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Double-Ended Overmolded Cordsets, Straight and Right Angle, Male to Female for Actuators and Sensors

Technical Information

Product Description		
Order Designation	RSM 5-RKM 5	RSM 5-RKMW 5
		
Description	Double ended cordset for sensor/actuator applications combining M8 male, straight, 5 pin, with snap/screw (fixed) attachment and M8 female, straight, 5-pin with snap attachment	Double ended cordset for sensor/actuator applications combining M8 male, straight, 5 pin, with snap/screw (fixed) attachment and M8 female, angled, 5-pin with snap attachment
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL	
Technical Data		
Ambient Temperature	-40 to +90°C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold-plated	
Screw Coupling Material	RSM 5: CuZn nickel-plated (screw), PA (snap) RKM 5: TPU (snap)	
Mechanical Data		
Degree of Protection	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts/IP67 only when screwed)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	30 V AC/DC	
Rated Current	3 A (0.25 mm ²)/4 A (0.34 mm ²)	
Pollution Degree	3	
Technical Drawing		
		






L = Standard length of cable

Pin Assignment

M8, Male and Female, 5-poles


















Order Information

































































Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894001	RSM 5-RKM 5-671/0.3 M	5	PVC, black	0.34 mm ²	
934894002	RSM 5-RKM 5-671/0.6 M	5	PVC, black	0.34 mm ²	
934894003	RSM 5-RKM 5-671/1 M	5	PVC, black	0.34 mm ²	
934894004	RSM 5-RKM 5-671/2 M	5	PVC, black	0.34 mm ²	
934894005	RSM 5-RKM 5-671/3 M	5	PVC, black	0.34 mm ²	
934894006	RSM 5-RKM 5-671/5 M	5	PVC, black	0.34 mm ²	
934894007	RSM 5-RKM 5-671/10 M	5	PVC, black	0.34 mm ²	
934894008	RSM 5-RKM 5-671/15 M	5	PVC, black	0.34 mm ²	
934894009	RSM 5-RKM 5-507/0.3 M	5	PVC, black	0.25 mm ²	
934894010	RSM 5-RKM 5-507/0.6 M	5	PVC, black	0.25 mm ²	
934894011	RSM 5-RKM 5-507/1 M	5	PVC, black	0.25 mm ²	
934894012	RSM 5-RKM 5-507/2 M	5	PVC, black	0.25 mm ²	
934894013	RSM 5-RKM 5-507/3 M	5	PVC, black	0.25 mm ²	
934894014	RSM 5-RKM 5-507/5 M	5	PVC, black	0.25 mm ²	
934894015	RSM 5-RKM 5-507/10 M	5	PVC, black	0.25 mm ²	
934894016	RSM 5-RKM 5-507/15 M	5	PVC, black	0.25 mm ²	
934894017	RSM 5-RKM 5-293/0.3 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894018	RSM 5-RKM 5-293/0.6 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894019	RSM 5-RKM 5-293/1 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894020	RSM 5-RKM 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894021	RSM 5-RKM 5-293/3 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894022	RSM 5-RKM 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894023	RSM 5-RKM 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	  
934894024	RSM 5-RKM 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	  

M8 5-Pole, B-coding Double-Ended Overmolded Cordsets, Straight and Right Angle, Male to Female for Actuators and Sensors (continued)

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894025	RSM 5-RKM 5-506/0.3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894026	RSM 5-RKM 5-506/0.6 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894027	RSM 5-RKM 5-506/1 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894028	RSM 5-RKM 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894029	RSM 5-RKM 5-506/3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894030	RSM 5-RKM 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894031	RSM 5-RKM 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894032	RSM 5-RKM 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894101	RSM 5-RKMW 5-671/0.3 M	5	PVC, black	0.34 mm ²	 
934894102	RSM 5-RKMW 5-671/0.6 M	5	PVC, black	0.34 mm ²	 
934894103	RSM 5-RKMW 5-671/1 M	5	PVC, black	0.34 mm ²	 
934894104	RSM 5-RKMW 5-671/2 M	5	PVC, black	0.34 mm ²	 
934894105	RSM 5-RKMW 5-671/3 M	5	PVC, black	0.34 mm ²	 
934894106	RSM 5-RKMW 5-671/5 M	5	PVC, black	0.34 mm ²	 
934894107	RSM 5-RKMW 5-671/10 M	5	PVC, black	0.34 mm ²	 
934894108	RSM 5-RKMW 5-671/15 M	5	PVC, black	0.34 mm ²	 
934894109	RSM 5-RKMW 5-507/0.3 M	5	PVC, black	0.25 mm ²	 
934894110	RSM 5-RKMW 5-507/0.6 M	5	PVC, black	0.25 mm ²	 
934894111	RSM 5-RKMW 5-507/1 M	5	PVC, black	0.25 mm ²	 
934894112	RSM 5-RKMW 5-507/2 M	5	PVC, black	0.25 mm ²	 
934894113	RSM 5-RKMW 5-507/3 M	5	PVC, black	0.25 mm ²	 
934894114	RSM 5-RKMW 5-507/5 M	5	PVC, black	0.25 mm ²	 
934894115	RSM 5-RKMW 5-507/10 M	5	PVC, black	0.25 mm ²	 
934894116	RSM 5-RKMW 5-507/15 M	5	PVC, black	0.25 mm ²	 



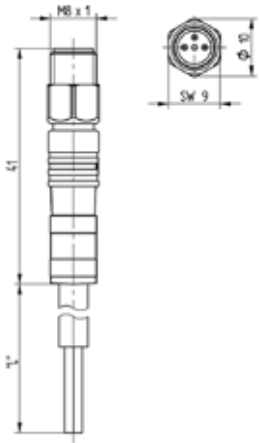
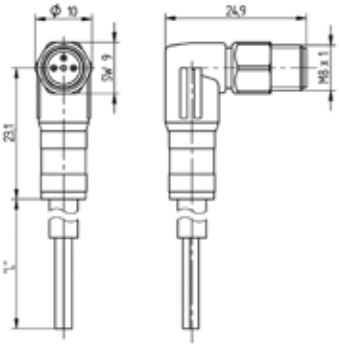
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Conductor Size	Characteristics
934894117	RSM 5-RKMW 5-293/0.3 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894118	RSM 5-RKMW 5-293/0.6 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894119	RSM 5-RKMW 5-293/1 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894120	RSM 5-RKMW 5-293/2 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894121	RSM 5-RKMW 5-293/3 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894122	RSM 5-RKMW 5-293/5 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894123	RSM 5-RKMW 5-293/10 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894124	RSM 5-RKMW 5-293/15 M	5	PUR, halogen-free, black	0.34 mm ²	   
934894125	RSM 5-RKMW 5-506/0.3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894126	RSM 5-RKMW 5-506/0.6 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894127	RSM 5-RKMW 5-506/1 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894128	RSM 5-RKMW 5-506/2 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894129	RSM 5-RKMW 5-506/3 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894130	RSM 5-RKMW 5-506/5 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894131	RSM 5-RKMW 5-506/10 M	5	PUR, halogen-free, black	0.25 mm ²	   
934894132	RSM 5-RKMW 5-506/15 M	5	PUR, halogen-free, black	0.25 mm ²	   

Conversion table mm² to AWG on page 20.

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Male Food & Beverage – PVC Series

Technical Information









































Product Description		
Order Designation	PRSMV	PRSMWV
		
Description	Actuator/sensor single-ended cordset, M8 male connector, straight, with self-locking screw coupling and overmolded cable, stainless steel hexagonal screw, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 male connector, angled, with self-locking screw coupling and overmolded cable, stainless steel hexagonal screw, 3-pin
Note	Especially suitable for use in the food & beverage industry.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +70 °C, mind cable temperature range	
Housing Material/Grip	PVC	
Contact Holder Material	PVC	
Contact Material/Surface Finish	CuSn, gold over nickel plating	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67/IP69K (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment



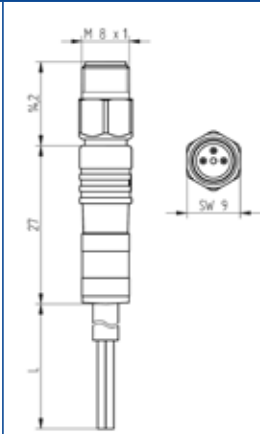
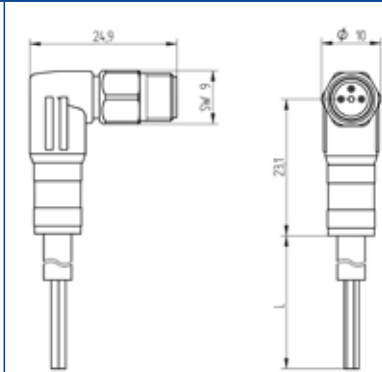
3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934774001	PRSMV 3-06/2 M – 69K	3	PVC, orange	 
934774002	PRSMV 3-06/5 M – 69K	3	PVC, orange	 
934774003	PRSMV 3-06/10 M – 69K	3	PVC, orange	 
934774004	PRSMV 3-06/15 M – 69K	3	PVC, orange	 
934774005	PRSMV 3-06/20 M – 69K	3	PVC, orange	 
934774006	PRSMV 4-07/2 M – 69K	4	PVC, orange	 
934774007	PRSMV 4-07/5 M – 69K	4	PVC, orange	 
934774008	PRSMV 4-07/10 M – 69K	4	PVC, orange	 
934774009	PRSMV 4-07/15 M – 69K	4	PVC, orange	 
934774010	PRSMV 4-07/20 M – 69K	4	PVC, orange	 
934775001	PRSMWV 3-06/2 M – 69K	3	PVC, orange	 
934775002	PRSMWV 3-06/5 M – 69K	3	PVC, orange	 
934775003	PRSMWV 3-06/10 M – 69K	3	PVC, orange	 
934775004	PRSMWV 3-06/15 M – 69K	3	PVC, orange	 
934775005	PRSMWV 3-06/20 M – 69K	3	PVC, orange	 
934775006	PRSMWV 4-07/2 M – 69K	4	PVC, orange	 
934775007	PRSMWV 4-07/5 M – 69K	4	PVC, orange	 
934775008	PRSMWV 4-07/10 M – 69K	4	PVC, orange	 
934775009	PRSMWV 4-07/15 M – 69K	4	PVC, orange	 
934775010	PRSMWV 4-07/20 M – 69K	4	PVC, orange	 

Single-ended Overmolded M8 Connectors for Actuators and Sensors – Male Food & Beverage – Wash-Down Series

Technical Information

































































































Product Description		
Order Designation	WRSMV	WRSMWV
		
Description	Actuator/sensor single-ended cordset, M8 male connector, straight, with self-locking screw coupling and overmolded cable, stainless steel hexagonal screw, 3 and 4-pin	Actuator/sensor single-ended cordset, M8 male connector, angled, with self-locking screw coupling and overmolded cable, stainless steel hexagonal screw, 3 and 4-pin
Note	Especially suitable for use in the food & beverage industry.	
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	UL (to +90 °C), ECOLAB	
Technical Data		
Ambient Temperature	-40 °C to +105 °C (UL to + 90 °C), mind cable temperature range	
Housing Material/Grip	PP white	
Contact Holder Material	PP white	
Contact Material/Surface Finish	CuSn, gold over nickel plating	
Screw Coupling Material	Stainless steel	
Mechanical Data		
Degree of Protection	IP67, IP68, IP69K (IEC 60529, only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment




3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
934731001	WRSMV 3-520/2 M	3	TPE-V, flame-resistant, orange	   
934731002	WRSMV 3-520/5 M	3	TPE-V, flame-resistant, orange	   
934731003	WRSMV 3-520/10 M	3	TPE-V, flame-resistant, orange	   
934731004	WRSMV 3-520/15 M	3	TPE-V, flame-resistant, orange	   
934731005	WRSMV 3-520/20 M	3	TPE-V, flame-resistant, orange	   
934731006	WRSMV 3-520/25 M	3	TPE-V, flame-resistant, orange	   
934731007	WRSMV 4-521/2 M	4	TPE-V, flame-resistant, orange	   
934731008	WRSMV 4-521/5 M	4	TPE-V, flame-resistant, orange	   
934731009	WRSMV 4-521/10 M	4	TPE-V, flame-resistant, orange	   
934731010	WRSMV 4-521/15 M	4	TPE-V, flame-resistant, orange	   
934731011	WRSMV 4-521/20 M	4	TPE-V, flame-resistant, orange	   
934731012	WRSMV 4-521/25 M	4	TPE-V, flame-resistant, orange	   
934732001	WRSMWV 3-520/2 M	3	TPE-V, flame-resistant, orange	   
934732002	WRSMWV 3-520/5 M	3	TPE-V, flame-resistant, orange	   
934732003	WRSMWV 3-520/10 M	3	TPE-V, flame-resistant, orange	   
934732004	WRSMWV 3-520/15 M	3	TPE-V, flame-resistant, orange	   
934732005	WRSMWV 3-520/20 M	3	TPE-V, flame-resistant, orange	   
934732006	WRSMWV 3-520/25 M	3	TPE-V, flame-resistant, orange	   
934732007	WRSMWV 4-521/2 M	4	TPE-V, flame-resistant, orange	   
934732008	WRSMWV 4-521/5 M	4	TPE-V, flame-resistant, orange	   
934732009	WRSMWV 4-521/10 M	4	TPE-V, flame-resistant, orange	   
934732010	WRSMWV 4-521/15 M	4	TPE-V, flame-resistant, orange	   
934732011	WRSMWV 4-521/20 M	4	TPE-V, flame-resistant, orange	   
934732012	WRSMWV 4-521/25 M	4	TPE-V, flame-resistant, orange	   

Field Attachable M8 Connectors for Actuators and Sensors – Female

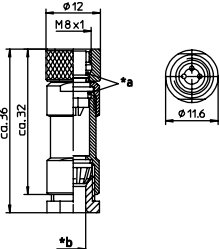
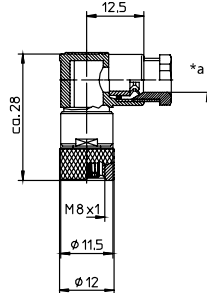
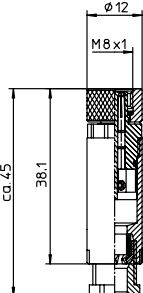
Technical Information

Product Description			
Order Designation	RKMC	RKMCW	RKMCK
			
Description	Field attachable connector, M8 female, straight, with screw coupling, assembly using solder terminals, 3 and 4-pin	Field attachable connector, M8 female, angled, with screw coupling, assembly using solder terminals, 3 and 4-pin	Field attachable connector, M8 female, straight, with screw coupling, assembly using screw-type terminals, 3 and 4-pin
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104		
Approvals	-		

Technical Data	
Ambient Temperature	-40 °C to +85 °C
Housing Material/Grip	PBT/PA
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, gold-plated
Screw Coupling Material	ZnAl, nickel-plated

Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A
Pollution Degree	3

Technical Drawing		
		

*a = O-ring • *b = Cable passage



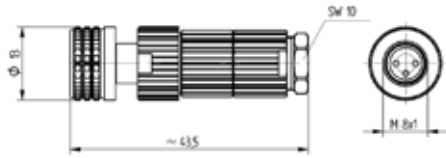
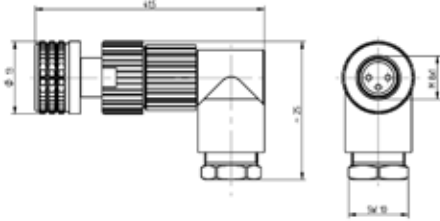
Pin Assignment**3-pin****4-pin****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
2057	RKMC 3	3	solder	max. 0.25 mm ²	Ø 3.5 to 5.0 mm	
2058	RKMC 4	4	solder	max. 0.25 mm ²	Ø 3.5 to 5.0 mm	
69542	RKMCW 3	3	solder	max. 0.25 mm ²	Ø 3.5 to 5.0 mm	
69543	RKMCW 4	4	solder	max. 0.25 mm ²	Ø 3.5 to 5.0 mm	
28046	RKMCK 3	3	screw	0.14 to 0.50 mm ²	Ø 3.5 to 5.0 mm	
28047	RKMCK 4	4	screw	0.14 to 0.50 mm ²	Ø 3.5 to 5.0 mm	









Conversion table mm² to AWG on page 20.

Field Attachable M8 Connectors for Actuators and Sensors – Female

Technical Information

Product Description		
Order Designation	ELKA	ELWIKA
		
Description	Field attachable connector, M8 female connector, straight, strain relief via clamping cage, quick connection (cable pierce technology), 3 and 4-pin	Field attachable connector, M8 female connector, angled, strain relief relief via clamping cage, quick connection (cable pierce technology), 3 and 4-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +70 °C	
Housing Material/Grip	PA	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, Cu/Au	
Screw Coupling Material	ZnAl, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	
Rated Current	4 A (2 A at 0.14 mm ²)	
Pollution Degree	3	
Technical Drawing		
		




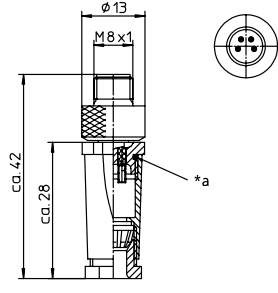
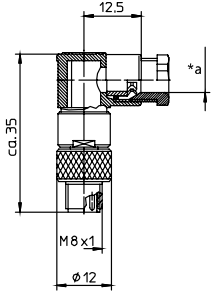
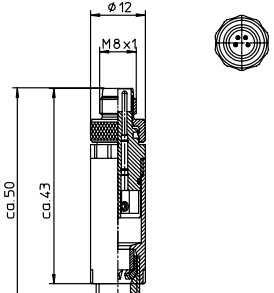
Pin Assignment**3-pin****4-pin****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
933366100	ELKA 3008 V	3	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 
933367100	ELKA 4008 V	4	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 
933368100	ELWIK A 3008 V	3	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 
933369100	ELWIK A 4008 V	4	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 

Conversion table mm² to AWG on page 20.

Field Attachable M8 Connectors for Actuators and Sensors – Male

Technical Information

Product Description			
Order Designation	RSMC	RSMCW	RSMCK
			
Description	Field attachable connector, M8 male, straight, with screw coupling, assembly using solder terminals, 3 and 4-pin	Field attachable connector, M8 male, angled, with screw coupling, assembly using solder terminals, 3 and 4-pin	Field attachable connector, M8 male, straight, with screw coupling, assembly using screw-type terminals, 3 and 4-pin
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104		
Approvals	–		
Technical Data			
Ambient Temperature	-25°C to +80°C	-40 °C to +85 °C	
Housing Material/Grip	CuZn, nickel-plated	PBT/PA	
Contact Holder Material	PA		
Contact Material/Surface Finish	CuZn, gold-plated		
Screw Coupling Material	CuZn, nickel-plated	CuZn, nickel-plated	
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	$\leq 5 \text{ m}\Omega$		
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC		
Rated Current	4 A		
Pollution Degree	3		
Technical Drawing			
			

*a = Cable passage



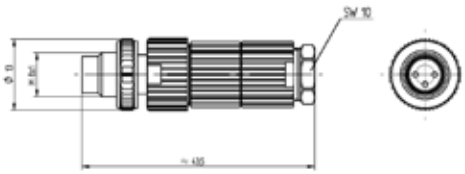
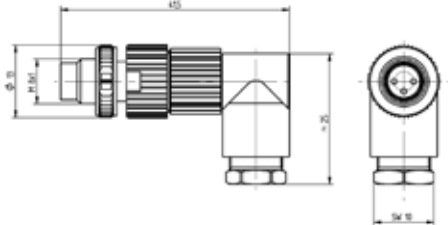
Pin Assignment**3-pin****4-pin****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
11652	RSMC 3	3	solder	max. 0.34 mm ²	Ø 3.5 to 5.0 mm	
11653	RSMC 4	4	solder	max. 0.34 mm ²	Ø 3.5 to 5.0 mm	
69544	RSMCW 3	3	solder	max. 0.25 mm ²	Ø 3.5 to 5.0 mm	
69545	RSMCW 4	4	solder	max. 0.25 mm ²	Ø 3.5 to 5.0 mm	
28044	RSMCK 3	3	screw	0.14 to 0.50 mm ²	Ø 3.5 to 5.0 mm	
28045	RSMCK 4	4	screw	0.14 to 0.50 mm ²	Ø 3.5 to 5.0 mm	









Conversion table mm² to AWG on page 20.

Field Attachable M8 Connectors for Actuators and Sensors – Male

Technical Information

Product Description		
Order Designation	ELST	ELWIST
		
Description	Field attachable connector, M8 male, straight, strain relief via clamping cage, quick connection (cable pierce technology), 3 and 4-pin	Field attachable connector, M8 male, angled, strain relief via clamping cage, quick connection (cable pierce technology), 3 and 4-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +70 °C	
Housing Material/Grip	PA	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuSn, gold plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC	
Rated Current	4 A (2 A at 0.14 mm ²)	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (included)	100 units	100 units
Technical Drawing		
		



Pin Assignment**3-pin****4-pin****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
933406100	ELST 3008 V	3	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 
933407100	ELST 4008 V	4	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 
933408100	ELWIST 3008 V	3	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 
933409100	ELWIST 4008 V	4	cable pierce	0.14 to 0.34 mm ²	Ø 4 to 5 mm, M9, 5 x 1	 

Conversion table mm² to AWG on page 20.

M8 Receptacle Connectors for Actuators and Sensors – Female

Technical Information

Product Description		
Order Designation	RKMF .../0.5 M	RKMHL .../S 5.5
		
Description	Receptacle connector, M8 female, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, M8 x 0.5 screw coupling at mounting side, 0.5 meter, 3 and 4-pin	Receptacle connector, M8 female for rear panel mounting, PCB contacts, M10 x 1 screw coupling at mounting side, 3 and 4-pin
Note	Mounting using RSKF 8	Mounting nut included
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	-	

Technical Data

Ambient Temperature	-25 °C to +80 °C
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	TPU
Contact Material/Surface Finish	CuZn, gold over nickel plating

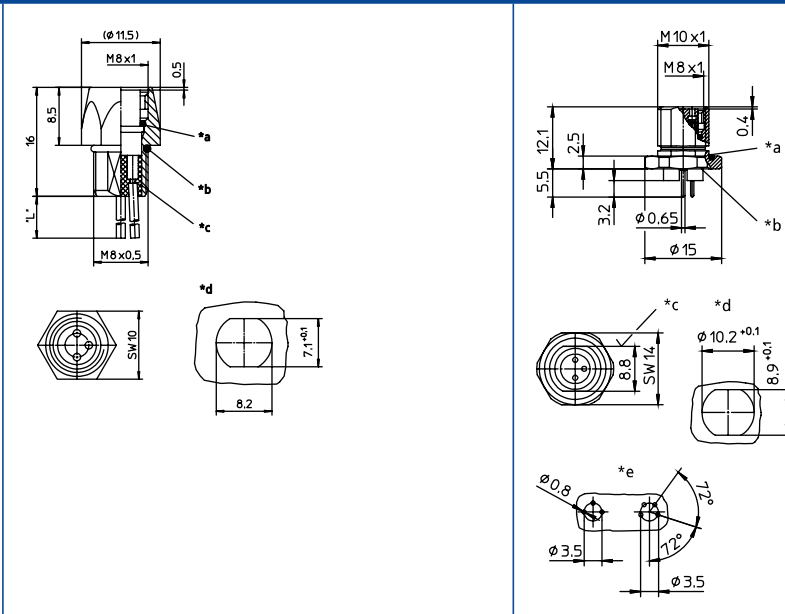
Mechanical Data

Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
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Electrical Data

Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A
Pollution Degree	3

Technical Drawing













RKMF .../0.5 M: *a = O-ring • *b = O-ring supplied loose • *c = Conductor terminal area potted • *d = Panel cut out • *e = Pin layout on printed circuit board
 RKMHL .../S 5.5: *a = O-ring • *b = Conductor terminal area potted • *c = Anti-twist protection • *d = Panel cut out • *e = Pin layout on printed circuit board

Pin Assignment

3-pin	4-pin
 <p>1 = brown 3 = blue 4 = black</p>	 <p>1 = brown 2 = white 3 = blue 4 = black</p>



Order Information

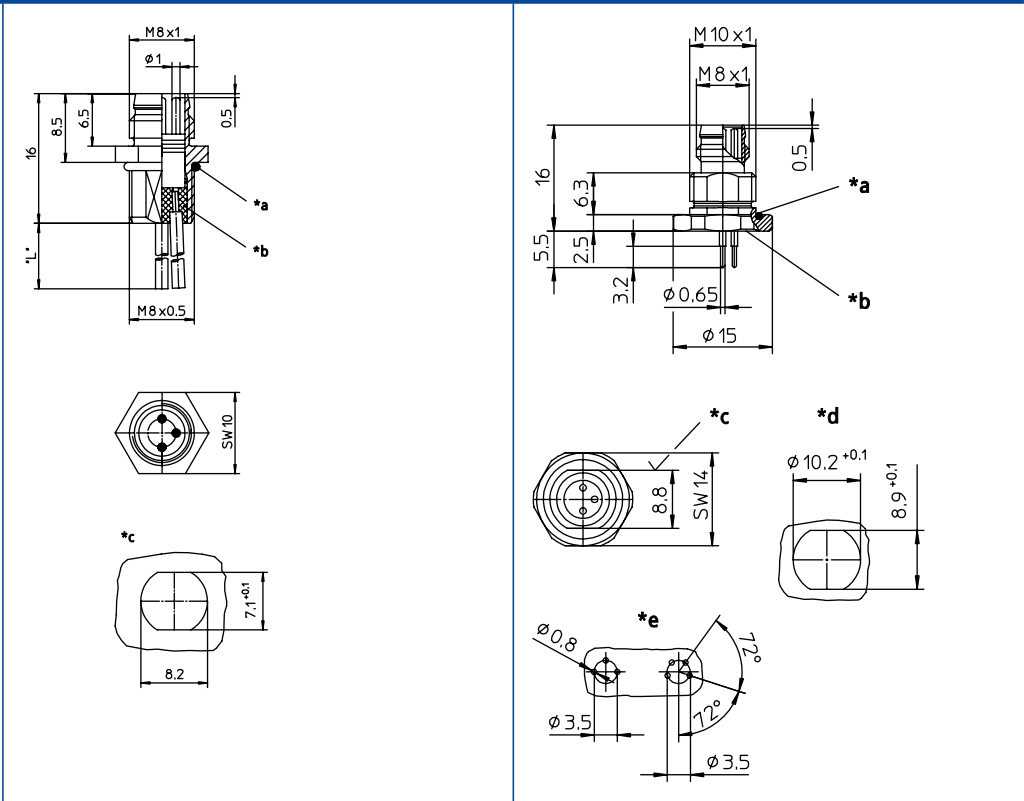
Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
3011	RKMF 3/0.1 M	3	stranded hook-up wire	0.22 mm ²	
13130	RKMF 3/0.2 M	3	stranded hook-up wire	0.22 mm ²	
11291	RKMF 3/0.5 M	3	stranded hook-up wire	0.22 mm ²	
109235	RKMF 3/2 M	3	stranded hook-up wire	0.22 mm ²	
13131	RKMF 4/0.2 M	4	stranded hook-up wire	0.22 mm ²	
11292	RKMF 4/0.5 M	4	stranded hook-up wire	0.22 mm ²	
55535	RKMF 4/1 M	4	stranded hook-up wire	0.22 mm ²	
4374	RKMF 4/2 M	4	stranded hook-up wire	0.22 mm ²	
48977	RKMHL 3/S 5.5	3	solder	–	
48978	RKMHL 4/S 5.5	4	solder	–	

Conversion table mm² to AWG on page 20.

M8 Receptacle Connectors for Actuators and Sensors – Male




Technical Information

Product Description		
Order Designation	RSMF	RSMHL .../S 5.5
		
Description	Receptacle connector, M8 female, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, M8 x 0.5 screw coupling at rear chassis side	Receptacle connector, M8 male connector for rear panel mounting, PCB contacts, M10 x 1 screw coupling at front chassis side, 3 and 4-pin
Note	Mounting using RSKF 8	Mounting nut included
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C	-40 °C to +80 °C
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	3-pin 50 V AC/60 V DC, 4 and 8-pin 30 V AC/DC	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	3 and 4-pin 4 A, 8-pin 1.5 A	4 A
Pollution Degree	3	
Technical Drawing		















RSMF .../0.5 M: *a = O-ring • *b = Terminal area potted • *c = Panel cut out • L = Standard length of stranded hook-up wire
 RSMHL .../S 5.5: *a = O-ring • *b = Terminal area potted • *c = Anti-twist protection • *d = Panel cut out for anti-twist protection • *e = Pin layout on printed circuit board

Pin Assignment


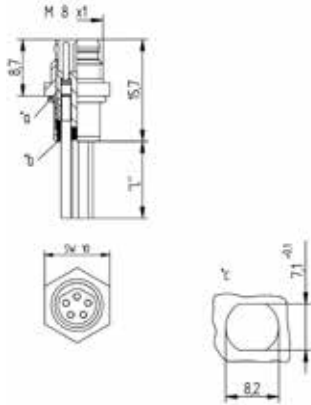
3-pin	4-pin	8-pin
 <ul style="list-style-type: none"> 1 = brown 2 = blue 3 = black 	 <ul style="list-style-type: none"> 1 = brown 2 = white 3 = blue 4 = black 	 <ul style="list-style-type: none"> 1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
3560	RSMF 3/0.15 M	3	stranded hook-up wire 0.50 m	0.22 mm ²	
14295	RSMF 3/0.2 M	3	stranded hook-up wire 0.50 m	0.22 mm ²	
11672	RSMF 3/0.5 M	3	stranded hook-up wire 0.50 m	0.22 mm ²	
3105	RSMF 3/0.6 M	3	stranded hook-up wire 0.50 m	0.22 mm ²	
2364	RSMF 3/1.02 M	3	stranded hook-up wire 0.50 m	0.22 mm ²	
3312	RSMF 3/1.07 M	3	stranded hook-up wire 0.50 m	0.22 mm ²	
42466	RSMF 4/0.1 M	4	stranded hook-up wire 0.50 m	0.22 mm ²	
14515	RSMF 4/0.2 M	4	stranded hook-up wire 0.50 m	0.22 mm ²	
11673	RSMF 4/0.5 M	4	stranded hook-up wire 0.50 m	0.22 mm ²	
91740	RSMF 8/0.5 M	8	stranded hook-up wire 0.50 m	0.22 mm ²	
46316	RSMHL 3/S 5.5	3	solder	–	
48962	RSMHL 4/S 5.5	4	solder	–	

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Receptacle, Front Mounting – Male**Technical Information**




Product Description	
Order Designation	RSMF 5/0.5 M
	NEW! 
Description	Receptacle connector, M8 male, 5-pole, B-coded, for front mounting, assembled with stranded hook-up wire, conductor terminal area potted, M8 x 0.5 screw coupling at rear chassis side
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Approvals	UL pending
Technical Data	
Ambient Temperature	-40°C to +90 °C
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
O-Ring	FKM
Mechanical Data	
Degree of Protection	IP67 (only when mated and screwed with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Technical Drawing	
	

*a = O-ring • *b = Terminal area potted • *c = Panel cut out • L = Standard length of stranded hook-up wire
Do not connect/disconnect under load.

Pin Assignment**M8, Male, 5-poles**




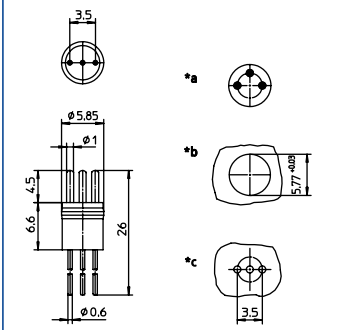
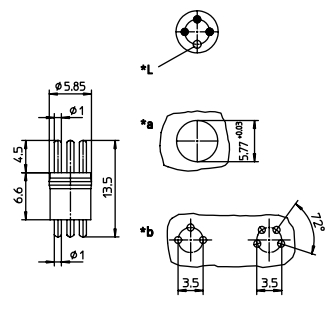
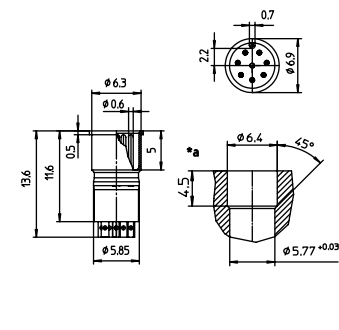
1 = brown
2 = white
3 = blue
4 = black
5 = gray

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
934950001	RSMF 5/0.5 M	5	stranded hook-up wire 0.50 m	AWG 22	  

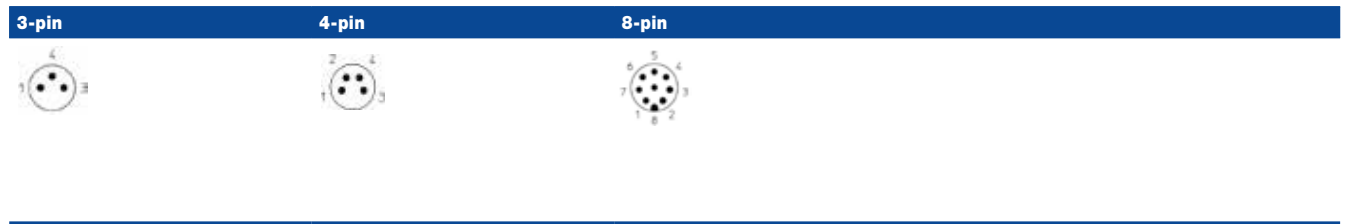
M8 Receptacle Connectors for Actuators and Sensors – Male

Technical Information





Product Description			
Order Designation	RSME	RSMEK	RSEM
			
Description	Receptacle connector, M8 male for sensors with solid long termination contacts, 3-pin	Receptacle connector, M8 male for sensors with solid short termination contacts RSMEK 3 L: with ventilation hole 1.1 mm diameter, 3-pin RSMEK 4: without ventilation hole, 4-pin	Receptacle connector, M8 male connector for sensors with solid long termination solder contacts, and a round protective collar, 8-pin
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-104		IEC 61076-2-104 (in preparation)
Approvals	-		
Technical Data			
Ambient Temperature	-25 °C to +80 °C		
Housing Material/Grip	No housing		
Contact Holder Material	PA		
Contact Material/Surface Finish	CuZn, gold over nickel plating		
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC	3-pin 50 V AC/60 V DC, 4 and 8-pin 30 V AC/DC	
Rated Current	4 A		1.5 A
Pollution Degree	3		
Technical Drawing			
			

RSME: *a = Plug side • *b = Panel cut out • *c = Pin layout on printed circuit board
 RSMEK: *a = Panel cut out • *b = Pin layout on printed circuit board • *L = Ventilation hole Ø 1.1 mm
 RSEM: *a = Panel cut out

Pin Assignment




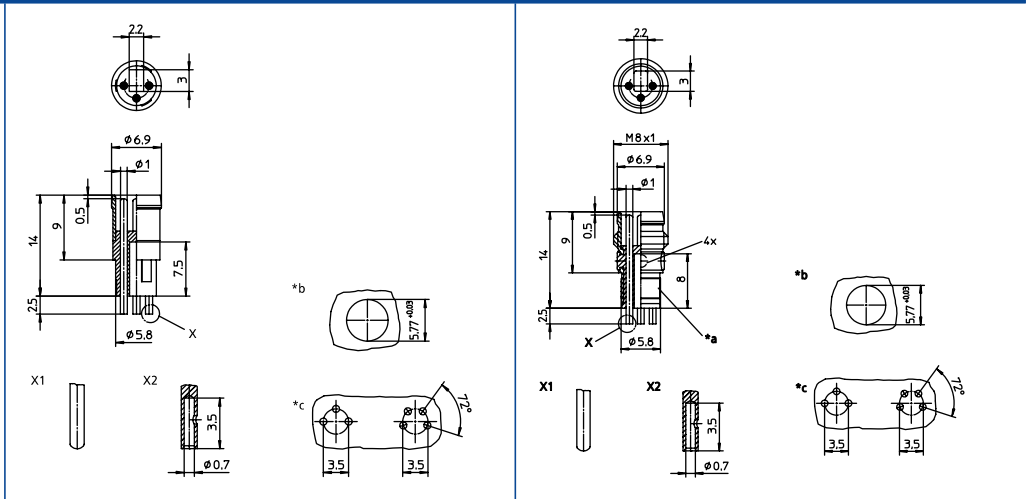
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Characteristics
11654	RSME 3	3	solder	
11668	RSMEK 3 L	3	solder	
11669	RSMEK 4	4	solder	
91607	RSEM 8	8	solder	

M8 Receptacle Connectors for Actuators and Sensors – Male












Technical Information

Product Description	
Order Designation	RSMEJ RSMEH
	
Description	Receptacle connector, M8 male for sensors, with bright snap-in coupling, short solder termination contacts, 3 and 4-pin RSMEJ: hollow solder contacts RSMEH: solid solder contacts
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Approvals	–
Technical Data	
Ambient Temperature	-25 °C to +80 °C
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn, gold over nickel plating
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	



*X1 = Solid • *X2 = Hollow • *b = Panel cut out • *c = Pin layout on printed circuit board



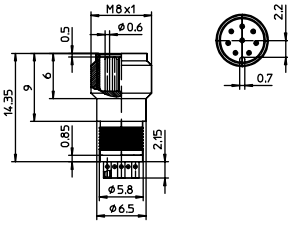
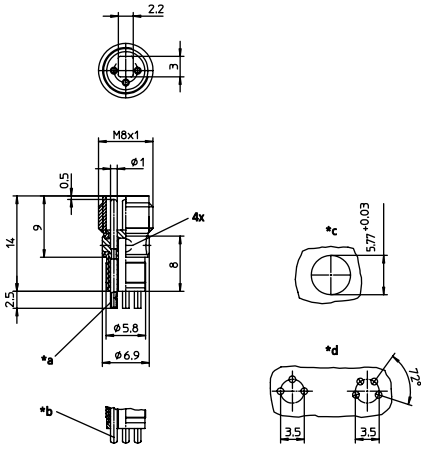
Pin Assignment**3-pin****4-pin****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
11665	RSMEJ 3	3	solder	max. 0.25 mm ²	
11663	RSMEH 3	3	solder	max. 0.25 mm ²	
11664	RSMEH 4	4	solder	max. 0.25 mm ²	
11657	RSMED 3	3	solder	max. 0.25 mm ²	 
11658	RSMED 4	4	solder	max. 0.25 mm ²	 
11655	RSMEB 3	3	solder	max. 0.25 mm ²	 
11656	RSMEB 4	4	solder	max. 0.25 mm ²	 

Conversion table mm² to AWG on page 20.




M8 Receptacle Connectors for Actuators and Sensors – Male

Technical Information






Product Description		
Order Designation	RSMEDG	RSMEDGN RSMEBGN
		
Description	Receptacle connector, M8 male for sensors, with combination snap/screw-type coupling, mounting hole for LED, short hollow termination contacts, 8-pin	Receptacle connector, M8 male for sensors with stainless steel housing, screw-type coupling, 4 light indicator windows, installation hole for LED, short terminal contacts, 3 and 4-pin RSMEDGN = hollow contacts on solder side RSMEBGN = solid contacts on solder side
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-104 (in preparation)	IEC 61076-2-104
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C	-25 °C to +90 °C
Housing Material/Grip	CuZn, nickel-plated	Stainless steel
Contact Holder Material	PA	
Contact Material/Surface Finish	CuZn, gold over nickel plating	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	IP67/IP69K (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	30 V AC/DC	3-pin 50 V AC/60 V DC, 4-pin 30 V AC/DC
Rated Current	1.5 A	4 A
Pollution Degree	3	
Technical Drawing		
		

a* = RSMEBGN = Solid contacts • b = RSMEBGN = Solid contacts • c = Panel cut out • d = Pin layout on printed circuit board

Pin Assignment

3-pin	4-pin	8-pin
		


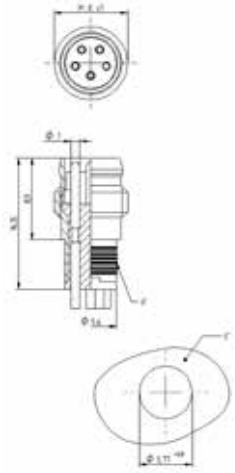
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
88036	RSMEDG 8	8	solder	max. 0.14 mm ²	
58598	RSMEDGN 3	3	solder	max. 0.25 mm ²	
55556	RSMEDGN 4	4	solder	max. 0.25 mm ²	
10056	RSMEBGN 3	3	solder	max. 0.25 mm ²	
10057	RSMEBGN 4	4	solder	max. 0.25 mm ²	

Conversion table mm² to AWG on page 20.

M8 5-Pole, B-coding Receptacle for Sensors – Male with Snap/Screw Type Coupling

Technical Information

Product Description	
Order Designation	RSMED 5B
	NEW! 
Description	Receptacle connector, M8, 5 -pole, B-coded, male connector sensors, with combination snap/screw-type coupling
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Technical Data	
Ambient Temperature	-40°C to +90°C
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PA
Contact Material/Surface Finish	CuZn/Au
Mechanical Data	
Degree of Protection	IP 65 (only when mated with Hirschmann/Lumberg counterparts) IP 67 (only when mated and screwed with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A
Pollution Degree	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Technical Drawing	
	

a* = Groove Contour • *c = Panel cut out

Pin Assignment**M8, Male, 5-poles**


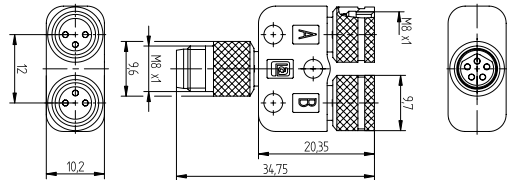
- 1 = brown
- 2 = white
- 3 = blue
- 4 = black
- 5 = gray

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
934965001	RSMED 5B	5	Solder	0.25 mm ²	  

M8 T-Splitter

Technical Information

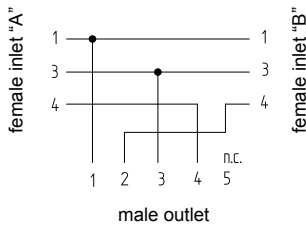
Product Description	
Order Designation	ASBS 2 M8
	NEW! 
Description	T-splitter, M8 5 pin male (outlet) and two M8 3 pin female (inlets) connectors, with knurled nuts and vibration proof connections
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-104
Technical Data	
Ambient Temperature	-40°C to +90°C
Housing Material/Body	TPU
Contact Holder Material	TPU/PA
Contact Material/Surface Finish	CuZn/Au
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	30 V AC/DC
Rated Current	3 A
Pollution Degree	3
Technical Drawing	
	ASBSM 2 M8 503 

Pin Assignment

ASBSM 2 M8 503
<p>A / B</p> 

Circuit Diagram

ASBSM 2 M8 503



Order Information

Order No.	Order Designation	No. of Pins	Characteristics
934863001	ASBSM 2 M8 5-3	3 (inlets)5 (outlet)	  



M23 Circular Connectors



Be certain. Belden.

M23 Circular Connectors

The powerful M23 connectors from Lumberg Automation make it safe and easy to connect actuator/sensor and fieldbus modules. The product range includes field attachable connectors and overmolded cordsets for data transmission or power supplies.

Product Features

- Robust and powerful connectors for signal data and power transmission
- Shielded and unshielded versions
- Cordsets with TPU body or all metal construction
- 6, 9, 12, and 19-pin versions
- IP67 protection

Benefits

- A wide range of versions available for flexible connection solutions
- Protected against dust and moisture as well as shock and vibration
- Long service life due to robust design: Even under extreme environmental conditions, connectors are reliable with a long lifespan
- Time and cost savings through lower installation/maintenance and simplified assembly
- Safe and secure transmission of analog data through optimized and shielded connections



Applications

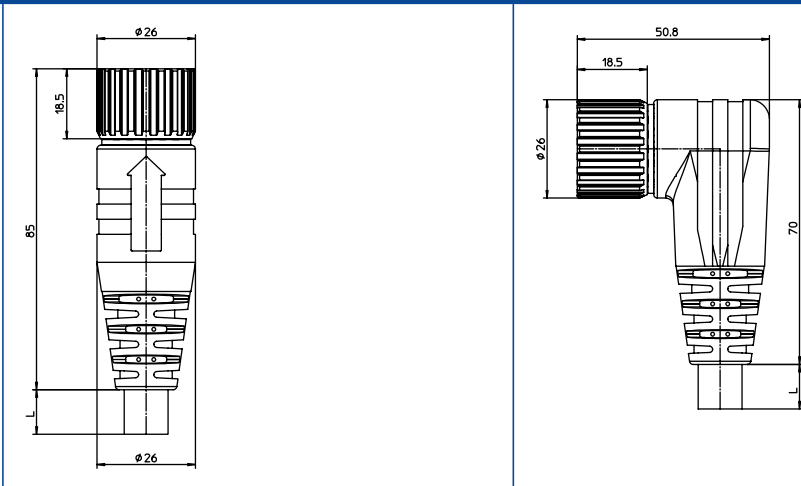
By virtue of their robust features these connectors are ideal for applications in harsh industrial environments.

- Connected to pumps, motors, lamps, valves, and sensors and everywhere in industrial automation applications
- Use as data connectors and power supply for PROFIBUS and INTERBUS applications as well as home run cables for passive plug-in actuator/sensor distribution units

Single-ended Overmolded M23 – Female Cordsets



Technical Information

Product Description		
Order Designation	RKU(E)	RKWU(E)
		
Description	Single-ended Cordset, M23 female with screw coupling (RKUE: grounded) overmolded cable, 12 and 19-pin	Single-ended Cordset, M23 female, angled design, with screw coupling (RKWUE: grounded) overmolded cable, 12 and 19-pin
Note	For connection of plug-in actuator/sensor boxes	For connection of plug-in actuator/sensor boxes
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	12-pin: 120 V AC/DC, 19-pin: 120 V AC/DC	
Rated Current	12-pin 8 A, 19-pin 8 A (pin Ø 1 mm) and 10 A (pin Ø 1.5 mm)	
Pollution Degree	3	
Technical Drawing		



L = Standard length of cable

Pin Assignment



12-pin	19-pin
 <ul style="list-style-type: none"> 1 = white 2 = green 3 = yellow 4 = gray 5 = gray/pink 6 = red/blue 7 = white/green 8 = brown/green 9 = blue 10 = blue 11 = brown 12 = yellow/green 	 <ul style="list-style-type: none"> 1 = violet 2 = red 3 = gray 4 = red/blue 5 = green 6 = blue 7 = gray/pink 8 = white/green 9 = white/yellow 10 = white/gray 11 = black 12 = yellow/green 13 = yellow/brown 14 = brown/green 15 = white 16 = yellow 17 = pink 18 = gray/brown 19 = brown

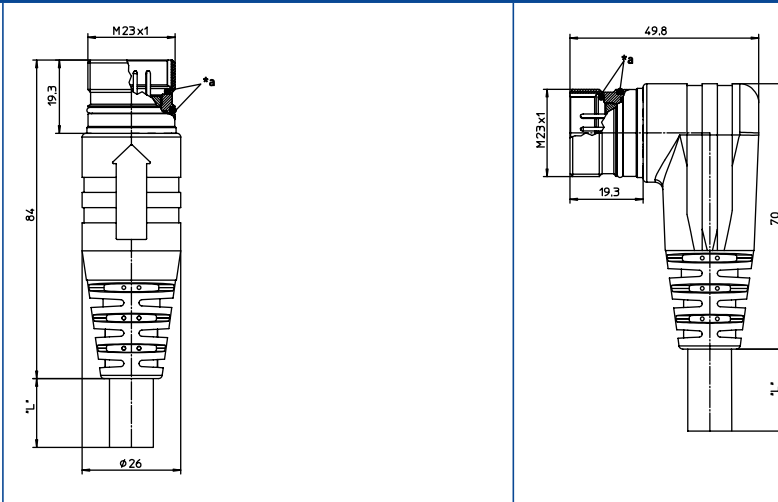
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
60682	RKU 12-256/5 M	12	PUR, halogen-free, black	
60676	RKU 12-256/10 M	12	PUR, halogen-free, black	
60677	RKU 12-256/15 M	12	PUR, halogen-free, black	
60679	RKU 12-256/20 M	12	PUR, halogen-free, black	
60688	RKU 19-242/5 M	19	PUR, halogen-free, black	
60684	RKU 19-242/10 M	19	PUR, halogen-free, black	
60685	RKU 19-242/15 M	19	PUR, halogen-free, black	
60686	RKU 19-242/20 M	19	PUR, halogen-free, black	
60710	RKUE 19-242/5 M	19	PUR, halogen-free, black	
60707	RKUE 19-242/10 M	19	PUR, halogen-free, black	
60708	RKUE 19-242/15 M	19	PUR, halogen-free, black	
60709	RKUE 19-242/20 M	19	PUR, halogen-free, black	
60692	RKWU 12-256/5 M	12	PUR, halogen-free, black	
60689	RKWU 12-256/10 M	12	PUR, halogen-free, black	
27345	RKWU 12-256/15 M	12	PUR, halogen-free, black	
60691	RKWU 12-256/20 M	12	PUR, halogen-free, black	
60706	RKWU 19-242/5 M	19	PUR, halogen-free, black	
60693	RKWU 19-242/10 M	19	PUR, halogen-free, black	
60694	RKWU 19-242/15 M	19	PUR, halogen-free, black	
60695	RKWU 19-242/20 M	19	PUR, halogen-free, black	
60715	RKWUE 19-242/5 M	19	PUR, halogen-free, black	
60711	RKWUE 19-242/10 M	19	PUR, halogen-free, black	
60712	RKWUE 19-242/15 M	19	PUR, halogen-free, black	
60713	RKWUE 19-242/20 M	19	PUR, halogen-free, black	

Single-ended Overmolded M23 – Male Cordsets



Technical Information

Product Description		
Order Designation	RSUF	RSWUF
		
Description	Single-ended Cordset, M23 male with screw coupling, external thread, and overmolded cable, 12 and 19-pin	Single-ended Cordset, M23 male connector, angled design, with screw coupling, external thread, and overmolded cable, 12 and 19-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	12-pin: 120 V AC/DC, 19-pin: 120 V AC/DC	
Rated Current	12-pin 8 A, 19-pin 8 A (pin Ø 1 mm) and 10 A (pin Ø 1.5 mm)	
Pollution Degree	3	
Technical Drawing		



*a = O-ring • L = Standard length of cable

Pin Assignment


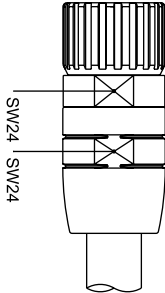
12-pin	19-pin
 <ul style="list-style-type: none"> 1 = white 2 = green 3 = yellow 4 = gray 5 = gray/pink 6 = red/blue 7 = white/green 8 = brown/green 9 = blue 10 = blue 11 = brown 12 = yellow/green 	 <ul style="list-style-type: none"> 1 = violet 2 = red 3 = gray 4 = red/blue 5 = green 6 = blue 7 = gray/pink 8 = white/green 9 = white/yellow 10 = white/gray 11 = black 12 = yellow/green 13 = yellow/brown 14 = brown/green 15 = white 16 = yellow 17 = pink 18 = gray/brown 19 = brown

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
62137	RSUF 12-256/5 M	12	PUR, halogen-free, black	
62138	RSUF 12-256/10 M	12	PUR, halogen-free, black	
62139	RSUF 12-256/15 M	12	PUR, halogen-free, black	
63297	RSUF 12-256/20 M	12	PUR, halogen-free, black	
62140	RSUF 19-242/5 M	19	PUR, halogen-free, black	
62141	RSUF 19-242/10 M	19	PUR, halogen-free, black	
62142	RSUF 19-242/15 M	19	PUR, halogen-free, black	
63299	RSUF 19-242/20 M	19	PUR, halogen-free, black	
63564	RSWUF 12-256/5 M	12	PUR, halogen-free, black	
63565	RSWUF 12-256/10 M	12	PUR, halogen-free, black	
63586	RSWUF 12-256/15 M	12	PUR, halogen-free, black	
63298	RSWUF 12-256/20 M	12	PUR, halogen-free, black	
63587	RSWUF 19-242/5 M	19	PUR, halogen-free, black	
63588	RSWUF 19-242/10 M	19	PUR, halogen-free, black	
63589	RSWUF 19-242/15 M	19	PUR, halogen-free, black	
1502	RSWUF 19-242/20 M	19	PUR, halogen-free, black	

Single-ended Pre-assembled M23 Data Cordsets – PROFIBUS Male

Technical Information
















Product Description	
Order Designation	0975 202 202
	
Description	Single-ended Cordset, PROFIBUS combination cable, pre-assembled on one end with M23 male connector, straight, 12-pin
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	–
Approvals	–
Technical Data	
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	PBT
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	$\leq 3 \text{ m}\Omega$
Operating Voltage	50 V AC/60 V DC
Rated Current	8 A
Pollution Degree	3
Technical Drawing	
	

All technical information refers only to the connector.

Pin Assignment**12-pin**



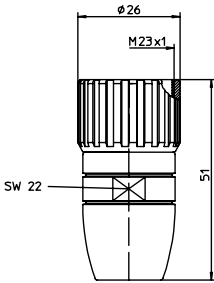
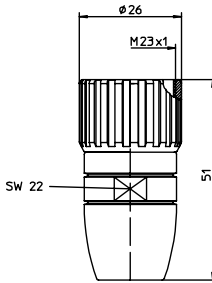
1 = n.c.	7 = +24 V, black
2 = Line A, green	8 = GND (0 V), blue
3 = n.c.	9 = Earth, green/yellow
4 = Line B, red	10 = n.c.
5 = n.c.	11 = n.c.
6 = n.c.	12 = n.c.

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10054	0975 202 202/1 M	12	PUR, violet	  
10055	0975 202 202/3 M	12	PUR, violet	  
934636366	0975 202 202/5 M	12	PUR, violet	  
289	0975 202 202/10 M	12	PUR, violet	  
6043	0975 202 202/15 M	12	PUR, violet	  


Single-ended Pre-assembled M23 Data Cordsets – INTERBUS® Female

Technical Information





















Product Description		
Order Designation	0955 283 203	0955 284 203
		
Description	Single ended Cordset, INTERBUS® installation remote bus cable, preassembled on one end with M23 female connector, straight, 9-pin	Cordset, INTERBUS® remote bus cable, pre-assembled on one end with M23 female connector, straight, 9-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 3 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	8 x 8 A, 1 x 20 A	
Pollution Degree	3	
Technical Drawing		
		

All technical information refers only to the connector.

Pin Assignment



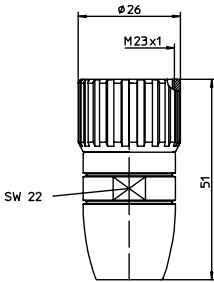
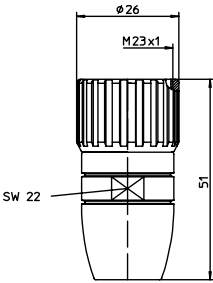
9-pin				
	0955 283 203 1 = D0, yellow 2 = D0, green 3 = DI, gray 4 = Dī, pink 5 = COM, brown 6 = Earth, green/yellow (1 mm ²) 7 = +24 V, red (1 mm ²) 8 = GND (0 V), blue (1 mm ²) 9 = RBST Housing = Shield		0955 284 203 1 = D0, yellow 2 = D0, green 3 = DI, gray 4 = Dī, pink 5 = COM, brown 6 = n.c. 7 = n.c. 8 = n.c. 9 = RBST Housing = Shield	

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10060	0955 283 203/0.3 M	9	PUR, halogen-free, violet	
10062	0955 283 203/0.6 M	9	PUR, halogen-free, violet	
934636483	0955 283 203/1 M	9	PUR, halogen-free, violet	
10063	0955 283 203/2 M	9	PUR, halogen-free, violet	
934636509	0955 283 203/3 M	9	PUR, halogen-free, violet	
934636879	0955 283 203/5 M	9	PUR, halogen-free, violet	
934636220	0955 283 203/10 M	9	PUR, halogen-free, violet	
7053	0955 283 203/15 M	9	PUR, halogen-free, violet	
10064	0955 283 203/20 M	9	PUR, halogen-free, violet	
7329	0955 283 203/25 M	9	PUR, halogen-free, violet	
11153	0955 284 203/0.3 M	9	PUR, halogen-free, violet	
11152	0955 284 203/0.6 M	9	PUR, halogen-free, violet	
11151	0955 284 203/1 M	9	PUR, halogen-free, violet	
11150	0955 284 203/2 M	9	PUR, halogen-free, violet	
593	0955 284 203/3 M	9	PUR, halogen-free, violet	
11149	0955 284 203/5 M	9	PUR, halogen-free, violet	
204	0955 284 203/10 M	9	PUR, halogen-free, violet	
205	0955 284 203/15 M	9	PUR, halogen-free, violet	
1960	0955 284 203/20 M	9	PUR, halogen-free, violet	
11148	0955 284 203/25 M	9	PUR, halogen-free, violet	


Single-ended Pre-assembled M23 Data Cordsets – Male INTERBUS®

Technical Information



















Product Description		
Order Designation	0955 283 202	0955 284 202
		
Description	Single-ended Cordset, INTERBUS® installation remote bus cable, pre-assembled on one end with M23 male connector, straight, 9-pin	Single-ended Cordset, INTERBUS® remote bus cable, preassembled on one end with M23 male connector, straight, 9-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +125 °C, mind cable temperature range	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 3 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	8 x 8 A, 1 x 20 A	
Pollution Degree	2	
Technical Drawing		
		

All technical information refers only to the connector.

Pin Assignment




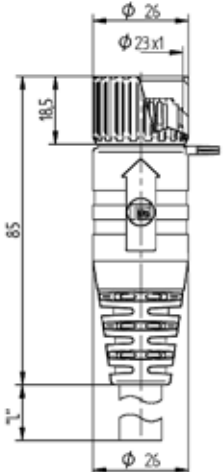
9-pin			
	0955 283 202 1 = D0, yellow 2 = D0, green 3 = DI, gray 4 = DI, pink 5 = COM, brown 6 = Earth, green/yellow (1 mm ²) 7 = +24 V, red (1 mm ²) 8 = GND (0 V), blue (1 mm ²) 9 = RBST	0955 284 202 1 = D0, yellow 2 = D0, green 3 = DI, gray 4 = DI, pink 5 = COM, brown 6 = n.c. 7 = n.c. 8 = n.c. 9 = RBST	Housing = Shield
	Housing = Shield	Housing = Shield	Housing = Shield

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10089	0955 283 202/0.3 M	9	PUR, halogen-free, violet	
10090	0955 283 202/0.6 M	9	PUR, halogen-free, violet	
10091	0955 283 202/1 M	9	PUR, halogen-free, violet	
10093	0955 283 202/2 M	9	PUR, halogen-free, violet	
934636510	0955 283 202/3 M	9	PUR, halogen-free, violet	
934636878	0955 283 202/5 M	9	PUR, halogen-free, violet	
77	0955 283 202/10 M	9	PUR, halogen-free, violet	
10094	0955 283 202/15 M	9	PUR, halogen-free, violet	
10096	0955 283 202/20 M	9	PUR, halogen-free, violet	
10097	0955 283 202/25 M	9	PUR, halogen-free, violet	
10065	0955 284 202/0.3 M	9	PUR, halogen-free, violet	
10067	0955 284 202/0.6 M	9	PUR, halogen-free, violet	
10068	0955 284 202/1 M	9	PUR, halogen-free, violet	
10069	0955 284 202/2 M	9	PUR, halogen-free, violet	
591	0955 284 202/3 M	9	PUR, halogen-free, violet	
10070	0955 284 202/5 M	9	PUR, halogen-free, violet	
201	0955 284 202/10 M	9	PUR, halogen-free, violet	
202	0955 284 202/15 M	9	PUR, halogen-free, violet	
10107	0955 284 202/20 M	9	PUR, halogen-free, violet	
10071	0955 284 202/25 M	9	PUR, halogen-free, violet	

Single-ended Cordsets Overmolded M23 Data Voltage Supply Cordsets – Female PROFIBUS and INTERBUS®

Technical Information

Product Description			
Order Designation	RKU E 6-203	RKU A 6-203	RKU 6-204
			
Description	Cordset for single voltage supply to PROFIBUS input modules (0970 PSL 1xx), system/sensors, single-ended overmolded with M23 female connector, straight, 6-pin (pins 1, 4, 5 assigned)	Cordset for single voltage supply to PROFIBUS output/mixed modules (0970 PSL 2xx) and INTERBUS® installation remote bus modules, single-ended overmolded with M23 female connector, straight, 6-pin (pins 1, 2, 3 assigned)	Cordset for dual voltage supply to PROFIBUS and INTERBUS® modules, single-ended overmolded with M23 female connector, straight, 6-pin
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	–		
Approvals	–		
Technical Data			
Ambient Temperature	-25 °C to +80 °C, mind cable temperature range		
Housing Material/Grip	TPU, self-extinguishing		
Contact Holder Material	PBT		
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated		
Screw Coupling Material	CuZn, nickel-plated		
Mechanical Data			
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC		
Rated Current	20 A		
Pollution Degree	3		
Technical Drawing			
			

L = Standard length of cable

Pin Assignment

6-pin



RKU E 6-203
 1 = green/yellow
 2 = n.c.
 3 = n.c.
 4 = black 1
 5 = black 2
 6 = n.c.

RKU A 6-203
 1 = green/yellow
 2 = black 1
 3 = black 2
 4 = n.c.
 5 = n.c.
 6 = n.c.



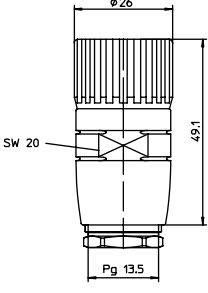
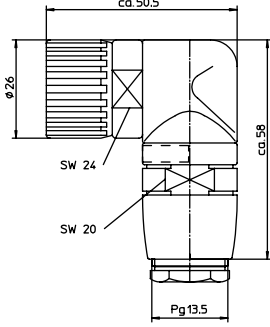
RKU 6-204
 1 = green/yellow
 2 = black 1
 3 = black 2
 4 = black 3
 5 = black 4
 6 = n.c.

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
46783	RKU E 6-203/5 M	6	PUR, halogen-free, black	
50962	RKU E 6-203/10 M	6	PUR, halogen-free, black	
64776	RKU E 6-203/15 M	6	PUR, halogen-free, black	
46782	RKU A 6-203/5 M	6	PUR, halogen-free, black	
49299	RKU A 6-203/10 M	6	PUR, halogen-free, black	
57246	RKU A 6-203/15 M	6	PUR, halogen-free, black	
46687	RKU 6-204/5 M	6	PUR, halogen-free, black	
47948	RKU 6-204/10 M	6	PUR, halogen-free, black	
47949	RKU 6-204/15 M	6	PUR, halogen-free, black	

Field Attachable M23 Connectors – Female









Technical Information

Product Description		
Order Designation	RKC .../13.5	RKCW .../13.5
		
Description	Field attachable connector, M23 female with screw coupling, assembly using solder terminals, 12 and 19-pin	Field attachable connector, M23 female connector, angled design, with screw coupling, assembly using solder terminals, 12 and 19-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +125 °C	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	12-pin: 120 V AC/DC, 19-pin: 120 V AC/DC	
Rated Current	12 and 19-pin 7.5 A (pin Ø 1 mm) and 10 A (pin Ø 1.5 mm)	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment

12-pin	19-pin
	



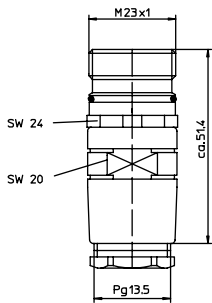
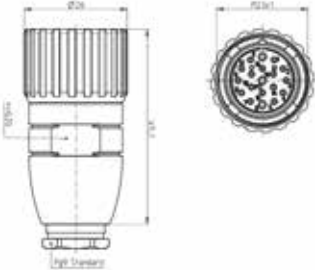
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
2054	RKC 120/13.5	12	solder	12 x max. 1 mm ²	Ø 10.0 to 14.0 mm, PG 13.5	 
2135	RKC 190/13.5	19	solder	16 x max. 1 mm ² , 3 x 1.5 mm ²	Ø 10.0 to 14.0 mm, PG 13.5	 
2072	RKCW 120/13.5	12	solder	12 x max. 1 mm ²	Ø 10.0 to 14.0 mm, PG 13.5	 
2207	RKCW 190/13.5	19	solder	16 x max. 1 mm ² , 3 x 1.5 mm ²	Ø 10.0 to 14.0 mm, PG 13.5	 

Conversion table mm² to AWG on page 20.

Field Attachable M23 Connectors – Male





Technical Information

Product Description		
Order Designation	RSC-F-120/13.5	RSC 190/9
		
Description	Field attachable connector, M23 male with screw coupling, external thread, assembly using solder terminals, 12-pin	Field attachable connector, M23 male with screw coupling, assembly using solder terminals, 19-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +70 °C	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	12-pin: 120 V AC/DC, 19-pin: 120 V AC/DC	
Rated Current	8 A	16 x 8 A, 3 x 10 A
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment





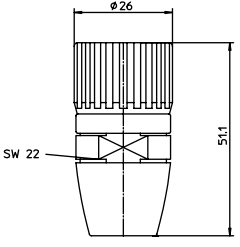
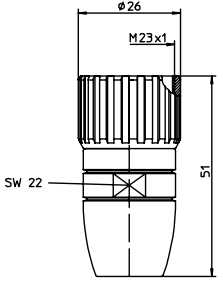
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
7188	RSC-F-120/13.5	12	solder	12 x max. 1 mm ²	Ø 10.0 to 14.0 mm, PG 13.5	 
53647	RSC 190/9	19	solder	16 x max. 1 mm ² , 3 x 1.5 mm ²	Ø 6.0 to 10.0 mm, PG 9	 

Conversion table mm² to AWG on page 20.

Field Attachable M23 Data Connectors – Female PROFIBUS/INTERBUS®








Technical Information

Product Description		
Order Designation	0906 UFC 201 0906 UFC 202	0956 IFC 201
		
Description	Field attachable connector, M23 female with screw coupling, 6-pin 0906 UFC 201: assembly using solder terminals 0906 UFC 202: assembly using screw-type terminals	Field attachable connector, M23 female with screw coupling, 9-pin, assembly using solder terminals
Note	Especially suitable for PROFIBUS and INTERBUS® voltage supply.	Especially suitable for INTERBUS® installation and remote bus cables.
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +125 °C	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 3 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	20 A	8 x 8 A, 1 x 20 A
Pollution Degree	2 (3 as per DIN EN 61984-2001)	
Technical Drawing		
		

Pin Assignment



Order Information








Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
6879	0906 UFC 201	6	solder	max. 2.5 mm ²	max. Ø 10.5 mm	 
53615	0906 UFC 202	6	screw	max. 1.5 mm ²	max. Ø 10.5 mm	 
2125	0956 IFC 201	9	solder	8 x max. 1.0 mm ² , 1 x max. 2.5 mm ²	max. Ø 10.5 mm	  

Conversion table mm² to AWG on page 20.

Pin Assignment





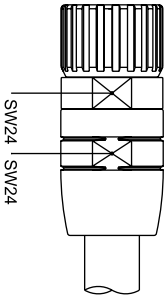
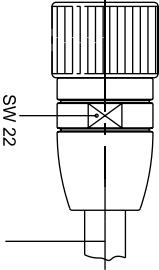
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
2299	0906 UMC 201	6	solder	max. 2.5 mm ²	max. Ø 10.5 mm	 
53646	0906 UMC 202	6	screw	max. 1.5 mm ²	max. Ø 10.5 mm	 
2124	0956 IMC 201	9	solder	8 x max. 1.0 mm ² , 1 x max. 2.5 mm ²	max. Ø 10.5 mm	  







Conversion table mm² to AWG on page 20.

Field Attachable M23 Data Connectors – Male PROFIBUS

Technical Information

Product Description		
Order Designation	0976 PMC 201	0976 PMC 202
		
Description	Field attachable connector, M23 male connector with screw coupling, 12-pin, assembly using solder terminals	Field attachable connector, M23 male connector with screw coupling, 12-pin, assembly using solder terminals
Note	Especially suitable for PROFIBUS combination cable 0975 202 000/... M.	Especially suitable for PROFIBUS signal cable 0975 254 000/... M.
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +125 °C	
Housing Material/Grip	CuZn, nickel-plated	
Contact Holder Material	PBT	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 3 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	8 A	
Pollution Degree	3	
Technical Drawing		
		

Pin Assignment**12-pin****Order Information**

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
7844	0976 PMC 201	12	solder	max. 0.75 mm ²	max. Ø 14.5 mm	  
2284	0976 PMC 202	12	solder	max. 1.0 mm ²	max. Ø 10.5 mm	  

Conversion table mm² to AWG on page 20.



7/8" Circular Connectors



Be certain. Belden.

Extremely Robust and Reliable

Lumberg Automation 7/8" connectors feature very high mechanical and electrical durability and leak-tightness up to 10 bar. Thanks to overmolding with special PUR, moisture cannot enter the connectors even with temperature fluctuation.

Product Features

- Robust power connectors
- Also be used as communications connectors for DeviceNet™ applications
- 2, 3, 4, and 5-pin contact versions
- Version suitable for up to 100 m deep water (10 bar, 2 h)
- IP67 and IP68 protection

Benefits

- A wide range of versions available for flexible connection solutions
- Long service life thanks to robust design: Even under extreme environmental conditions, connectors are reliable with a long lifespan
- Time and cost savings through lower installation and maintenance timescales (screw/unscrew or connect/disconnect)
- Increased personal safety as per DIN EN 61984 thanks to touch-protected plug-in system



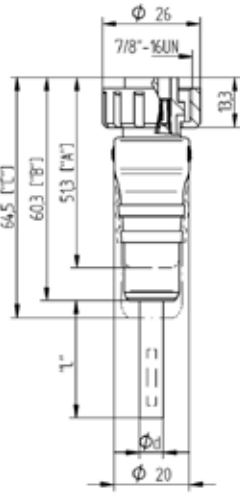
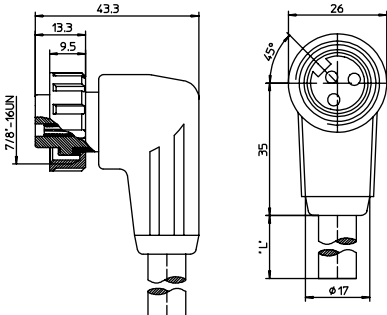
Applications

Because of the robust features and ease of handling these connectors are ideally suited for use in tough industrial environments. Typically used with pumps, motors, lamps, valves, and sensors for example in the following applications:

- Mining
- Vehicle technology
- Mechanical engineering
- Underwater technology
- In modern field bus systems such as EtherNet/IP, PROFINET, DeviceNet™, or PROFIBUS, 7/8" connectors and cables are used for power supply and signal transmission





Single-ended Overmolded 7/8" Connectors for Actuators and Sensors – Female Connectors

Technical Information

















































Product Description		
Order Designation	RK...	RKW...
		
Description	Actuator/sensor cordset, 7/8" female connector, straight, with self-locking screw coupling and overmolded cable, 2 to 5-pin	Actuator/sensor cordset, 7/8" female connector, angled, with self-locking screw coupling and overmolded cable, 2 to 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	–
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (UL to +50 °C), mind cable temperature range	
Housing Material/Grip	TPU, self-extinguishing	
Contact Holder Material	TPU, self-extinguishing	
Contact Material/Surface Finish	CuZn, pre-silver and gold-plated	
Screw Coupling Material	PA	
Mechanical Data		
Degree of Protection	IP68 (2 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	2-pin 12 A, 3-pin 8 A (UL); 4 to 5-pin 5.6 A (AWG 18); 4 to 5-pin 8 A (AWG 16)	
Pollution Degree	3	
Technical Drawing		
		

A = ≤ Ø d 5.0 mm • B = > Ø d 5.0 mm to ≤ Ø d 10.5 mm • C = > Ø d 10.5 mm

Pin Assignment



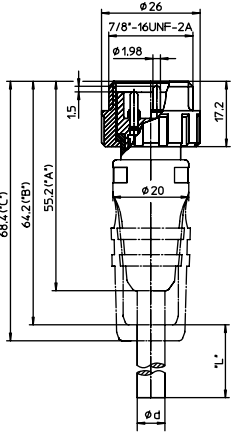
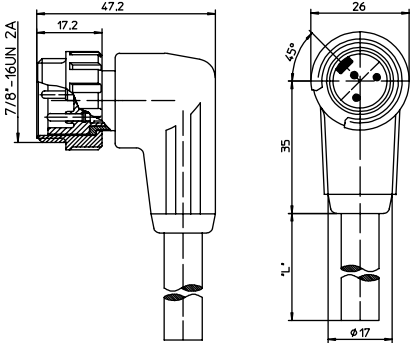
2-pin	3-pin
 <p>1 = brown 2 = blue</p>	 <p>1 = brown 2 = green/yellow 3 = blue</p>
4-pin	5-pin
 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = black 2 = blue 3 = green/yellow 4 = brown 5 = white</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11171	RK 20-03/2 M	2	PVC, orange	  
11172	RK 20-03/5 M	2	PVC, orange	  
11173	RK 30-01/2 M	3	PVC, orange	  
11174	RK 30-01/5 M	3	PVC, orange	  
11177	RK 40-02/2 M	4	PVC, orange	  
11178	RK 40-02/5 M	4	PVC, orange	  
11179	RK 50-04/2 M	5	PVC, orange	  
11180	RK 50-04/5 M	5	PVC, orange	  
11144	RKW 20-03/2 M	2	PVC, orange	  
11143	RKW 20-03/5 M	2	PVC, orange	  
13760	RKW 30-01/2 M	3	PVC, orange	  
13758	RKW 30-01/5 M	3	PVC, orange	  
98579	RKW 40-02/2 M	4	PVC, orange	  
13756	RKW 40-02/5 M	4	PVC, orange	  
13769	RKW 50-04/2 M	5	PVC, orange	  
13765	RKW 50-04/5 M	5	PVC, orange	  





Single-ended Overmolded 7/8" Cordset for Actuators and Sensors – Male

Technical Information

















































Product Description		
Order Designation	RS...	RSW...
		
Description	Actuator/sensor single ended cordset, 7/8" male connector, straight, with self-locking screw coupling and overmolded cable, 2 to 5-pin	Actuator/sensor single ended cordset, 7/8" male connector, angled, with self-locking screw coupling and overmolded cable, 2 to 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	–
Approvals	UL	
Technical Data		
Ambient Temperature	-40 °C to +90 °C (UL to +50 °C), mind cable temperature range	
Housing Material/Grip	TPU, self-extinguishing	
Contact Holder Material	TPU, self-extinguishing	
Contact Material/Surface Finish	CuZn, pre-silver and gold-plated	
Screw Coupling Material	PA	
Mechanical Data		
Degree of Protection	IP68 (2 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	2 to 3-pin 12 A, 4 to 5-pin 8 A (UL); 4 to 5-pin 5.6 A (AWG 18); 4 to 5-pin 8 A (AWG 16)	
Pollution Degree	3	
Technical Drawing		
		

A = ≤ Ø d 5.0 mm • B = > Ø d 5.0 mm to ≤ Ø d 10.5 mm • C = > Ø d 10.5 mm

Pin Assignment



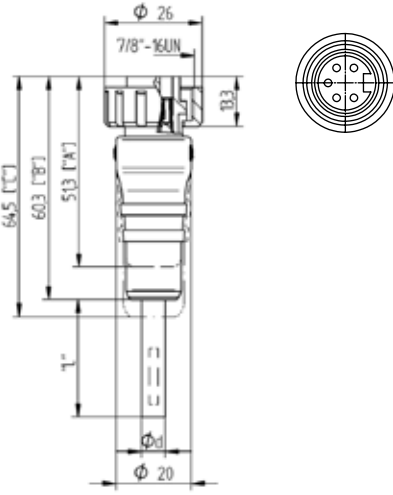
2-pin	3-pin
 <p>1 = brown 2 = blue</p>	 <p>1 = brown 2 = green/yellow 3 = blue</p>
4-pin	5-pin
 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = black 2 = blue 3 = green/yellow 4 = brown 5 = white</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
11566	RS 20-03/2 M	2	PVC, orange	  
11567	RS 20-03/5 M	2	PVC, orange	  
11568	RS 30-01/2 M	3	PVC, orange	  
11569	RS 30-01/5 M	3	PVC, orange	  
11572	RS 40-02/2 M	4	PVC, orange	  
11573	RS 40-02/5 M	4	PVC, orange	  
11574	RS 50-04/2 M	5	PVC, orange	  
11575	RS 50-04/5 M	5	PVC, orange	  
34637	RSW 20-03/2 M	2	PVC, orange	  
98583	RSW 20-03/5 M	2	PVC, orange	  
18231	RSW 30-01/2 M	3	PVC, orange	  
11142	RSW 30-01/5 M	3	PVC, orange	  
15937	RSW 40-02/2 M	4	PVC, orange	  
98578	RSW 40-02/5 M	4	PVC, orange	  
98580	RSW 50-04/2 M	5	PVC, orange	  
98581	RSW 50-04/5 M	5	PVC, orange	  

Single-ended Overmolded 7/8" Data Cordsets – Female CANopen®/DeviceNet™

Technical Information

Product Description		
Order Designation	0935 253 303	0935 613 303
		
Description	Cordset, CANopen®/DeviceNet™ thin cable, single ended overmolded with 7/8" female, straight, 5-pin	Cordset, CANopen®/DeviceNet™ thick cable, single-ended overmolded with 7/8" female connector, straight, 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated	
Screw Coupling Material	PA	Anodized aluminum
Mechanical Data		
Degree of Protection	IP68 (2 hr at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	9 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment**5-pin**



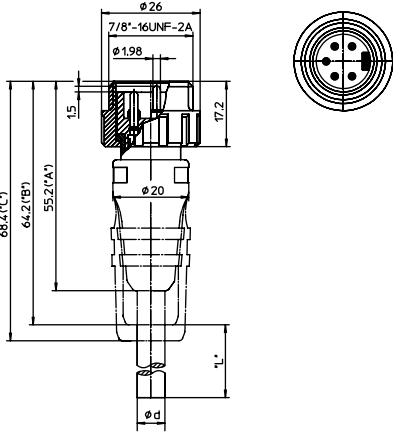
- 1 = Shield
- 2 = +24 V, red
- 3 = GND (0 V), black
- 4 = CAN_H, white
- 5 = CAN_L, blue

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10978	0935 253 303/1 M	5	PUR, halogen-free, black	
10979	0935 253 303/3 M	5	PUR, halogen-free, black	
71251	0935 253 303/5 M	5	PUR, halogen-free, black	
71281	0935 613 303/0.3 M	5	PVC, gray	
9988	0935 613 303/0.6 M	5	PVC, gray	
9989	0935 613 303/1 M	5	PVC, gray	
71282	0935 613 303/2 M	5	PVC, gray	
71283	0935 613 303/3 M	5	PVC, gray	
9990	0935 613 303/5 M	5	PVC, gray	
9991	0935 613 303/10 M	5	PVC, gray	

Single-ended Overmolded 7/8" Data Cordsets – Male CANopen®/DeviceNet™

Technical Information

Product Description		
Order Designation	0935 253 302	0935 613 302
		
Description	Cordset, CANopen®/DeviceNet™ thin cable, single-ended overmolded with 7/8" male connector, straight, 5-pin	Cordset, CANopen®/DeviceNet™ thick cable, single-ended overmolded with 7/8" male connector, straight, 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated	
Screw Coupling Material	PA	Anodized aluminum
Mechanical Data		
Degree of Protection	IP68 (1hr at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	9 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment**5-pin**




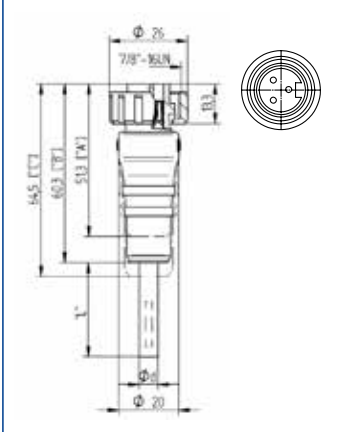
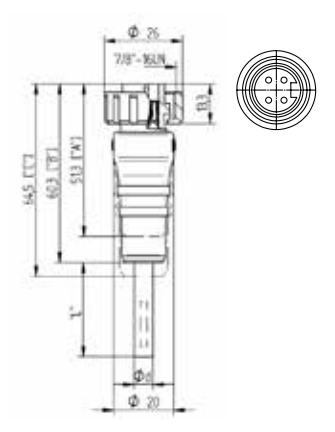
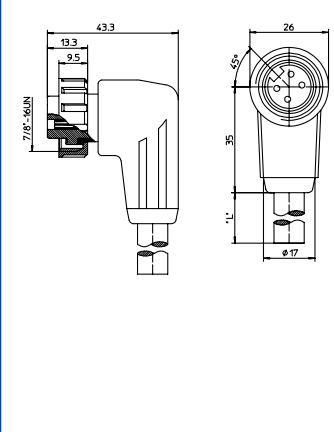
- 1 = Shield
- 2 = +24 V, red
- 3 = GND (0 V), black
- 4 = CAN_H, white
- 5 = CAN_L, blue

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10976	0935 253 302/1 M	5	PUR, halogen-free, black	
10977	0935 253 302/3 M	5	PUR, halogen-free, black	
29881	0935 253 302/5 M	5	PUR, halogen-free, black	
9992	0935 613 302/0.3 M	5	PVC, gray	
9993	0935 613 302/0.6 M	5	PVC, gray	
71275	0935 613 302/1 M	5	PVC, gray	
71277	0935 613 302/3 M	5	PVC, gray	
9994	0935 613 302/5 M	5	PVC, gray	
53655	0935 613 302/6 M	5	PVC, gray	
9995	0935 613 302/10 M	5	PVC, gray	
9996	0935 613 302/15 M	5	PVC, gray	

Single-ended Overmolded 7/8" Power Supply Cordsets – Female CANopen®/DeviceNet™/EtherNet/IP™

Technical Information

































































Product Description			
Order Designation	0905 203 301	0905 356 311	0905 356 304
			
Description	Cordset for single voltage supply to CANopen® and DeviceNet™ I/O modules, single-ended overmolded with 7/8" female connector, straight, 3-pin (1 x 24 V + 1 x 0 V + earth)	Cordset for dual voltage supply to DeviceNet™ and EtherNet/IP I/O modules, single-ended overmolded with 7/8" female connector, straight, 4-pin (2 x 24 V + 1 x 0 V + earth)	Cordset for dual voltage supply to DeviceNet™ and EtherNet/IP I/O modules, single-ended overmolded with 7/8" female connector, angled, 4-pin (2 x 24 V + 1 x 0 V + earth)
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	–		
Approvals	–		
Technical Data			
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range		
Housing Material/Grip	TPU		
Contact Holder Material	TPU		
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated		
Screw Coupling Material	PA		
Mechanical Data			
Degree of Protection	IP68 (2 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	IP68 (1 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	IP68 (2 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	50 V AC/60 V DC		
Rated Current	9 A		
Pollution Degree	3		
Technical Drawing			
			

L = Standard length of cable

Pin Assignment



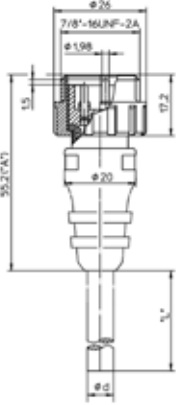
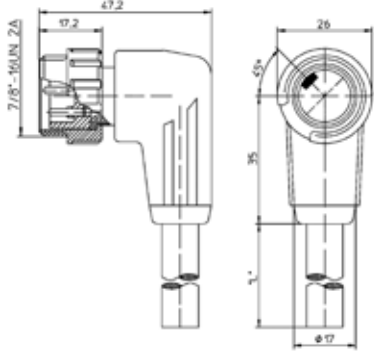
3-pin	4-pin
 <p>1 = green/yellow 2 = 1 3 = 2</p>	 <p>1 = black 1 2 = black 2 3 = green/yellow 4 = black 3</p>

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
13529	0905 203 301/5 M	3	PUR, black	   
27421	0905 203 301/10 M	3	PUR, black	   
71288	0905 203 301/15 M	3	PUR, black	   
9997	0905 203 301/20 M	3	PUR, black	   
9998	0905 203 301/25 M	3	PUR, black	   
9999	0905 356 311/0.3 M	4	PUR, halogen-free, black	   
10000	0905 356 311/0.6 M	4	PUR, halogen-free, black	   
10001	0905 356 311/1 M	4	PUR, halogen-free, black	   
10002	0905 356 311/2 M	4	PUR, halogen-free, black	   
10003	0905 356 311/3 M	4	PUR, halogen-free, black	   
75618	0905 356 311/5 M	4	PUR, halogen-free, black	   
75617	0905 356 311/10 M	4	PUR, halogen-free, black	   
10241	0905 356 311/15 M	4	PUR, halogen-free, black	   
10004	0905 356 311/20 M	4	PUR, halogen-free, black	   
10005	0905 356 311/25 M	4	PUR, halogen-free, black	   
82164	0905 356 304/5 M	4	PUR, halogen-free, black	   

Single-ended Overmolded 7/8" Power Supply Cordsets – Male DeviceNet™/EtherNet/IP™

Technical Information

Product Description		
Order Designation	0905 356 313	0905 356 306
		
Description	Cordset for dual voltage supply to DeviceNet™ and EtherNet/IP I/O modules, single-ended overmolded with 7/8" male connector, straight, 4-pin (2 x 24 V + 1 x 0 V + earth)	Cordset for dual voltage supply to DeviceNet™ and EtherNet/IP I/O modules, single-ended overmolded with 7/8" male connector, angled, 4-pin (2 x 24 V + 1 x 0 V + earth)
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated	
Screw Coupling Material	PA	
Mechanical Data		
Degree of Protection	IP68 (2 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	9 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable • A = Grip dimensions when cable sheath is used (≈ Ø 7.5 mm)

Pin Assignment

4-pin





- 1 = black 1
- 2 = black 2
- 3 = green/yellow
- 4 = black 3

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10006	0905 356 313/0.3 M	4	PUR, halogen-free, black	
10009	0905 356 313/0.6 M	4	PUR, halogen-free, black	
10010	0905 356 313/1 M	4	PUR, halogen-free, black	
10011	0905 356 313/2 M	4	PUR, halogen-free, black	
10012	0905 356 313/3 M	4	PUR, halogen-free, black	
82161	0905 356 313/5 M	4	PUR, halogen-free, black	
11141	0905 356 313/10 M	4	PUR, halogen-free, black	
82163	0905 356 313/15 M	4	PUR, halogen-free, black	
10013	0905 356 313/20 M	4	PUR, halogen-free, black	
10014	0905 356 313/25 M	4	PUR, halogen-free, black	
10015	0905 356 306/0.3 M	4	PUR, halogen-free, black	
10016	0905 356 306/0.6 M	4	PUR, halogen-free, black	
10017	0905 356 306/1 M	4	PUR, halogen-free, black	
10018	0905 356 306/2 M	4	PUR, halogen-free, black	
10019	0905 356 306/3 M	4	PUR, halogen-free, black	
82180	0905 356 306/5 M	4	PUR, halogen-free, black	
11113	0905 356 306/10 M	4	PUR, halogen-free, black	
11112	0905 356 306/15 M	4	PUR, halogen-free, black	
10020	0905 356 306/20 M	4	PUR, halogen-free, black	
10021	0905 356 306/25 M	4	PUR, halogen-free, black	

Single-ended Overmolded 7/8" Power Supply Cordsets – Female PROFIBUS and PROFINET

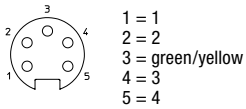
Technical Information

Product Description		
Order Designation	0905 204 301	0905 204 308
		
Description	Cordset for dual voltage supply to PROFIBUS and PROFINET I/O modules, single-ended overmolded with 7/8" female connector, straight, 5-pin (2 x 24 V + 2 x 0 V + earth)	Cordset for dual voltage supply to PROFIBUS and PROFINET I/O modules, single-ended overmolded with 7/8" female connector, angled, 5-pin (2 x 24 V + 2 x 0 V + earth)
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated	
Screw Coupling Material	PA	
Mechanical Data		
Degree of Protection	IP68 (2 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	9 A	
Pollution Degree	3	
Technical Drawing		

L = Standard length of cable

Pin Assignment

5-pin



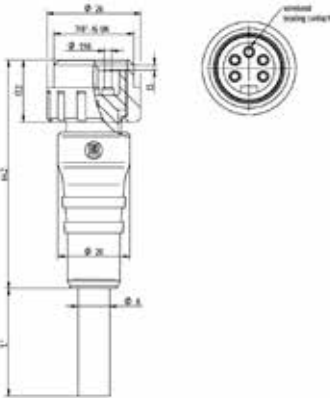
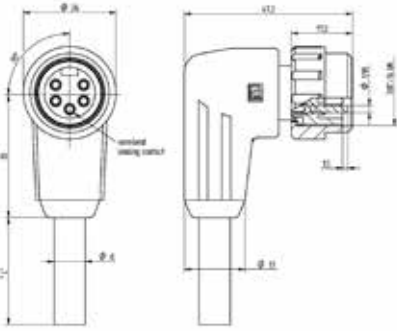


Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
101739	0905 204 301/0.3 M	5	PUR, halogen-free, black	
10022	0905 204 301/0.6 M	5	PUR, halogen-free, black	
13528	0905 204 301/1 M	5	PUR, halogen-free, black	
104942	0905 204 301/2 M	5	PUR, halogen-free, black	
13527	0905 204 301/3 M	5	PUR, halogen-free, black	
13504	0905 204 301/5 M	5	PUR, halogen-free, black	
55600	0905 204 301/10 M	5	PUR, halogen-free, black	
81914	0905 204 301/15 M	5	PUR, halogen-free, black	
76615	0905 204 301/20 M	5	PUR, halogen-free, black	
78045	0905 204 301/25 M	5	PUR, halogen-free, black	
10023	0905 204 308/0.3 M	5	PUR, halogen-free, black	
10024	0905 204 308/0.6 M	5	PUR, halogen-free, black	
104943	0905 204 308/1 M	5	PUR, halogen-free, black	
934636890	0905 204 308/2 M	5	PUR, halogen-free, black	
10025	0905 204 308/3 M	5	PUR, halogen-free, black	
82061	0905 204 308/5 M	5	PUR, halogen-free, black	
82062	0905 204 308/10 M	5	PUR, halogen-free, black	
82063	0905 204 308/15 M	5	PUR, halogen-free, black	
97997	0905 204 308/20 M	5	PUR, halogen-free, black	
934637812	0905 204 308/25 M	5	PUR, halogen-free, black	

Single-ended Overmolded 7/8" Power Supply Cordsets – Male PROFIBUS and PROFINET

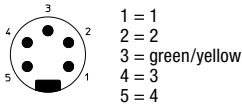
Technical Information

Product Description		
Order Designation	0905 204 303	0905 204 310
		
Description	Cordset for dual voltage supply to PROFIBUS and PROFINET I/O modules, single-ended overmolded with 7/8" male connector, straight, 5-pin (2 x 24 V + 2 x 0 V + earth)	Cordset for dual voltage supply to PROFIBUS and PROFINET I/O modules, single-ended overmolded with 7/8" male connector, angled, 5-pin (2 x 24 V + 2 x 0 V + earth)
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	
Approvals	–	
Technical Data		
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range	
Housing Material/Grip	TPU	
Contact Holder Material	TPU	
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated	
Screw Coupling Material	PA	
Mechanical Data		
Degree of Protection	IP68 (2 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	9 A	
Pollution Degree	3	
Technical Drawing		
		

L = Standard length of cable

Pin Assignment

5-pin





Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
10026	0905 204 303/0.3 M	5	PUR, halogen-free, black	
10027	0905 204 303/0.6 M	5	PUR, halogen-free, black	
10028	0905 204 303/1 M	5	PUR, halogen-free, black	
83598	0905 204 303/2 M	5	PUR, halogen-free, black	
97257	0905 204 303/3 M	5	PUR, halogen-free, black	
81779	0905 204 303/5 M	5	PUR, halogen-free, black	
81973	0905 204 303/10 M	5	PUR, halogen-free, black	
81912	0905 204 303/15 M	5	PUR, halogen-free, black	
101740	0905 204 303/20 M	5	PUR, halogen-free, black	
101741	0905 204 303/25 M	5	PUR, halogen-free, black	
10029	0905 204 310/0.3 M	5	PUR, halogen-free, black	
10030	0905 204 310/0.6 M	5	PUR, halogen-free, black	
104946	0905 204 310/1 M	5	PUR, halogen-free, black	
104944	0905 204 310/2 M	5	PUR, halogen-free, black	
10031	0905 204 310/3 M	5	PUR, halogen-free, black	
82158	0905 204 310/5 M	5	PUR, halogen-free, black	
82159	0905 204 310/10 M	5	PUR, halogen-free, black	
82160	0905 204 310/15 M	5	PUR, halogen-free, black	
10032	0905 204 310/20 M	5	PUR, halogen-free, black	
10033	0905 204 310/25 M	5	PUR, halogen-free, black	

Field Attachable 7/8" Connectors for Actuators and Sensors – Female

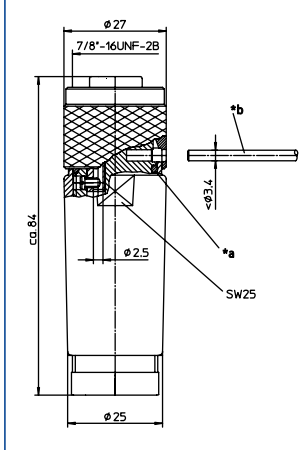
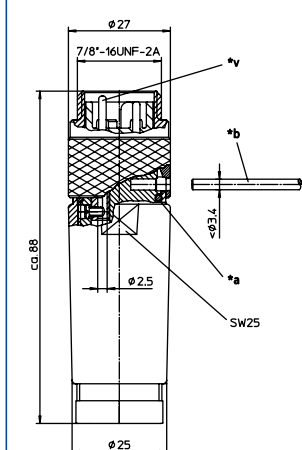
Technical Information

Product Description		
Order Designation	RKC 30/40/50	RSC 30/40/50
		
Description	Field attachable connector, 7/8" female with screw coupling, assembly using screw-type terminals, 3 to 5-pin	Field attachable connector, 7/8" male with screw coupling, assembly using screw-type terminals, 3 to 5-pin
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	-	
Approvals	UL	

Technical Data	
Ambient Temperature	-40 °C to +90 °C (UL to +50 °C)
Housing Material/Grip	PA
Contact Holder Material	TPU
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	Anodized aluminum

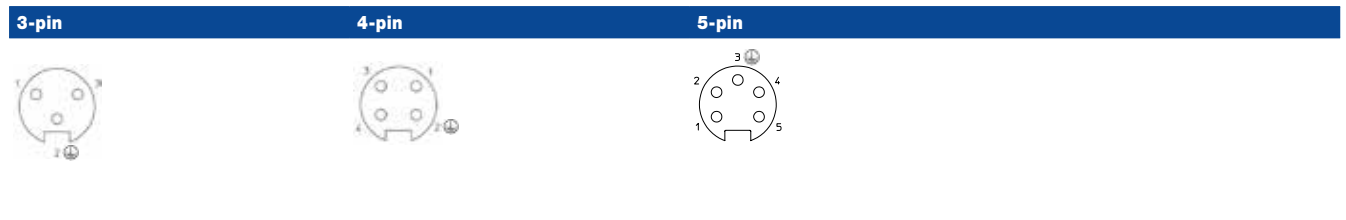
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)

Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	230 V AC/DC
Rated Current	3-pin 12 A, 4 to 5-pin 9 A
Pollution Degree	3

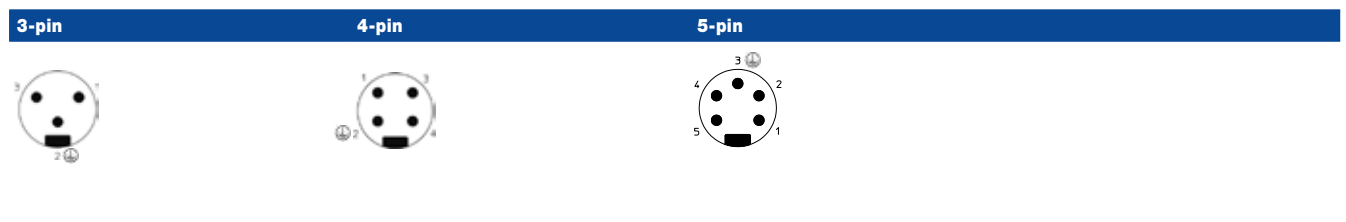
Technical Drawing	
	

*a = O-ring • *b = Pin or screwdriver as installation aid • *v = Contact 1.5 leading

Pin Assignment RKC 30/40/50



Pin Assignment RSC 30/40/50





Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
11209	RKC 30/9	3	screw	max. 1.5 mm ²	Ø 6.0 to 8.0 mm (PG 9)	
11206	RKC 30/11	3	screw	max. 1.5 mm ²	Ø 8.0 to 10.0 mm (PG 11)	
11219	RKC 40/9	4	screw	max. 1.5 mm ²	Ø 6.0 to 8.0 mm (PG 9)	
11225	RKC 50/9	5	screw	max. 1.5 mm ²	Ø 6.0 to 8.0 mm (PG 9)	
11222	RKC 50/11	5	screw	max. 1.5 mm ²	Ø 8.0 to 10.0 mm (PG 11)	
11224	RKC 50/16	5	screw	max. 1.5 mm ²	Ø 12.0 to 14.0 mm (PG 16)	
11581	RSC 30/9	3	screw	max. 1.5 mm ²	Ø 6.0 to 8.0 mm (PG 9)	
11578	RSC 30/11	3	screw	max. 1.5 mm ²	Ø 8.0 to 10.0 mm (PG 11)	
11589	RSC 40/9	4	screw	max. 1.5 mm ²	Ø 6.0 to 8.0 mm (PG 9)	
11595	RSC 50/9	5	screw	max. 1.5 mm ²	Ø 6.0 to 8.0 mm (PG 9)	
11592	RSC 50/11	5	screw	max. 1.5 mm ²	Ø 8.0 to 10.0 mm (PG 11)	
11594	RSC 50/16	5	screw	max. 1.5 mm ²	Ø 12.0 to 14.0 mm (PG 16)	

Conversion table mm² to AWG on page 20.

7/8" Receptacle Connectors for Actuators and Sensors – Female

Technical Information

Product Description		
Order Designation	RKF.../11	RKF.../13.5
		
Description	Receptacle connector, 7/8" female connector, for front mounting, assembled with stranded hook-up wire, potted on chassis side, PG 11 screw coupling at mounting side, 2 to 5-pin	Receptacle connector, 7/8" female connector, for front mounting, assembled with stranded hook-up wire, potted on chassis side, PG 13.5 screw coupling at mounting side, 2 to 5-pin
Note	Mounting using RSKF 11	Mounting using RSKF 13.5
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	–
Approvals	UL	

Technical Data

Ambient Temperature	-40 °C to +90 °C (UL to +50 °C), mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	TPU, self-extinguishing
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated

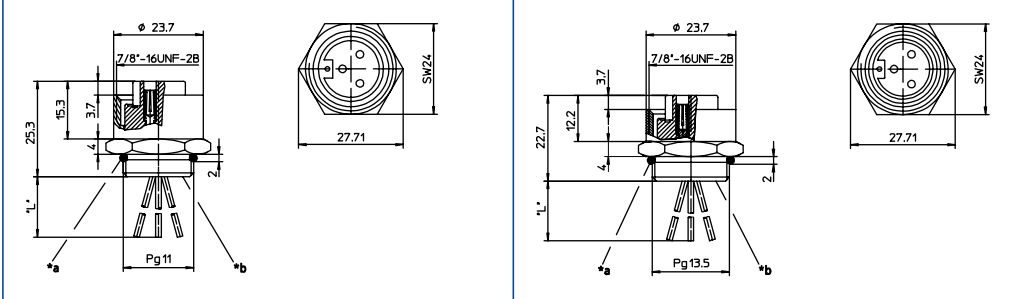
Mechanical Data

Degree of Protection	IP68 (1 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)
----------------------	----------------------------------------------------------------------------

Electrical Data





Contact Resistance	≤ 5 mΩ
Operating Voltage	230 V AC/DC
Rated Current	2-pin 12 A, 3-pin 8 A (UL), 4-pin 5.6 A (AWG 18), 5-pin 4.3 A (AWG 20), 5-pin 4.0 A (AWG 22)
Pollution Degree	3

Technical Drawing























*a = O-ring • *b = Conductor terminal area potted • L = 0.3 m

Pin Assignment

2-pin	3-pin	
 <p>1 = brown 2 = blue</p>	 <p>RKF...-05 1 = brown 2 = black 3 = blue</p>	<p>RKF...-01 1 = brown 2 = green/yellow 3 = blue</p>
4-pin	5-pin	
 <p>1 = brown 2 = white 3 = blue 4 = black</p>	 <p>1 = black 2 = blue 3 = green/yellow 4 = brown 5 = white</p>	



Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Mounting Thread	Characteristics
12930	RKF 20/11-03	2	0.75 mm ²	PG 11	 
11262	RKF 20/13.5-03	2	0.75 mm ²	PG 13.5	 
12889	RKF 30/11-01	3	0.75 mm ²	PG 11	 
11263	RKF 30/11-05	3	0.75 mm ²	PG 11	 
11264	RKF 30/13.5-01	3	0.75 mm ²	PG 13.5	 
11265	RKF 30/13.5-05	3	0.75 mm ²	PG 13.5	 
11268	RKF 40/11-02	4	0.50 mm ²	PG 11	 
11269	RKF 40/13.5-02	4	0.50 mm ²	PG 13.5	 
11271	RKF 50/11-04	5	0.50 mm ²	PG 11	 
11272	RKF 50/13.5-04	5	0.50 mm ²	PG 13.5	 

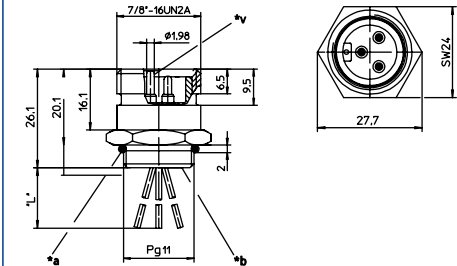
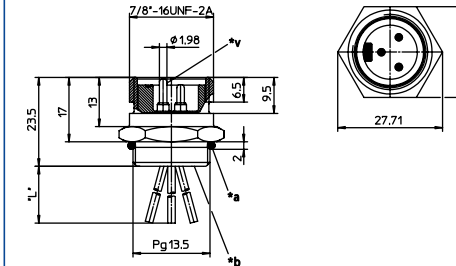
Conversion table mm² to AWG on page 20.

7/8" Receptacle Connectors for Actuators and Sensors – Male

Technical Information





Product Description		
Order Designation	RSF.../11	RSF .../13.5
		
Description	Receptacle connector, 7/8" male, front mounting, assembled with stranded hook-up wire, potted on chassis side, PG 11 screw coupling at mounting side, 2 to 5-pin	Receptacle connector, 7/8" male, front mounting, assembled with stranded hook-up wire, potted on chassis side, PG 13.5 screw coupling at mounting side, 2 to 5-pin
Note	Mounting using RSKF 11	Mounting using RSKF 13.5
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	–	–
Approvals	UL	

Technical Data	
Ambient Temperature	-25 °C to +90 °C (UL to +50 °C), mind cable temperature range
Housing Material/Grip	CuZn, nickel-plated
Contact Holder Material	TPU, self-extinguishing
Contact Material/Surface Finish	CuZn, silver-plated and gold-plated
Mechanical Data	
Degree of Protection	IP68 (1 h at 10 bar; only when mated with Lumberg/Hirschmann counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	230 V AC/DC
Rated Current	2-pin 12 A, 3-pin 8 A (UL), 4-pin 5.6 A (AWG 18), 5-pin 4.3 A (AWG 20), 5-pin 4.0 A (AWG 22)
Pollution Degree	3





















Technical Drawing	
	

*a = 0-ring • *b = Conductor terminal area potted • *v = Middle contact leading • L = 0.3 m

Pin Assignment

2-pin		3-pin	
	1 = brown 2 = blue		1 = brown 2 = green/yellow (RSF...-01) black (RSF...-05) 3 = blue
4-pin		5-pin	
	1 = brown 2 = white 3 = blue 4 = black		1 = black 2 = blue 3 = green/yellow 4 = brown 5 = white

Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Mounting Thread	Characteristics
11617	RSF 20/11-03	2	max. 0.75 mm ²	PG 11	 
11618	RSF 20/13.5-03	2	max. 0.75 mm ²	PG 13.5	 
11622	RSF 30/11-01	3	max. 0.75 mm ²	PG 11	 
11624	RSF 30/13.5-01	3	max. 0.75 mm ²	PG 13.5	 
11623	RSF 30/11-05	3	max. 0.75 mm ²	PG 11	 
11625	RSF 30/13.5-05	3	max. 0.75 mm ²	PG 13.5	 
11630	RSF 40/11-02	4	max. 0.50 mm ²	PG 11	 
11631	RSF 40/13.5-02	4	max. 0.50 mm ²	PG 13.5	 
11635	RSF 50/11-04	5	max. 0.50 mm ²	PG 11	 
11636	RSF 50/13.5-04	5	max. 0.50 mm ²	PG 13.5	 

Conversion table mm² to AWG on page 20.



T-splitters and Adapters for Actuators, Sensors, Passive and Field Bus Modules



Be certain. Belden.

Efficient and Flexible Wiring

With Lumberg Automation splitters, signals can be merged or distributed. They are therefore often used with passive and active distribution modules.

T-splitter for Doubling of Port

Connecting a T-splitter to an I/O port the number of inputs or output signals are doubled. Using a distribution module with 2 signals per port it is possible for two sensors or actuators to be connected via one I/O port.

With maximum utilisation (each port in a module has a splitter), a complete module is ultimately saved from use. A distribution module with 2 channels per port with 8 ports can control up to 16 signals.

Product Features


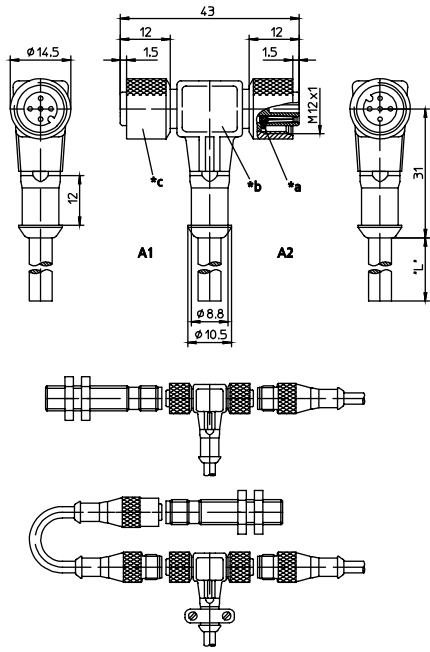
- Robust 7/8" and M23 T-splitter for the transfer of signals and power for DeviceNet, CanOpen, Interbus and Profibus systems
- Reliable RJ45/M12 adapter for data-transfer from the control cabinet
- M12 and M8 T-splitter and adapter for the transfer of signals and power for DeviceNet, CANopen or for doubling connections
- M8/M12 Valve adapter

Benefits

- Numerous variants available for flexible connection solutions
- Longevity due to robust design – even under extreme environments, more reliable connections with long useful life.

M12 2 Way Splitter with Overmolded Cable

Technical Information




Product Description	
Order Designation	ZV 2
	
Description	M12 double female connector screw connection, 3 pole with overmolded cable and 2 M12 female ports 4 pole (3 connections), vibration proof glands
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	-
Technical Data	
Ambient Temperature	-25 °C to +80 °C
Housing Material/Body	TPU, self-extinguishing
Contact Holder Material	TPU, self-extinguishing
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 10 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

*a = O-ring • *b = Overmolded body • *c = Nut (black)

Pin Assignment**3-pin**




1 = brown
 2 = n.c.
 3 = blue
 4 = black (A1)
 white (A2)

Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
43782	ZV 2 4-3-225/2 M	3	PUR, halogen-free, black	
43783	ZV 2 4-3-225/5 M	3	PUR, halogen-free, black	
43780	ZV 2 4-3-225/10 M	3	PUR, halogen-free, black	

M12-T-Splitter M12 Male and two M12 Female Connectors

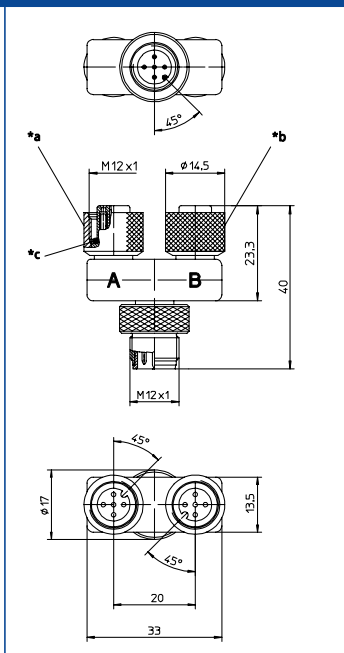
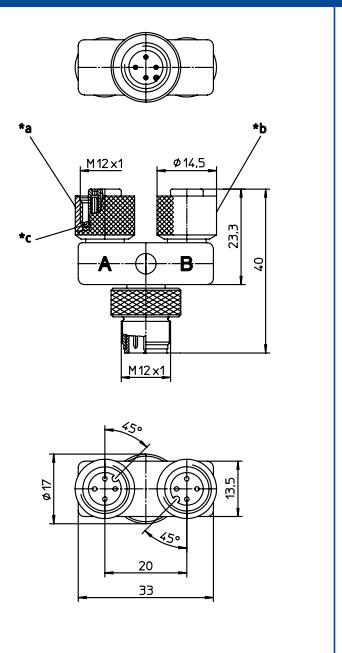
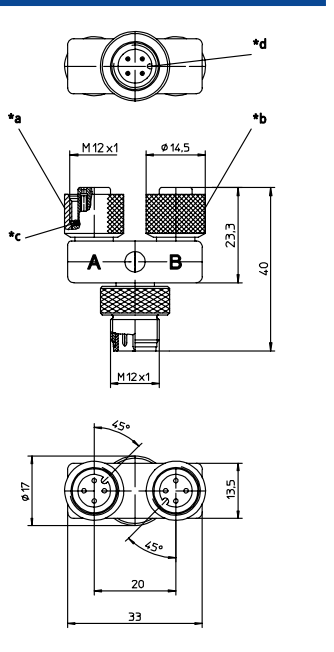
Technical Information

Product Description			
Order Designation	ASBS 2 M12	ASBSA 2 M12	ASBS 2 M12...-90
			
Description	T-splitter, M12 male and two M12 female connectors, 5-pin, knurled nuts and vibration proof connections ASBS 2 M12-5 1-1: 1 to 1 through wiring	T-splitter, M12 male and two M12 female ports, 3-pin, with AND circuit, knurled nuts and vibration proof connections	T-splitter, M12 male and two M12 female ports, 4- and 5-pin, with rotated coding knurled nuts and vibration proof connections
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61076-2-101		
Approvals	ASBS 2 M12-5S: UL		

Technical Data	
Ambient Temperature	-25 °C to +90 °C
Housing Material/Body	TPU, self-extinguishing
Contact Holder Material	Boxes: PA GF, self-extinguishing, Slot: TPU, self-extinguishing
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated

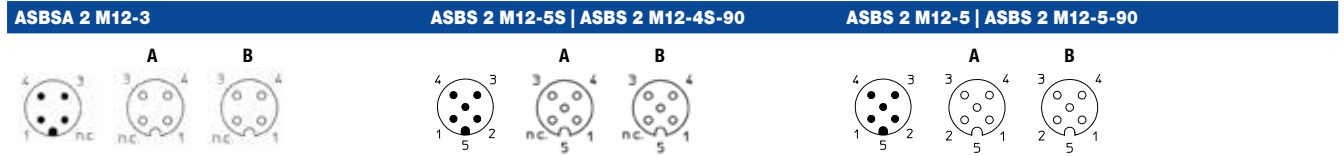
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)

Electrical Data	
Contact Resistance	≤ 10 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3

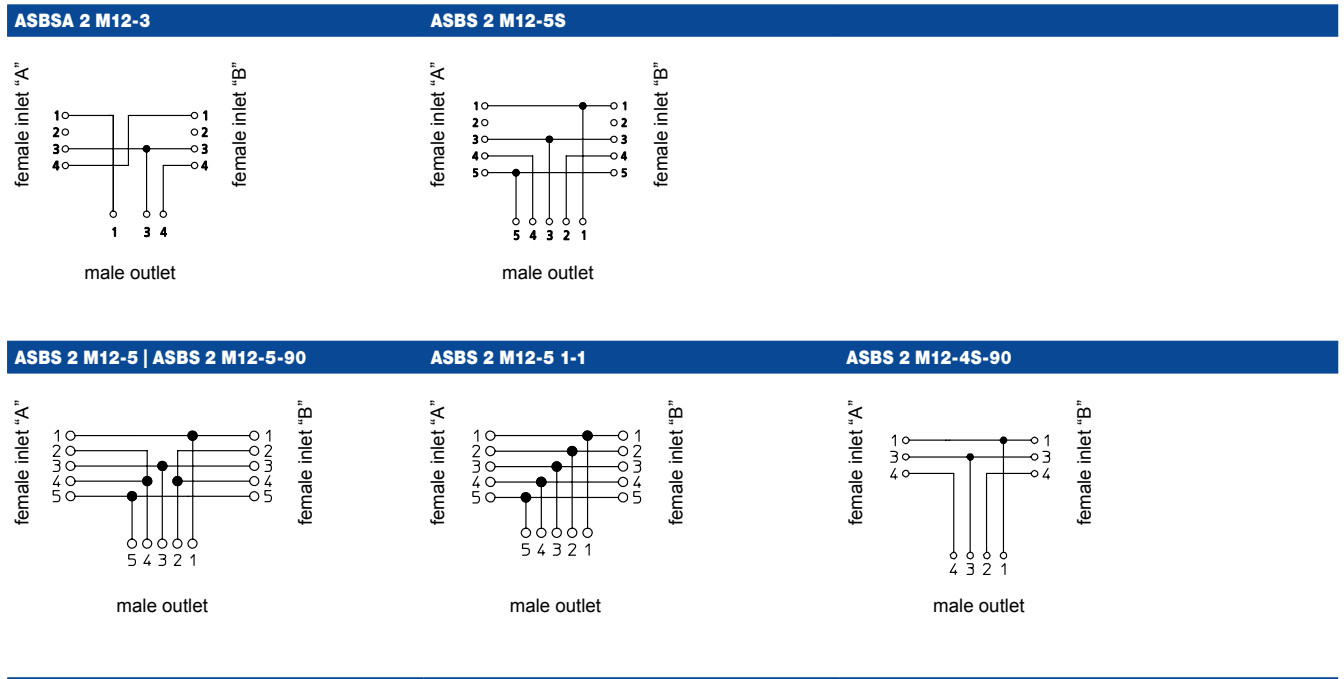
Technical Drawing		
		

*a = Nut (black) • *b = Nut (nickel-plated) • *c = O-ring • *d = Insert for 90° coding

Pin Assignment




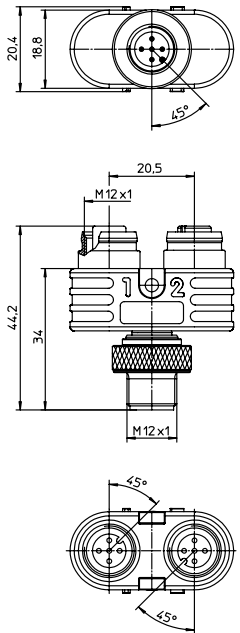
Circuit Diagram



Order Information

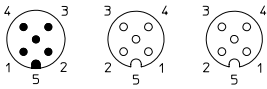
Order No.	Order Designation	No. of Pins	Characteristics
11122	ASBS 2 M12-5S	5	
11120	ASBS 2 M12-5	5	
68008	ASBS 2 M12-5 1-1	5	
58911	ASBSA 2 M12-3	3	
11119	ASBS 2 M12-4S-90	4	
11121	ASBS 2 M12-5-90	5	

M12 T-splitter with Mounting Hole**Technical Information**

Product Description	
Order Designation	FASBS 2 M12-5S
	
Description	T-splitter with mounting hole, M12 male and two M12 female ports, 5-pin, FIXCON compatible
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101
Approvals	-
Technical Data	
Ambient Temperature	-30°C to +80 °C
Housing Material/Body	TPU, self-extinguishing
Contact Holder Material	TPU, self-extinguishing
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 10 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	4 A
Pollution Degree	3
Technical Drawing	
	

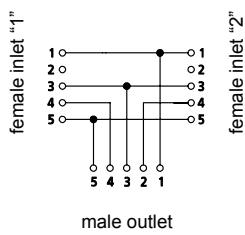
Pin Assignment

5-pin



Circuit Diagram

FASBS 2 M12-5S





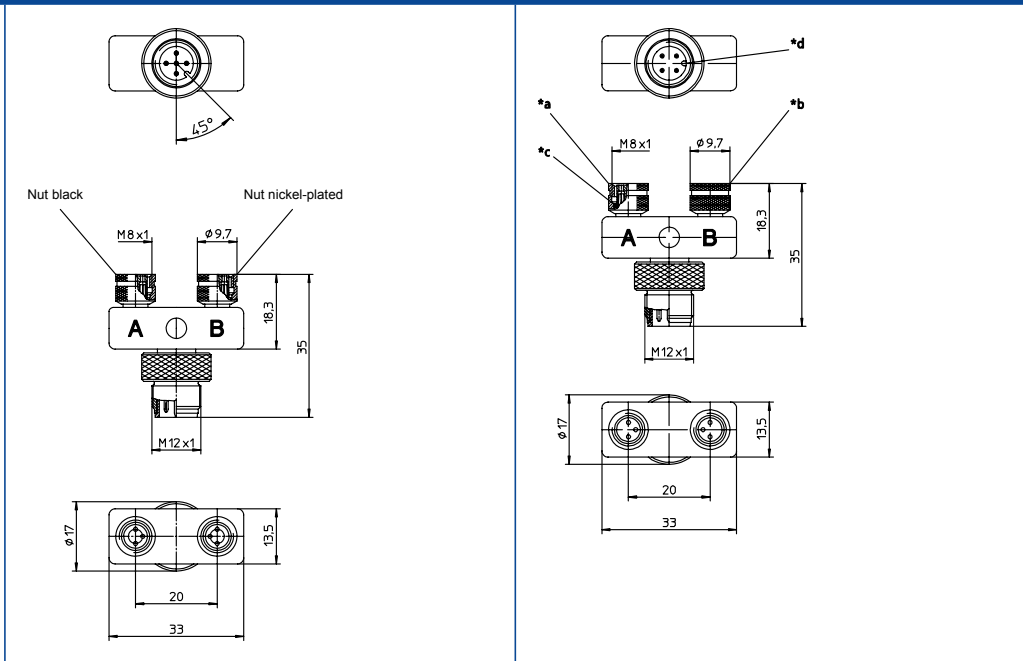
Order Information

Order No.	Order Designation	No. of Pins	Characteristics
51645	FASBS 2 M12-5S	5	 

M12-M8, T-splitter, M12 Male and two M8 Female Connectors

Technical Information

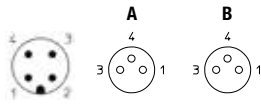
Product Description		
Order Designation	ASBS 2 M8	ASBS 2 M8-90
		
Description	T-splitter, M12 4 pin male and two M8 3 pin female connectors, with knurled nuts and vibration proof connections	T-splitter, M12 4 pin male and two M8 3 pin female connectors, with offset coding knurled glands and vibration proof connections
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101 (M12), IEC 61076-2-104	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Body	TPU, self-extinguishing	
Contact Holder Material	TPU, self-extinguishing	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	2 A per insert location/4 A max. total	
Pollution Degree	3	
Technical Drawing		



*a = Nut (black) • *b = Nut (nickel-plated) • *c = O-ring • *d = Insert for 90° coding

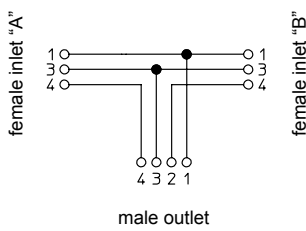
Pin Assignment

ASBS 2 M8 | ASBS 2 M8-90



Circuit Diagram

ASBS 2 M8 | ASBS 2 M8-90





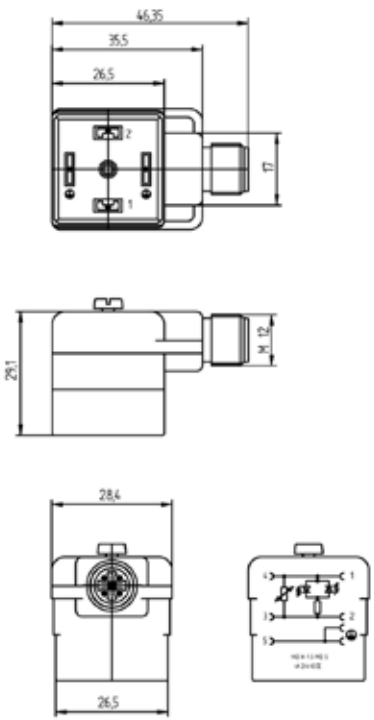
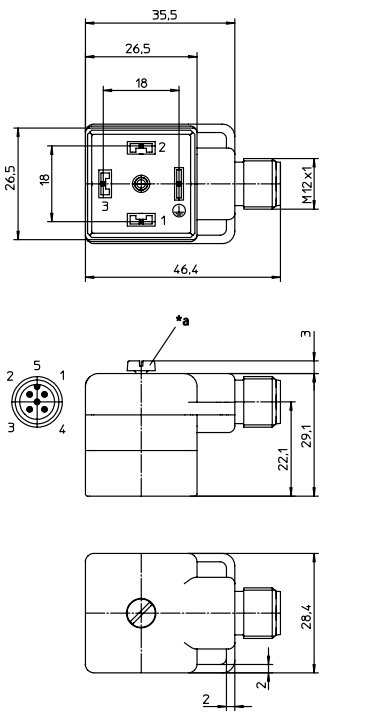
Order Information

Order No.	Order Designation	No. of Pins	Characteristics
11124	ASBS 2 M8	3	
11125	ASBS 2 M8-90	3	

M12 Valve Adapter in Accordance with DIN EN 175301-803, Type A

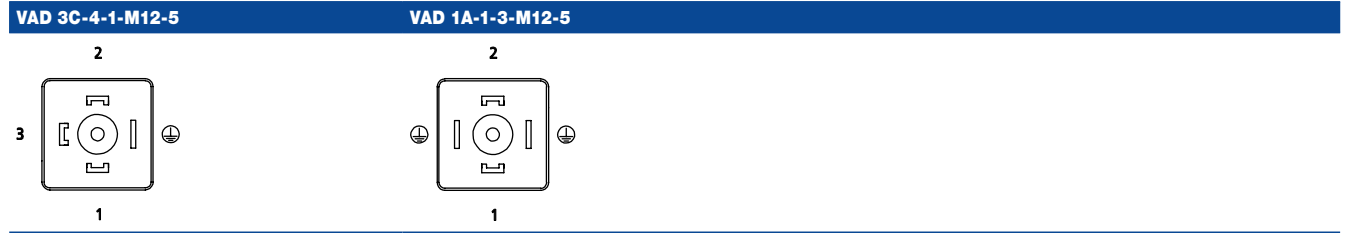
Technical Information

Product Description		
Order Designation	VAD 1A-1-3-M12-5	VAD 3C-4-1-M12-5
		
Description	Valve adapter in accordance with DIN EN 175301-803, 2-pin + PE, Type A with LED function display, protective circuitry with varistor, bridged earth connection, with M12 connection	Female connector for pressure switch in accordance with DIN EN 175301-803, 3-pin + PE, Type A, LED function display, with M12 connection
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803 (VAD), IEC 61076-2-101 (M12)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C	
Housing Material/Body	VAD: TPU, self-extinguishing/M12: CuZn, nickel-plated	
Contact Holder Material	VAD: PBT/M12: PA	
Contact Material/Surface Finish	VAD: CuZn, nickel underlay and zinc-plated/M12: CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	24 V AC/DC	24 V DC
Rated Current	4 A	
Pollution Degree	3	
Accessories		
Supplied with	Screw (mounted)	

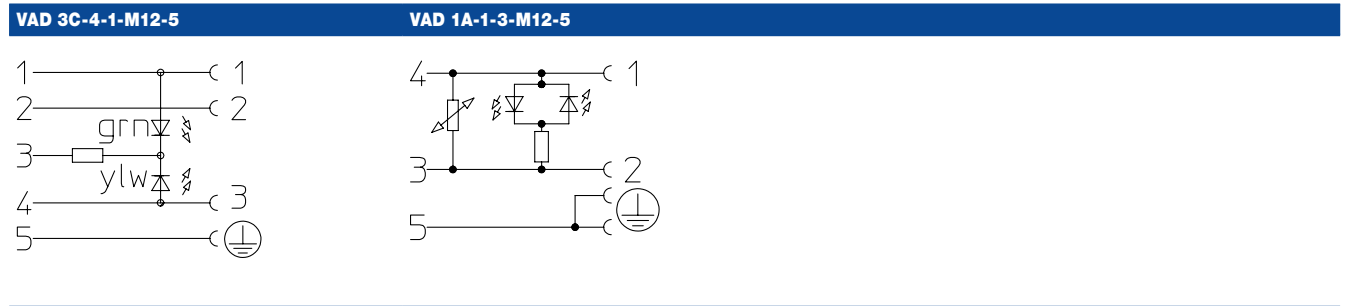
Technical Drawing	
	

*a = M3 screw

Pin Assignment



Circuit Diagram





Order Information

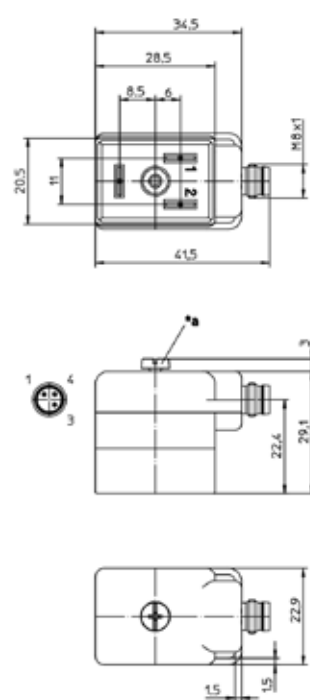
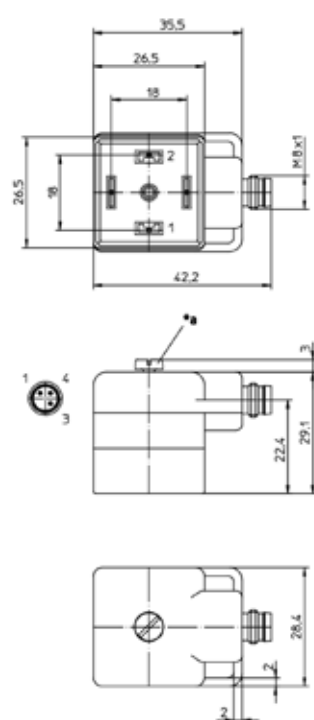
Order No.	Order Designation	No. of Pins	Characteristics
12141	VAD 1A-1-3-M12-5	2	
46568	VAD 3C-4-1-M12-5	3	

M8-Valve Adapter in Accordance with DIN EN 175301-803, Type A & B

Technical Information

Product Description		
Order Designation	VAD 1A-1-3-M8-3	VB 1A-1-2-M8-3
		
Description	Valve adapter in accordance with DIN EN 175301-803, 2-pin, Type A, with LED function display, protective circuitry with varistor, with M8 connector	Valve adapter in accordance with DIN EN 175301-803, 2-pin only when mated with Hirschmann/Lumberg counterparts, Type B with LED function display, protective circuitry with varistor, with M8 connector
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803 (Valve slot), IEC 61076-2-104 (M8)	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +80 °C	
Housing Material/Body	VAD/VB: TPU, self-extinguishing/M8: CuZn, nickel-plated	
Contact Holder Material	VAD/VB: PBT/M8: PA	
Contact Material/Surface Finish	VAD/VB: CuZn, nickel underlay and zinc-plated/M8: CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	24 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Accessories		
Supplied with	Screw (mounted)	

Technical Drawing



*a = M3 screw

Pin Assignment



Circuit Diagram


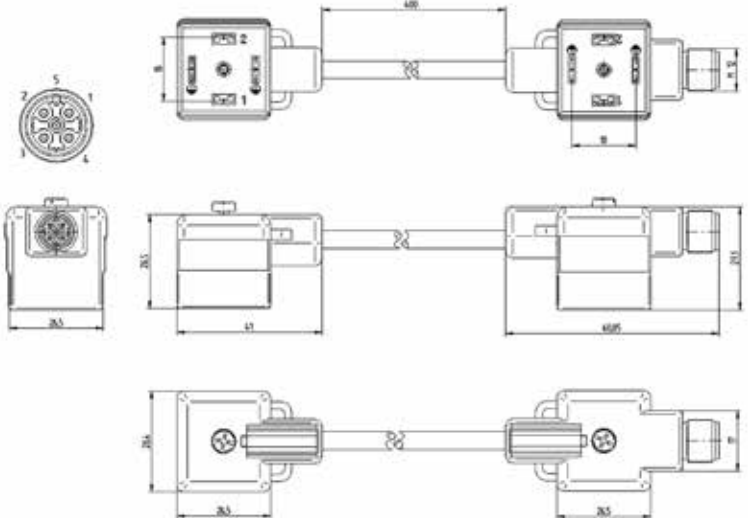


Order Information

Order No.	Order Designation	No. of Pins	Characteristics
12142	VAD 1A-1-3-M8-3	2	
12198	VB 1A-1-2-M8-3	2	

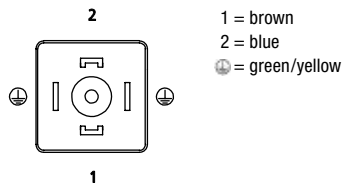
Double Solenoid Valve Adapter with M12 Interface

Technical Information

Product Description	
Order Designation	VAD M12 1A-VAD 1A-1-3
	
Description	Double solenoid valve adapter (a valve adapter with integrated M12 to Type A solenoid connector in accordance with DIN EN 175301-803), with function display and varistor for protection against power surges, bridged earth connection
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803 (Valve slot), IEC 61076-2-101 (M12)
Approvals	–
Technical Data	
Ambient Temperature	-25 °C to +80 °C
Housing Material/Body	TPU, self-extinguishing
Contact Holder Material	VAD: PBT, M12: PA
Contact Material/Surface Finish	VAD: CuZn, nickel-plated and zinc-plated, M12: CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	24 V AC/DC
Rated Current	4 A
Pollution Degree	3
Accessories	
Supplied with	Label plate, screw (mounted)
Technical Drawing	
	

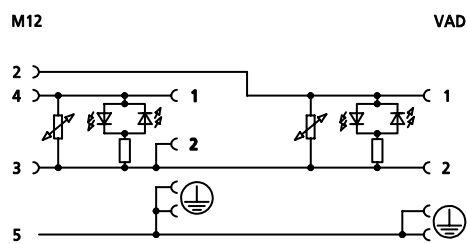
Pin Assignment

VAD M12 1A-VAD 1A-1-3



Circuit Diagram

VAD M12 1A-VAD 1A-1-3





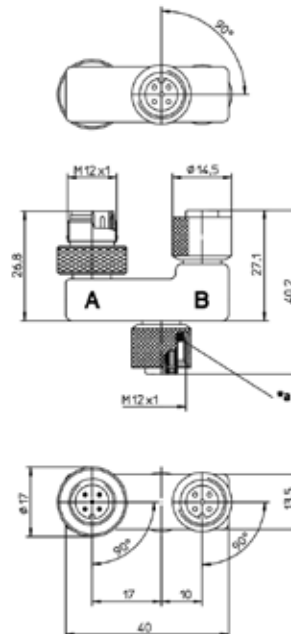
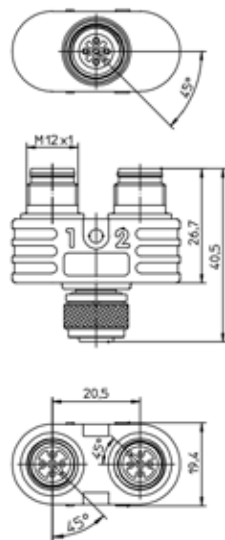
Order Information

Order No.	Order Designation	No. of Pins	Jacket	Characteristics
12180	VAD M12 1A-VAD 1A-1-3-226/0.4 M	3	PUR, halogen-free, black	
12181	VAD M12 1A-VAD 1A-1-3-241/0.4 M	3	PUR, halogen-free, sf-resistant, black	

Data Connector M12-M12, T-splitter

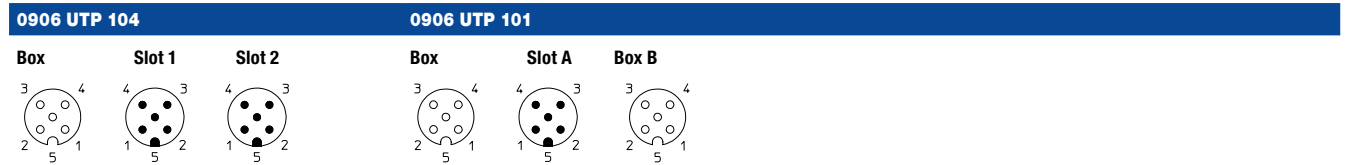
Technical Information

Product Description		
Order Designation	0906 UTP 104	0906 UTP 101
		
Description	T-splitter with mounting hole, 2 M12 male and M12 female connectors, 5-pin	T-splitter, M12 box on one M12 slot and a M12 box, 5-pin
Note	Particularly suited for connecting decentralised 24 V power supply to LiON Link I/O module.	Particularly suited for DeviceNet™ and CANopen®-Module with M12 bus connection.
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61076-2-101	
Approvals	-	
Technical Data		
Ambient Temperature	-25 °C to +90 °C	
Housing Material/Body	TPU, self-extinguishing	
Contact Holder Material	TPU, self-extinguishing	
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated	
Screw Coupling Material	CuZn, nickel-plated	
Mechanical Data		
Degree of Protection	IP67 (only when mated with associated counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	50 V AC/60 V DC	
Rated Current	4 A	
Pollution Degree	3	
Technical Drawing		

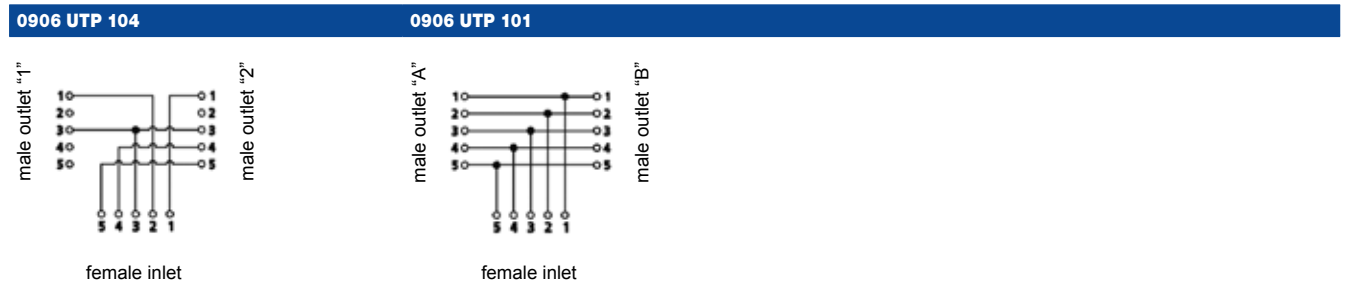


0906 UTP 104: 1 = Male Connector • 2 = Male Connector
 0906 UTP 101: A = Male Connector • B = Female Connector • *a = O-ring

Pin Assignment



Circuit Diagram




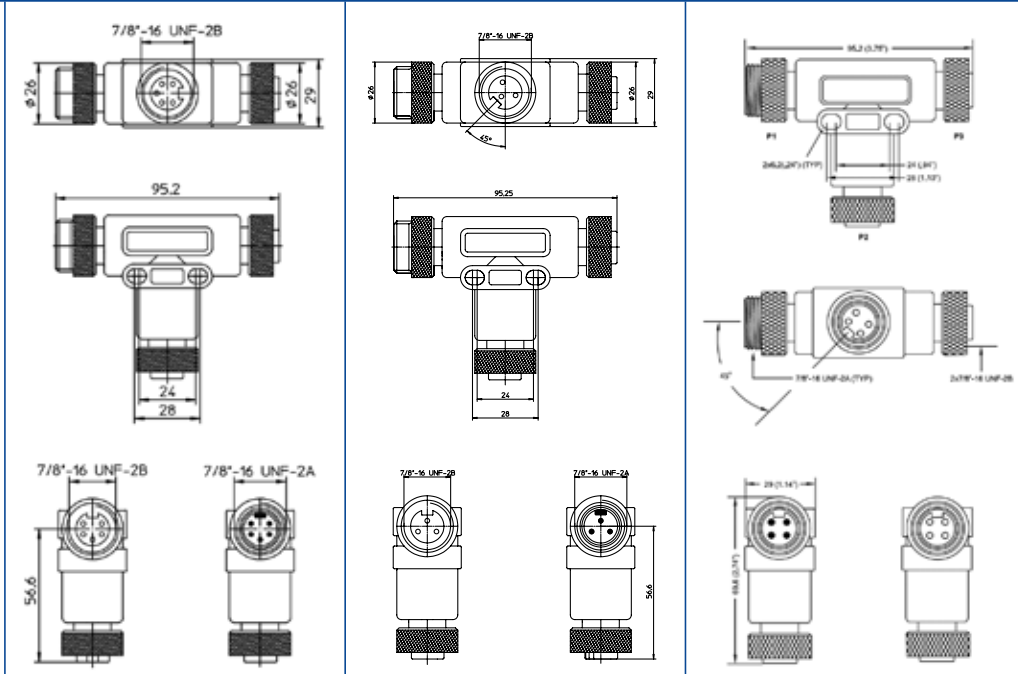


Order Information

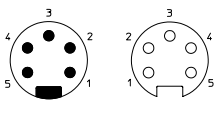


Order No.	Order Designation	No. of Pins	Characteristics
98611	0906 UTP 104	5	 
7843	0906 UTP 101	5	 

Data Connector 7/8", T-splitter, 7/8"-Female, 7/8"-Male and 7/8"-Female







Technical Information

Product Description			
Order Designation	0906 UTP 301	0906 UTP 303	0906 UTP 312
			
Description	T-splitter with 7/8" connectors 5-pin	T-splitter for power supply with 7/8" connectors 3-pin	T-splitter with 7/8" connectors 4-pin
Note	Particularly suited for DeviceNet™ module with 7/8" bus connection.	Particularly suited for DeviceNet™ and CANopen® module.	
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	ANSI/B93.55M-1981 (7/8")		
Approvals	UL		
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing Material/Body	TPU		
Contact Holder Material	TPU		
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated		
Screw Coupling Material	Anodized aluminum, black		
Mechanical Data			
Degree of Protection	IP68, Nema 6P (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	300 V AC/DC		
Rated Current	8 A (trunk), 4 A (drop)		8 A
Pollution Degree	3		
Technical Drawing			
			


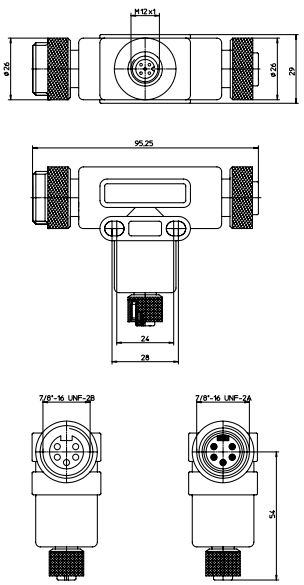
Pin Assignment

0906 UTP 301	0906 UTP 303	0906 UTP 312
<p>7/8", 5-pin</p>  <p>1 = Drain 2 = +24 V 3 = GND (0 V) 4 = CAN_H 5 = CAN_L</p>	<p>7/8", 3-pin</p>  <p>1 = Earth 2 = +24 V 3 = GND (0 V)</p>	<p>7/8", 4-pin</p>  <p>P 2/3 P 1</p>

Order Information

Order No.	Order Designation	No. of Pins	Characteristics
2236	0906 UTP 301	5	UL  
3047	0906 UTP 303	3	UL  
103783	0906 UTP 312	4	UL  

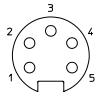
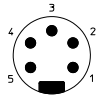
Data Connector 7/8", T-splitter, M12 Female to 7/8"-Male and 7/8"-Female Connectors**Technical Information**

Product Description	
Order Designation	0906 UTP 302
	
Description	T-splitter with 7/8" male/female, 5-pin and M12-Female, 5-pin as branch
Note	Particularly suited for DeviceNet™ module with M12 bus connection.
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	ANSI/B93.55M-1981 (7/8"), IEC 61076-2-101 (M12)
Approvals	–
Technical Data	
Ambient Temperature	–40 °C to +90 °C
Housing Material/Body	TPU
Contact Holder Material	7/8": TPU, M12: PA
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated (according to DeviceNet™ specifications)
Screw Coupling Material	Anodized aluminum, black (7/8"), CuZn, nickel-plated (M12)
Mechanical Data	
Degree of Protection	IP68, Nema 6P (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	8 A (7/8", Thick cable), 4 A (M12, Thin cable)
Pollution Degree	3
Technical Drawing	
	

Pin Assignment

0906 UTP 302

7/8", 5-pin



- 1 = Drain
- 2 = +24 V
- 3 = GND (0 V)
- 4 = CAN_H
- 5 = CAN_L

M12, 5-pin






- 1 = Earth
- 2 = +24 V
- 3 = GND (0 V)

Order Information

Order No.	Order Designation	No. of Pins	Characteristics
16588	0906 UTP 302	5	 

Data Connector M23, T-splitter, M23 Female to M23 Male and M23 Female

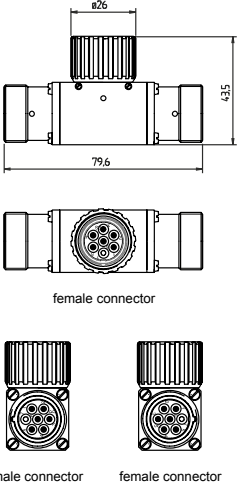
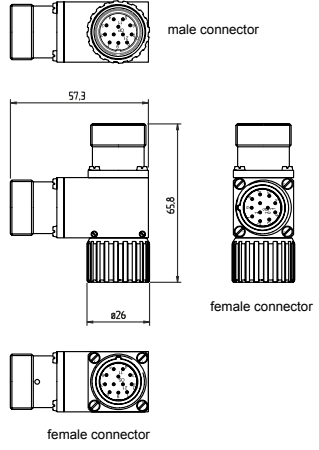
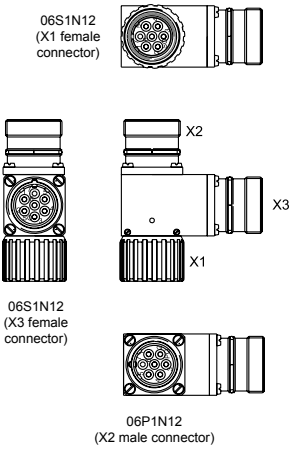
Technical Information

Product Description			
Order Designation	0906 UTP 201	0906 UTP 202	0906 UTP 203
			
Description	T-splitter for power supply, 1 x M23 female, 2 x M23 male, 6-pin	T-splitter for intermediate feed for the power supply, 2 x M23, male 1 2 pole to 1 x M23, female 12-pin	T-splitter for power supply, 1 x M23 female, 2 x M23 male, 6-pin
Note	Particularly suited for PROFIBUS and INTERBUS modules with M23 power supply.	Particularly suited for PROFIBUS module with M12 bus connection.	Particularly suited for looping power supply.
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	-		
Approvals	-		





Technical Data	
Ambient Temperature	-40 °C to +125 °C
Housing Material/Body	CuZn, GD-Zn, nickel-plated
Contact Holder Material	PBT
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated

Mechanical Data	
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)

Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	150 V AC/DC	50 V AC/DC	
Rated Current	8 A	8 A	5 A
Pollution Degree	3		










Technical Drawing			
			

Pin Assignment

6-pin		12-pin	
		0906 UTP 201 1 = Earth 2 = + 24 V (1) 3 = GND (0 V) (1) 4 = + 24 V (2) 5 = GND (0 V) (2) 6 = n.c.	0906 UTP 203 1 = Earth 2 = + 24 V ¹ 3 = GND (0 V) ¹ 4 = + 24 V ² 5 = GND (0 V) ² 6 = n.c. Housing = n.c.
			
		0906 UTP 202 1 = n.c. 2 = Signal A 3 = n.c. 4 = Signal B 5 = n.c. 6 = n.c.	0906 UTP 202 7 = + 24 V 8 = GND (0 V) 9 = Earth 10 = n.c. 11 = n.c. 12 = n.c.



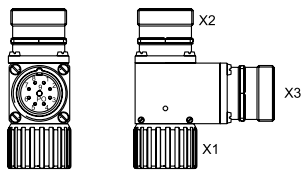
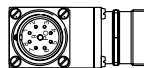
1 = Profibus: Actuator 1, Interbus: Actuator • 2 = Profibus: Actuator 2, Interbus: System

Order Information

Order No.	Order Designation	No. of Pins	Characteristics
6906	0906 UTP 201	6	  
2298	0906 UTP 202	12	  
43940	0906 UTP 203	6	  

Data Connector M23, T-splitter, M23 Male to M23 Male and M23 Female

Technical Information

Product Description	
Order Designation	0906 UTP 204
	
Description	T-splitter for separate power supply feed in, installation remote bus modules, with M23-male/-female, 9-pin
Note	Particularly suited for INTERBUS® installation remote bus modules.
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	–
Approvals	–
Technical Data	
Ambient Temperature	-40 °C to +125 °C
Housing Material/Body	CuZn, GD-Zn, nickel-plated
Contact Holder Material	PBT
Contact Material/Surface Finish	CuZn, nickel underlay and gold-plated
Screw Coupling Material	CuZn, nickel-plated
Mechanical Data	
Degree of Protection	IP67 (only when mated with associated counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/DC
Rated Current	8 x 8 A, 1 x 20 A
Pollution Degree	3
Technical Drawing	
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="text-align: left; margin-right: 10px;"> <p>09S1N12 (X1 female connector)</p> </div>  </div> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="text-align: left; margin-right: 10px;"> <p>09P1N12 (X3 male connector)</p> </div>  </div> <div style="display: flex; align-items: center;"> <div style="text-align: left; margin-right: 10px;"> <p>09P1N12 (X2 male connector)</p> </div>  </div> </div>	

Pin Assignment

9-pin




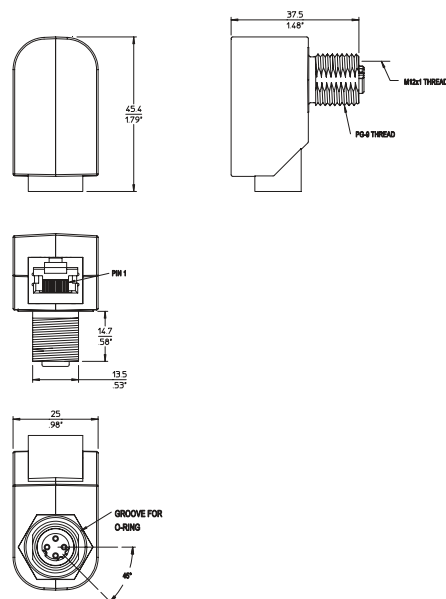
- 1 = DO
- 2 = \overline{DO}
- 3 = DI
- 4 = \overline{DI}
- 5 = COM
- 6 = Earth
- 7 = +24 V
- 8 = GND (0 V)
- 9 = n.c.
- Housing = n.c.

Order Information

Order No.	Order Designation	No. of Pins	Characteristics
43941	0906 UTP 204	9	  

Data Connector RJ45-M12, RJ45-/M12-Adapter**Technical Information**

Product Description	
Order Designation	0981 ENC 100
	
Description	RJ45-/M12 Adapter for industrial ethernet, M12 mounting connector 4-pin, D-coding, mounting thread PG 9, RJ45 female 90 degree
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61076-2-101 (M12-D), IEC 60603-7 (RJ45)
Approvals	–
Technical Data	
Ambient Temperature	0 °C to +70 °C
Housing Material/Body	PA, M12-Housing: CuZn, nickel-plated, RJ45-Housing: CuZn, zinc-plated
Contact Holder Material	M12: PUR, self-extinguishing, RJ45: PA GF
Contact Material/Surface Finish	M12: CuZn, nickel underlay and gold-plated, RJ45: CuSn, nickel underlay and gold-plated
Mechanical Data	
Degree of Protection	M12: IP67 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	50 V AC/60 V DC
Rated Current	1.5 A
Pollution Degree	M12: 3
Technical Drawing	



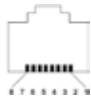
Pin Assignment

4-pin, D-coding



- 1 = TD+
- 2 = RD+
- 3 = TD-
- 4 = RD

Housing = Shield






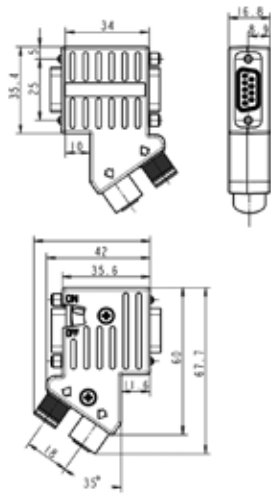
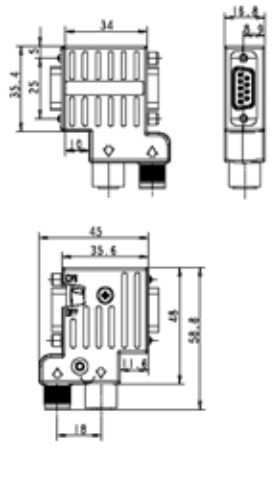
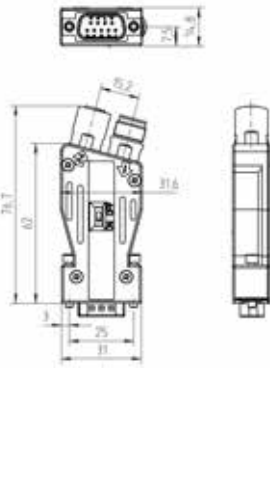
- 1 = TD+
- 2 = TD-
- 3 = RD+
- 4 = n.c.
- 5 = n.c.
- 6 = RD-
- 7 = n.c.
- 8 = n.c.

Order Information

Order No.	Order Designation	No. of Pins
63484	0981 ENC 100	4

Data Connector D-Sub/M12 Profibus-DP-Connector

Technical Information

Product Description			
Order Designation	0976 PMC 512	0976 PMC 514	0976 PMC 515
			
Description	D-Sub/M12 Profibus Bus connector, 35° compact version (cable entry 35° to D-Sub plug direction), for interfaces above one another, programming/diagnosis option with second D-Sub, M12-Quick connection variant, full metal housing, with test socket, with external switch for bus termination, connection and pin layout according to PROFIBUS specifications	D-Sub/M12 Profibus Bus connector, 90° compact version (cable entry 90° to D-Sub plug direction), programming/diagnosis option with second D-Sub, M12-Quick connection variant, full metal casing, with test socket, with external switch for bus termination, connection and pin layout according to PROFIBUS specifications	D-Sub/M12 Profibus bus connector, 180° compact version (axial cable connection), M12 quick connection variant, full metal casing, no test socket, with external switch for bus termination, connector and pin layout according to PROFIBUS specifications
Interfaces	<ul style="list-style-type: none"> – PROFIBUS DP PG interface: D-Sub, 9-pin female – PROFIBUS cable interface: M12 B-coding pin and socket (pin 1 = +5 V, pin 2 = line A, pin 3 = GND (0 V), pin 4 = line B) – Fully-assembled shielded Profibus M12 cordset: B-coding, only pin 2 and 4 connected, shield to housing (e.g. 0975 254 10x/... M) – Mechanical life span: 200 insert cycles – D-Sub screw locking: Knurled screw UNC 4-40 – Bus termination resistor via external switch or via external terminator connector (e.g. 0979 PTX 101) 		
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	–		
Approvals	–		
Technical Data			
Ambient Temperature	-20 °C to +70 °C (allowable humidity: max. 75% at +25 °C, no condensation)		
Housing Material/Body	Zn-alloy		
Operating Voltage	5 V DC		
Mechanical Data			
Degree of Protection	IP30 (only when mated with Hirschmann/Lumberg counterparts)		
Technical Drawing			
			

Order Information

Order No.	Order Designation	No. of Pins
109519	0976 PMC 512	9
109517	0976 PMC 514	9
109518	0976 PMC 515	9



Rectangular Connectors and Cordsets, GDM Series



Be certain. Belden.

The Professional Valve Connector for Pneumatics and Hydraulics

Hydraulic, pneumatic and electro-magnetic actuators and sensors – this durable rectangular connector is protected against dust and water jet spray and is locked with a vibration-proof central screw, also available as a knurled screw for mounting without tools. An additional seal is required for protection to IP68 and IP69K.

Benefits

- Protection circuits and/or function indicators ensure reliable power supply or data communications
- Protection ratings up to IP69K guarantee maximum reliability together with high shock and vibration resistance – even in the most adverse environments

- High-quality materials with extensive resistance to numerous chemicals and UV light ensure a long service life
- Meets international standards to ensure universal compatibility

Applications

The GDM series is used wherever rectangular connectors must be resilient, such as on oil rigs, conveyor systems, in mechanical and plant engineering.

Thanks to a protection circuit and/or function indicator, as well as an extremely robust design, they can reliably connect solenoid valves, pressure sensors, temperature sensors, and flow monitors to voltage supplies or a data network.

Even in devices and components exposed to vibrations, such as construction machinery or conveyor systems, using press-fit crimping technology allows for an extremely robust solution. The GDM series, with integrated electronic components such as rectifiers, optical status indicators, and RC circuits, connect to devices that do not have these functions built in.

Product Coding for GDM Series Valve Connectors, Type A, Overmolded

G A N 2 1 0 U - A 0 U - 2 2 8 0 2 0 0

Series

G = GDM series

Type

AN = Type A, female connector 90°, overmolded, DIN

Pin Assignment

20 = 2-pin	30 = 3-pin
21 = 2 + PE	31 = 3 + PE
22 = 2 + 2 PE	3Z = 3 + PE (PE offset by 180°)

(Other pin assignments available upon request.)

Material

0 = Black, standard (UL 94 HB) **L** = Transparent/gray, standard
 (Other housing materials available upon request.)

Cable Connection

U = Overmolded

Protection Circuit

A0 = No protection circuit
C1 = RC filter
C2 = RC filter, LED
C3 = Varistor, bridge rectifier, capacitor
C4 = Varistor, bridge rectifier, capacitor, LED
D1 = Recovery diode
D2 = Recovery diode, LED
D3 = Bridge rectifier
D4 = Bridge rectifier, LED
L1 = LED (pin 1, 2)
P1 = Dual LED for pressure switch, P2-P4/P3-P4 (operation)
P2 = Dual LED for pressure switch, P1-P4 (operation)/P3-P4 (function)
P3 = Single LED for pressure switch, P3-P4
P4 = Dual LED for pressure switch, P2-P1/P3-P1
S1 = Suppressor diode
S2 = Suppressor diode, LED
S3 = Suppressor diode, bridge rectifier
S4 = Suppressor diode, bridge rectifier, LED
V1 = Varistor
V2 = Varistor, LED
V3 = Varistor, bridge rectifier
V4 = Varistor, bridge rectifier, LED

Operating Voltage

1 = 120 V, yellow LED	N = 230 V, red/green LED
2 = 12 V, yellow LED	Q = 24 V, without LED
4 = 24 V, yellow LED	S = 120 V, without LED
A = 12 V, red LED	U = 230 V/universal, without LED
J = 24 V, red/green LED	Y = 230 V/universal, yellow LED
M = 24 V, green/yellow LED	

Cable Jacket



212 = PVC 3G, 0.50 mm², black	609 = PVC 3G, 0.75 mm², gray
226 = PUR 3G, 0.50 mm², black (UL)	611 = PVC 5G, 0.75 mm², gray
228 = PUR 5G, 0.50 mm², black (UL)	612 = PVC 2X, 0.75 mm², gray
259 = PUR 5G, 0.50 mm², orange	618 = PVC 2X, 0.75 mm², gray (UL)
603 = PUR 3G, 0.75 mm², gray (UL)	743 = PVC 4G, 0.50 mm², black (UL)
604 = PUR 4G, 0.75 mm², gray (UL)	744 = PUR 4G, 0.50 mm², black (UL)
606 = PUR 2X, 0.75 mm², gray (UL)	

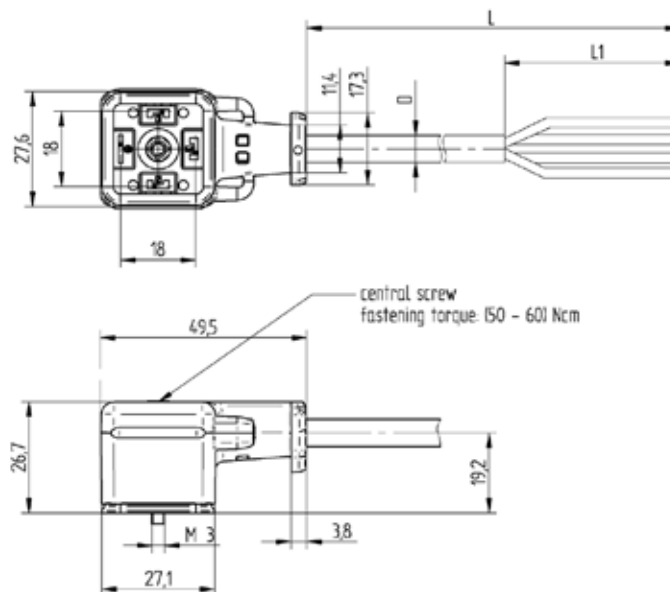
Cable Length

0200 = 2 meters
 0500 = 5 meters
 1000 = 10 meters

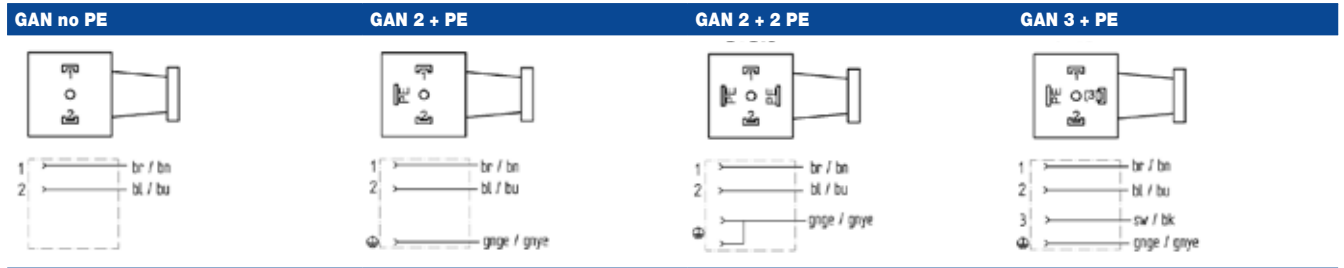
GDM Series Valve Connectors, Type A, Overmolded Female Connectors

Technical Information

Product Description		
Order Designation	GANXX0U-A0U	GANXXLU-A0U
		
Description	Valve connector GDM series, type A, female connector overmolded, with UL approval, available with different pin options	Valve connector GDM series, type A, female connector overmolded, available with different pin options
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	VDE, UL	VDE
Technical Data		
No. of Pins	2, 2 + PE, 2 + 2PE, 3 + PE	
Ambient Temperature	-25 °C to +85 °C (UL), -40 °C/+105 °C (with additional gasket)	
Housing/Grip/Screw Coupling	TPU, black (UL)	TPU, gray translucent
Contact Holder	PA 66	
Contact	CuZn	
Central Screw	4.8, Fe/Zn B	
Flammability Class	HB	
Mechanical Data		
Degree of Protection	IP67, IP68/IP69K with PUR cable (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Circuit	No protection circuit	
Operating Voltage	230 V AC/DC, without PE: 50 V AC/60 V DC	
Rated Current	10 A (cable: 0.75 mm ²), 6 A (cable: 0.5 mm ²)	
Pollution Degree	3	
Accessories		
Cable	PVC, PUR	
Conductor Size	2 x 0.75 mm ² , 3 x 0.50 mm ² , 3 x 0.75 mm ² , 4 x 0.50 mm ² , 4 x 0.75 mm ²	
Scope of Delivery or Accessories (incl.)	Central screw	
Accessories to be Ordered Separately	735633002, GAN gasket 735656002, fixing clip for additional gasket	
Technical Drawing		



Pin Assignment



Circuit Diagram







































Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889087	GAN20LU-A0U-6060200	2	2 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PUR, gray	
934889088	GAN20LU-A0U-6060500	2	5 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PUR, gray	
6736	GAN20LU-A0U-6061000	2	10 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PUR, gray	
934889085	GAN20LU-A0U-6120200	2	2 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PVC, gray	
934889086	GAN20LU-A0U-6120500	2	5 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PVC, gray	
10547	GAN20LU-A0U-6121000	2	10 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PVC, gray	
934889073	GAN21LU-A0U-6030200	2 + PE	2 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	
934889074	GAN21LU-A0U-6030500	2 + PE	5 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	
10548	GAN21LU-A0U-6031000	2 + PE	10 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	
934889083	GAN22LU-A0U-6030200	2 + 2 PE	2 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	
934889084	GAN22LU-A0U-6030500	2 + 2 PE	5 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	
10903	GAN22LU-A0U-6031000	2 + 2 PE	10 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	
934889070	GAN21LU-A0U-6090200	2 + PE	2 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, gray	
934889071	GAN21LU-A0U-6090500	2 + PE	5 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, gray	
934889072	GAN21LU-A0U-6091000	2 + PE	10 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, gray	





Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type A, Overmolded Female Connectors (continued)**Order Information**

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889001	GAN22LU-A0U-2050200	2 + 2 PE	2 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, black	   
934889002	GAN22LU-A0U-2050500	2 + 2 PE	5 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, black	   
934889003	GAN22LU-A0U-2051000	2 + 2 PE	10 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, black	   
10904	GAN22LU-A0U-2260200	2 + 2 PE	2 M	230 V AC/DC, without LED	3 x 0.50 mm ²	PUR, black	   
934889004	GAN22LU-A0U-2260500	2 + 2 PE	5 M	230 V AC/DC, without LED	3 x 0.50 mm ²	PUR, black	   
934889005	GAN22LU-A0U-2261000	2 + 2 PE	10 M	230 V AC/DC, without LED	3 x 0.50 mm ²	PUR, black	   
934889081	GAN22LU-A0U-6090200	2 + 2 PE	2 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, gray	   
934889082	GAN22LU-A0U-6090500	2 + 2 PE	5 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, gray	   
934889129	GAN22LU-A0U-6091000	2 + 2 PE	10 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PVC, gray	   
934889006	GAN31LU-A0U-7430200	3 + PE	2 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PVC, black	   
934889007	GAN31LU-A0U-7430500	3 + PE	5 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PVC, black	   
934889008	GAN31LU-A0U-7431000	3 + PE	10 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PVC, black	   
934889009	GAN31LU-A0U-7440200	3 + PE	2 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PUR, black	   
934889010	GAN31LU-A0U-7440500	3 + PE	5 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PUR, black	   
934889011	GAN31LU-A0U-7441000	3 + PE	10 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PUR, black	   
934889078	GAN31LU-A0U-6040200	3 + PE	2 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PUR, gray	   
934889079	GAN31LU-A0U-6040500	3 + PE	5 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PUR, gray	   
7947	GAN31LU-A0U-6041000	3 + PE	10 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PUR, gray	   
934889075	GAN31LU-A0U-6100200	3 + PE	2 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PVC, gray	   
934889076	GAN31LU-A0U-6100500	3 + PE	5 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PVC, gray	   
934889077	GAN31LU-A0U-6101000	3 + PE	10 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PVC, gray	   

Conversion table mm² to AWG on page 20.


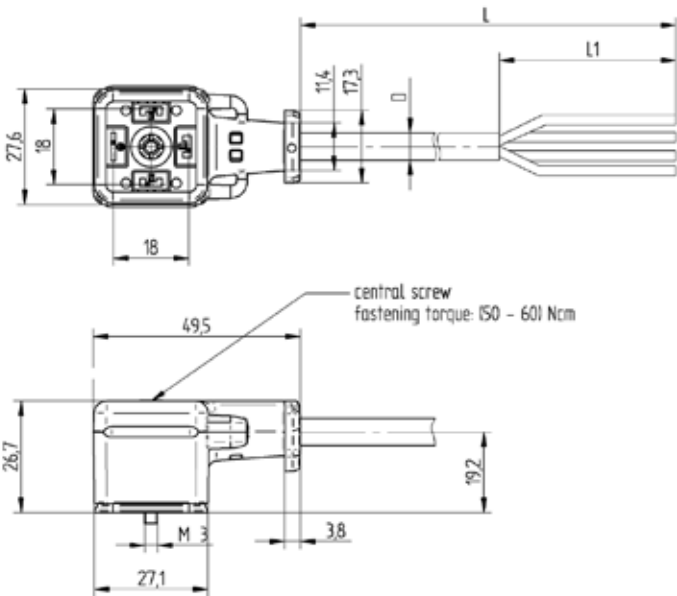
Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889587	GAN200U-A0U-6060200	2	2 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PUR, gray	    
934889588	GAN200U-A0U-6060500	2	5 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PUR, gray	    
10549	GAN200U-A0U-6061000	2	10 M	50 V AC/60 V DC, without LED	2 x 0.75 mm ²	PUR, gray	    
934889573	GAN210U-A0U-6030200	2 + PE	2 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	    
934889574	GAN210U-A0U-6030500	2 + PE	5 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	    
10550	GAN210U-A0U-6031000	2 + PE	10 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	    
934889583	GAN220U-A0U-6030200	2 + 2 PE	2 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	    
934889584	GAN220U-A0U-6030500	2 + 2 PE	5 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	    
10551	GAN220U-A0U-6031000	2 + 2 PE	10 M	230 V AC/DC, without LED	3 x 0.75 mm ²	PUR, gray	    
10552	GAN220U-A0U-2260200	2 + 2 PE	2 M	230 V AC/DC, without LED	3 x 0.50 mm ²	PUR, black	    
934889504	GAN220U-A0U-2260500	2 + 2 PE	5 M	230 V AC/DC, without LED	3 x 0.50 mm ²	PUR, black	    
934889505	GAN220U-A0U-2261000	2 + 2 PE	10 M	230 V AC/DC, without LED	3 x 0.50 mm ²	PUR, black	    
934889506	GAN310U-A0U-7430200	3 + PE	2 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PVC, black	    
934889507	GAN310U-A0U-7430500	3 + PE	5 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PVC, black	    
9647	GAN310U-A0U-7431000	3 + PE	10 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PVC, black	    
934889509	GAN310U-A0U-7440200	3 + PE	2 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PUR, black	    
934889510	GAN310U-A0U-7440500	3 + PE	5 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PUR, black	    
934889511	GAN310U-A0U-7441000	3 + PE	10 M	230 V AC/DC, without LED	4 x 0.50 mm ²	PUR, black	    
934889578	GAN310U-A0U-6040200	3 + PE	2 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PUR, gray	    
934889579	GAN310U-A0U-6040500	3 + PE	5 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PUR, gray	    
9641	GAN310U-A0U-6041000	3 + PE	10 M	230 V AC/DC, without LED	4 x 0.75 mm ²	PUR, gray	    

Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type A, Overmolded Female Connectors without Protection Circuit and LED

Technical Information

Product Description	
Order Designation	GAN22LU-L1X
	
Description	Valve connector GDM series, type A, female connector overmolded, with function indicator (yellow LED)
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE
Technical Data	
No. of Pins	2 + 2 PE
Ambient Temperature	-25 °C to +85 °C (with additional gasket: -40 °C/+105 °C)
Housing/Grip/Screw Coupling	TPU, gray translucent
Contact Holder	PA 66
Contact	CuZn
Central Screw	4.8, Fe/Zn B
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP67, IP68/IP69K with PUR cable (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Circuit	Yellow LED, no protection circuit
Operating Voltage	24 V AC/DC, 120 V AC/DC, 230 V AC/DC
Rated Current	10 A (cable: 0.75 mm ²), 6 A (cable: 0.5 mm ²)
Pollution Degree	3
Accessories	
Cable	PVC, PUR
Conductor Size	3 x 0.50 mm ² , 3 x 0.75 mm ²
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	735633002, GAN gasket 735656002, fixing clip for additional gasket
Technical Drawing	
	

Pin Assignment



Circuit Diagram




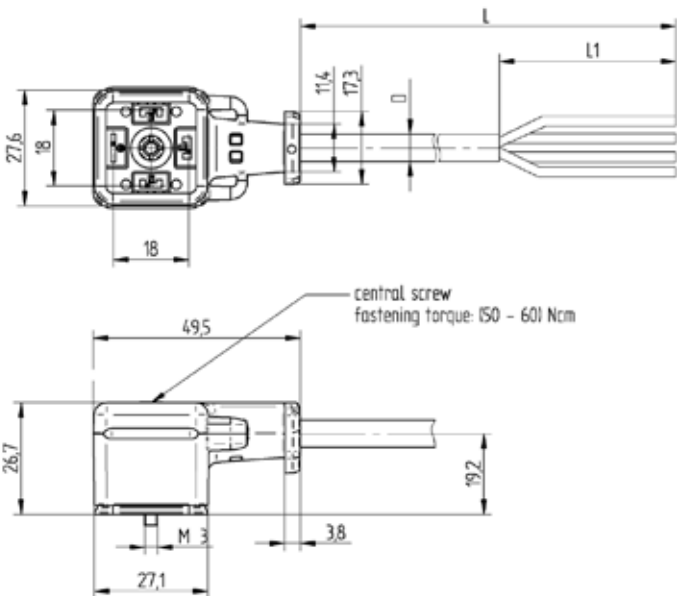
Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889024	GAN22LU-L11-2260200	2 + 2 PE	2 M	120 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889025	GAN22LU-L11-2260500	2 + 2 PE	5 M	120 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889026	GAN22LU-L11-2261000	2 + 2 PE	10 M	120 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889096	GAN22LU-L11-6030200	2 + 2 PE	2 M	120 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889097	GAN22LU-L11-6030500	2 + 2 PE	5 M	120 V AC/DC	3 x 0.75 mm ²	PUR, gray	
10553	GAN22LU-L11-6031000	2 + 2 PE	10 M	120 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889094	GAN22LU-L11-6090200	2 + 2 PE	2 M	120 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889095	GAN22LU-L11-6090500	2 + 2 PE	5 M	120 V AC/DC	3 x 0.75 mm ²	PVC, gray	
10554	GAN22LU-L11-6091000	2 + 2 PE	10 M	120 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889018	GAN22LU-L14-2120200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889019	GAN22LU-L14-2120500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889020	GAN22LU-L14-2121000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889021	GAN22LU-L14-2260200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889022	GAN22LU-L14-2260500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889023	GAN22LU-L14-2261000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889091	GAN22LU-L14-6030200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889092	GAN22LU-L14-6030275	2 + 2 PE	2.75 M	24 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889093	GAN22LU-L14-6030500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.75 mm ²	PUR, gray	
9389	GAN22LU-L14-6031000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889089	GAN22LU-L14-6090200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889090	GAN22LU-L14-6090500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.75 mm ²	PVC, gray	
10555	GAN22LU-L14-6091000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889027	GAN22LU-L1Y-2120200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889028	GAN22LU-L1Y-2120500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889029	GAN22LU-L1Y-2121000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889030	GAN22LU-L1Y-2260200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889031	GAN22LU-L1Y-2260500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889032	GAN22LU-L1Y-2261000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889100	GAN22LU-L1Y-6030200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889101	GAN22LU-L1Y-6030500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.75 mm ²	PUR, gray	
10556	GAN22LU-L1Y-6031000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889098	GAN22LU-L1Y-6090200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889099	GAN22LU-L1Y-6090500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.75 mm ²	PVC, gray	
10557	GAN22LU-L1Y-6091000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.75 mm ²	PVC, gray	

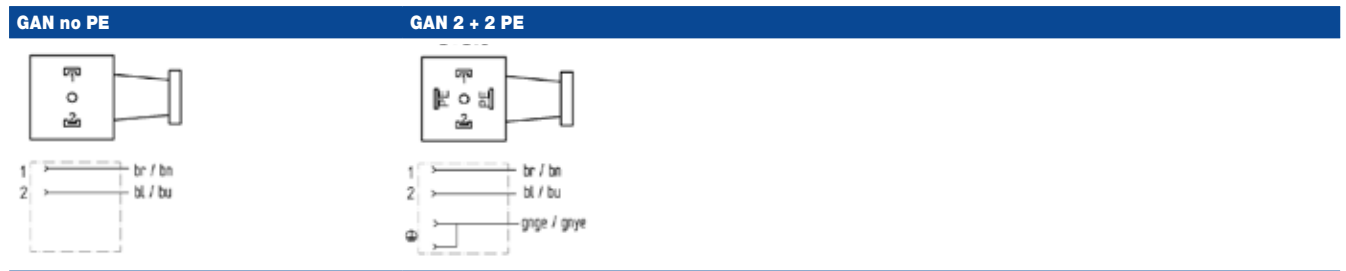
Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type A, Overmolded Female Connectors, Protection Circuit: Recovery Diode

Technical Information

Product Description	
Order Designation	GAN22LU-D24
	
Description	Valve connector GDM series, type A, female connector overmolded, with function indicator (yellow LED) and protection circuit (recovery diode)
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE
Technical Data	
No. of Pins	2, 2 + 2 PE
Ambient Temperature	-25 °C to +85 °C (with additional gasket: -40 °C/+105 °C)
Housing/Grip/Screw Coupling	TPU, gray translucent
Contact Holder	PA 66
Contact	CuZn
Central Screw	4.8, Fe/Zn B
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP67, IP68/IP69K with PUR cable (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Circuit	With/without yellow LED, recovery diode
Operating Voltage	24 V DC (recovery)
Rated Current	10 A (cable: 0.75 mm ²), 6 A (cable: 0.5 mm ²)
Pollution Degree	3
Accessories	
Cable	PVC, PUR
Conductor Size	2 x 0.75 mm ² , 3 x 0.50 mm ² , 3 x 0.75 mm ² , 4 x 0.50 mm ² , 4 x 0.75 mm ²
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	735633002, GAN gasket 735656002, fixing clip for additional gasket
Technical Drawing	
	

Pin Assignment



Circuit Diagram




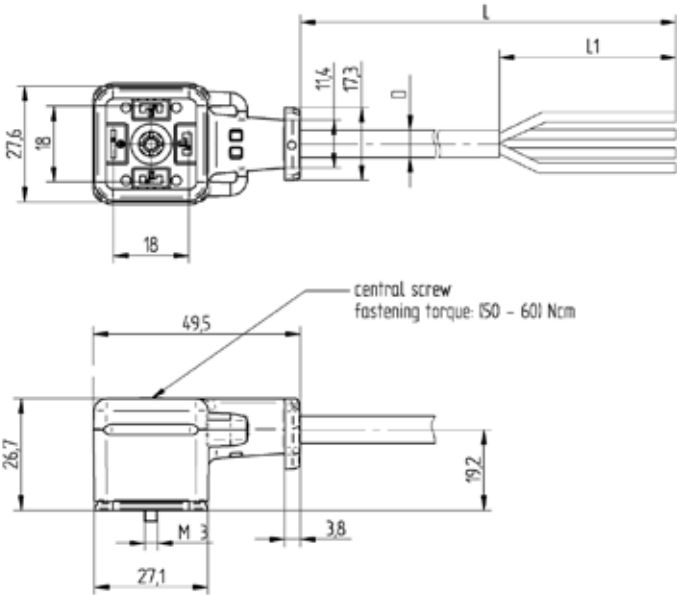
Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889012	GAN22LU-D24-2120200	2 + 2 PE	2 M	24 V DC	3 x 0.50 mm ²	PVC, black	
934889013	GAN22LU-D24-2120500	2 + 2 PE	5 M	24 V DC	3 x 0.50 mm ²	PVC, black	
934889014	GAN22LU-D24-2121000	2 + 2 PE	10 M	24 V DC	3 x 0.50 mm ²	PVC, black	
934889015	GAN22LU-D24-2260200	2 + 2 PE	2 M	24 V DC	3 x 0.50 mm ²	PUR, black	
934889016	GAN22LU-D24-2260500	2 + 2 PE	5 M	24 V DC	3 x 0.50 mm ²	PUR, black	
934889017	GAN22LU-D24-2261000	2 + 2 PE	10 M	24 V DC	3 x 0.50 mm ²	PUR, black	

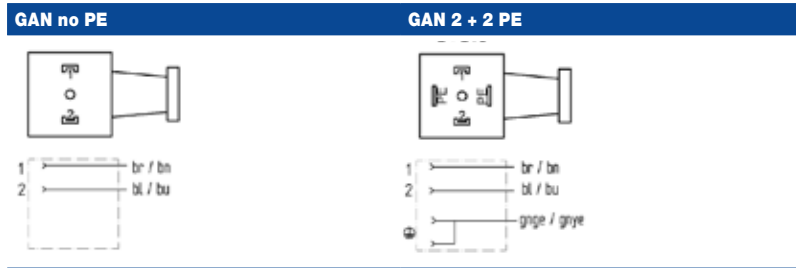
Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type A, Overmolded Female Connectors, Protection Circuit: Suppressor Diode

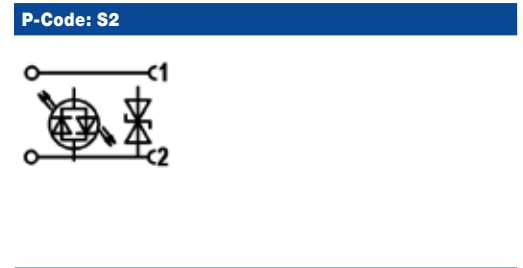
Technical Information

Product Description	
Order Designation	GAN2XLU-S2X
	
Description	Valve connector GDM series, type A, female connector overmolded, with function indicator (yellow LED) and protection circuit (suppressor diode)
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE
Technical Data	
No. of Pins	2, 2 + 2 PE
Ambient Temperature	-25 °C to +85 °C (with additional gasket: -40 °C/+105 °C)
Housing/Grip/Screw Coupling	TPU, gray translucent
Contact Holder	PA 66
Contact	CuZn
Central Screw	4.8, Fe/Zn B
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP67, IP68/IP69K with PUR cable (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Circuit	With/without yellow LED, suppressor diode
Operating Voltage	12 V AC/DC, 24 V AC/DC
Rated Current	10 A (cable: 0.75 mm ²), 6 A (cable: 0.5 mm ²)
Pollution Degree	3
Accessories	
Cable	PVC, PUR
Conductor Size	2 x 0.75 mm ² , 3 x 0.50 mm ² , 3 x 0.75 mm ²
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	735633002, GAN gasket 735656002, fixing clip for additional gasket
Technical Drawing	
	

Pin Assignment



Circuit Diagram





Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889119	GAN20LU-S22-6180200	2	2 M	12 V AC/DC	2 x 0.75 mm ²	PVC, gray	VDE, CE, RoHS, REACH
934889127	GAN20LU-S22-6180500	2	5 M	12 V AC/DC	2 x 0.75 mm ²	PVC, gray	VDE, CE, RoHS, REACH
934889121	GAN20LU-S22-6181000	2	10 M	12 V AC/DC	2 x 0.75 mm ²	PVC, gray	VDE, CE, RoHS, REACH
934889033	GAN22LU-S24-2120200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	VDE, CE, RoHS, REACH
934889034	GAN22LU-S24-2120500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	VDE, CE, RoHS, REACH
934889035	GAN22LU-S24-2121000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	VDE, CE, RoHS, REACH
934889036	GAN22LU-S24-2260200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	VDE, CE, RoHS, REACH
934889038	GAN22LU-S24-2260500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	VDE, CE, RoHS, REACH
934889039	GAN22LU-S24-2261000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	VDE, CE, RoHS, REACH
934889105	GAN22LU-S24-6030200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.75 mm ²	PUR, gray	VDE, CE, RoHS, REACH
934889106	GAN22LU-S24-6030500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.75 mm ²	PUR, gray	VDE, CE, RoHS, REACH
7935	GAN22LU-S24-6031000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.75 mm ²	PUR, gray	VDE, CE, RoHS, REACH
934889102	GAN22LU-S24-6090200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.75 mm ²	PVC, gray	VDE, CE, RoHS, REACH
934889103	GAN22LU-S24-6090500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.75 mm ²	PVC, gray	VDE, CE, RoHS, REACH
8322	GAN22LU-S24-6091000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.75 mm ²	PVC, gray	VDE, CE, RoHS, REACH

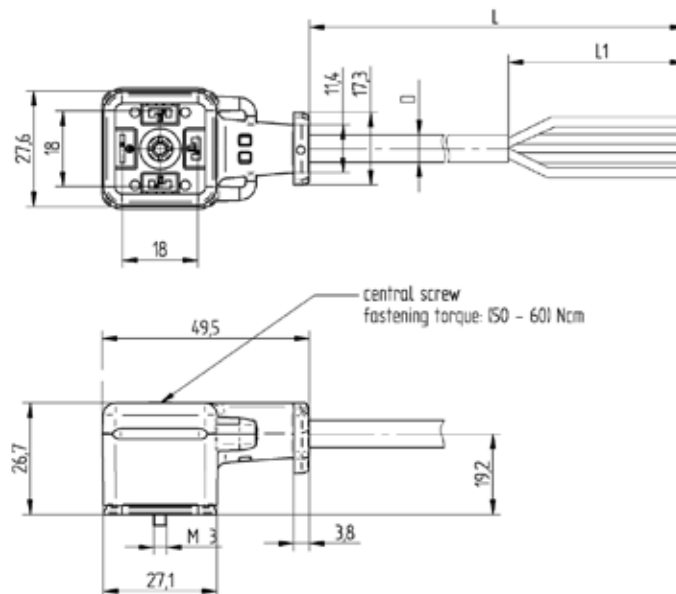
Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type A, Overmolded Female Connectors, for Pressure Switch Applications

Technical Information

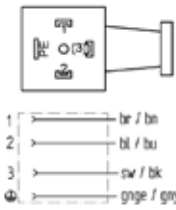
Product Description		
Order Designation	GAN31LU-P1M	GAN31LU-P2M
		
Description	Valve connector GDM series, type A, female connector overmolded, for pressure switches, status indicator for make/break contact	Valve connector GDM series, type A, female connector overmolded, for pressure switches, status indicator for operation/make contact
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	VDE	
Technical Data		
No. of Pins	3 + PE	
Ambient Temperature	-25 °C to +85 °C (with additional gasket: -40 °C/+105 °C)	
Housing/Grip/Screw Coupling	TPU, gray translucent	
Contact Holder	PA 66	
Contact	CuZn	
Central Screw	4.8, Fe/Zn B	
Flammability Class	HB	
Mechanical Data		
Degree of Protection	IP67, IP68/IP69K with PUR cable (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Circuit	Green/yellow LED, pressure switch: P1-P4 (operation)/P3-P4 (function)	
Operating Voltage	24 V AC/DC	
Rated Current	10 A (cable: 0.75 mm ²)	6 A (cable: 0.5 mm ²)
Pollution Degree	3	
Accessories		
Cable	PVC, PUR	
Conductor Size	3 x 0.50 mm ² , 3 x 0.75 mm ²	
Scope of Delivery or Accessories (incl.)	Central screw	
Accessories to be Ordered Separately	735633002, GAN gasket 735656002, fixing clip for additional gasket	

Technical Drawing



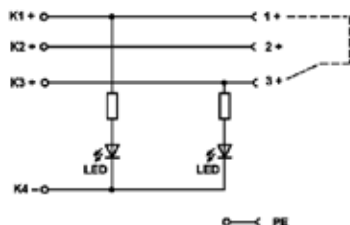
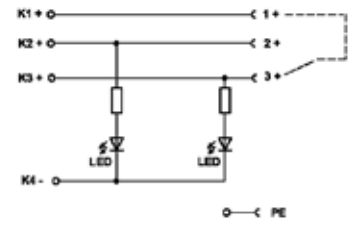
Pin Assignment

GAN 3 + PE



Circuit Diagram

P-Code: P1 **P-Code: P2**




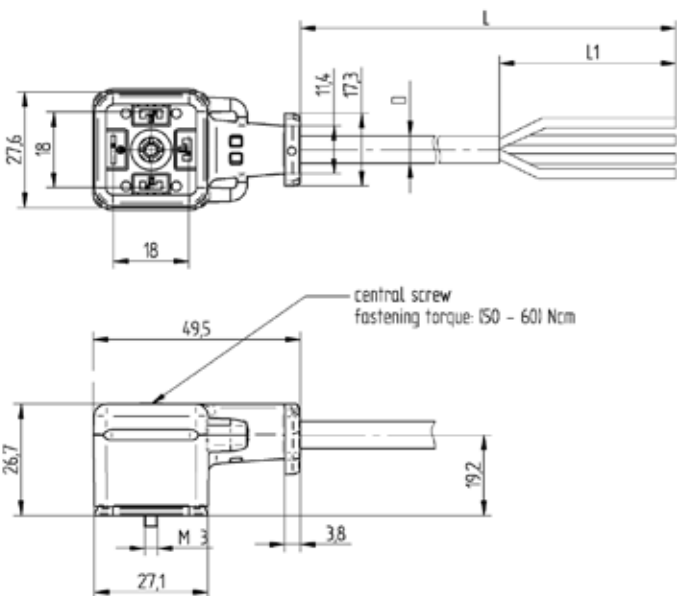
Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889109	GAN31LU-P1M-6110200	3 + PE	2M	24 V AC/DC	5 x 0.75 mm ²	PVC, gray	
934889110	GAN31LU-P1M-6110500	3 + PE	5M	24 V AC/DC	5 x 0.75 mm ²	PVC, gray	
10546	GAN31LU-P1M-6111000	3 + PE	10M	24 V AC/DC	5 x 0.75 mm ²	PVC, gray	
934889061	GAN31LU-P2M-2280200	3 + PE	2 M	24 V AC/DC	5 x 0.50 mm ²	PUR, black	
934889062	GAN31LU-P2M-2280500	3 + PE	5 M	24 V AC/DC	5 x 0.50 mm ²	PUR, black	
934889063	GAN31LU-P2M-2281000	3 + PE	10 M	24 V AC/DC	5 x 0.50 mm ²	PUR, black	
934889064	GAN3ZLU-P2M-2280200	3 + PE	2 M	24 V AC/DC	5 x 0.50 mm ²	PUR, black	
934889065	GAN3ZLU-P2M-2280500	3 + PE	5 M	24 V AC/DC	5 x 0.50 mm ²	PUR, black	
934889066	GAN3ZLU-P2M-2281000	3 + PE	10 M	24 V AC/DC	5 x 0.50 mm ²	PUR, black	
934889067	GAN3ZLU-P2M-2281500	3 + PE	15M	24 V AC/DC	5 x 0.50 mm ²	PUR, black	
10558	GAN3ZLU-P2M-2590200	3 + PE	2 M	24 V AC/DC	5 x 0.50 mm ²	PUR, orange	
934889068	GAN3ZLU-P2M-2590500	3 + PE	5 M	24 V AC/DC	5 x 0.50 mm ²	PUR, orange	
934889069	GAN3ZLU-P2M-2591000	3 + PE	10 M	24 V AC/DC	5 x 0.50 mm ²	PUR, orange	

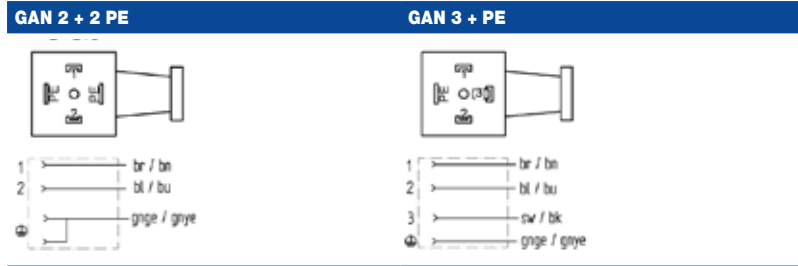
Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type A, Overmolded Female Connectors, Protection Circuit: Varistor

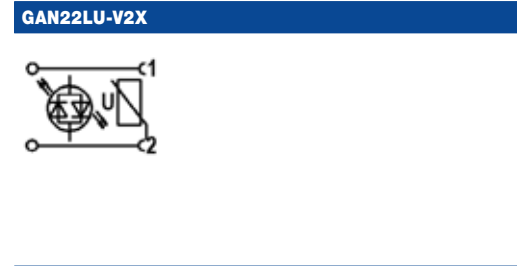
Technical Information

Product Description	
Order Designation	GAN22LU-V2X
	
Description	Valve connector GDM series, type A, female connector overmolded, with function indicator (yellow LED) and protection circuit (varistor)
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE
Technical Data	
No. of Pins	2 + 2 PE, 3 + PE
Ambient Temperature	-25 °C to +85 °C (with additional gasket: -40 °C/+105 °C)
Housing/Grip/Screw Coupling	TPU, gray translucent
Contact Holder	PA 66
Contact	CuZn
Central Screw	4.8, Fe/Zn B
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP67, IP68/IP69K with PUR cable (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Circuit	Yellow LED, varistor
Operating Voltage	24 V AC/DC, 120 V AC/DC, 230 V AC/DC
Rated Current	10 A (cable: 0.75 mm ²), 6 A (cable: 0.50 mm ²)
Pollution Degree	3
Accessories	
Cable	PVC, PUR
Conductor Size	3 x 0.50 mm ² , 3 x 0.75 mm ²
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	735633002, GAN gasket 735656002, fixing clip for additional gasket
Technical Drawing	
	

Pin Assignment



Circuit Diagram





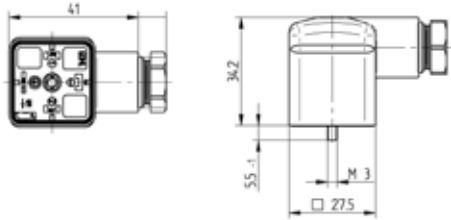
Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
934889040	GAN22LU-V21-2260200	2 + 2 PE	2 M	120 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889041	GAN22LU-V21-2260500	2 + 2 PE	5 M	120 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889042	GAN22LU-V21-2261000	2 + 2 PE	10 M	120 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889117	GAN22LU-V21-6030200	2 + 2 PE	2 M	120 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889118	GAN22LU-V21-6030500	2 + 2 PE	5 M	120 V AC/DC	3 x 0.75 mm ²	PUR, gray	
10559	GAN22LU-V21-6031000	2 + 2 PE	10 M	120 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889115	GAN22LU-V21-6090200	2 + 2 PE	2 M	120 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889116	GAN22LU-V21-6090500	2 + 2 PE	5 M	120 V AC/DC	3 x 0.75 mm ²	PVC, gray	
10560	GAN22LU-V21-6091000	2 + 2 PE	10 M	120 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889043	GAN22LU-V24-2120200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889044	GAN22LU-V24-2120300	2 + 2 PE	3 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889045	GAN22LU-V24-2120500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889046	GAN22LU-V24-2121000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889047	GAN22LU-V24-2260060	2 + 2 PE	0.6 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889048	GAN22LU-V24-2260200	2 + 2 PE	2 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889049	GAN22LU-V24-2260300	2 + 2 PE	3 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889050	GAN22LU-V24-2260500	2 + 2 PE	5 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889051	GAN22LU-V24-2261000	2 + 2 PE	10 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889052	GAN22LU-V24-2261500	2 + 2 PE	15 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889053	GAN22LU-V24-2262000	2 + 2 PE	20 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889054	GAN22LU-V24-2262500	2 + 2 PE	25 M	24 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889055	GAN22LU-V2Y-2120200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889056	GAN22LU-V2Y-2120500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889057	GAN22LU-V2Y-2121000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.50 mm ²	PVC, black	
934889058	GAN22LU-V2Y-2260200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889059	GAN22LU-V2Y-2260500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.50 mm ²	PUR, black	
934889060	GAN22LU-V2Y-2261000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.50 mm ²	PUR, black	
6446	GAN22LU-V2Y-6030200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889114	GAN22LU-V2Y-6030500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.75 mm ²	PUR, gray	
10563	GAN22LU-V2Y-6031000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.75 mm ²	PUR, gray	
934889111	GAN22LU-V2Y-6090200	2 + 2 PE	2 M	230 V AC/DC	3 x 0.75 mm ²	PVC, gray	
934889112	GAN22LU-V2Y-6090500	2 + 2 PE	5 M	230 V AC/DC	3 x 0.75 mm ²	PVC, gray	
10564	GAN22LU-V2Y-6091000	2 + 2 PE	10 M	230 V AC/DC	3 x 0.75 mm ²	PVC, gray	
6447	GAN31LU-V2Y-6040200	3 + PE	2 M	230 V AC/DC	4 x 0.75 mm ²	PUR, gray	

Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, no Circuit, with and without Bridge-rectifier

Technical Information











































Product Description		
Order Designation	GDMXXX-AOU	GDMXXX-D3U
		
Description	Valve connector GDM series, type A, female connector, field attachable	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	VDE, SEV	
Connectible Cables	Ø 4.5 to 10 mm	
Conductor Size	0.25 x 1.5 mm ²	
Technical Data		
No. of Pins	2 + PE, 3 + PE	2 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn	
Central Screw	4.8, Fe/Zn B	
O-Ring Material	SBR/NBR	
Flammability Class	HB	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	GDM31...: screw-type terminal, GDM3C: crimping
Electrical Data		
Circuit	None	No protection circuit with bridge rectifier
Contact Resistance	≤ 4 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	16 A	1 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Central screw	
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black</p> <p>735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown</p> <p>730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown</p> <p>731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown</p> <p>731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black</p> <p>735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7</p> <p>734363001, stainless steel screw, GDM 3011 RF-1</p> <p>735507002, torx screw, GDM 3011-18</p>	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black</p> <p>735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown</p> <p>730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown</p> <p>731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown</p> <p>731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black</p> <p>735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw: 732488002, knurled screw (gray), GDM 3011-7</p> <p>734363001, stainless steel screw, GDM 3011 RF-1</p> <p>735507002, torx screw, GDM 3011-18</p> <p>GDM3C.../ GDM3J... only: Crimp contact 732384002 RBCB 630</p>
Technical Drawing		
		

Additional options available upon request.

Circuit Diagram



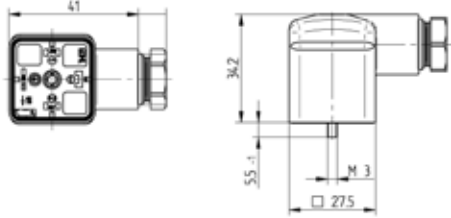


Order Information

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888100	GDM2106-A0U	2 + PE	—	M16 x 1.5	230 V AC/DC	16 A	VDE   
934888104	GDM2109-A0U	2 + PE	—	PG9	230 V AC/DC	16 A	VDE   
934888102	GDM210A-A0U	2 + PE	—	M20 x 1.5	230 V AC/DC	16 A	VDE   
934888106	GDM210B-A0U	3 + PE	—	PG11	230 V AC/DC	16 A	VDE   
934888108	GDM210D-A0U	2 + PE	—	½ NPTF	230 V AC/DC	16 A	VDE   
934888110	GDM210E-A0U	2 + PE	—	G½" ISO 228	230 V AC/DC	16 A	VDE   
934888101	GDM3106-A0U	3 + PE	—	M16 x 1.5	230 V AC/DC	16 A	VDE   
934888105	GDM3109-A0U	3 + PE	—	PG9	230 V AC/DC	16 A	VDE   
934888103	GDM310A-A0U	3 + PE	—	M20 x 1.5	230 V AC/DC	16 A	VDE   
934888107	GDM310B-A0U	3 + PE	—	PG11	230 V AC/DC	16 A	VDE   
934888109	GDM310D-A0U	3 + PE	—	½ NPTF	230 V AC/DC	16 A	VDE   
934888111	GDM310E-A0U	3 + PE	—	G½" ISO 228	230 V AC/DC	16 A	VDE   
934888013	GDM2106-D3U	2 + PE	Bridge rectifier	M16 x 1.5	230 V AC/DC	1 A	VDE   
934888049	GDM210A-D3U	2 + PE	Bridge rectifier	M20 x 1.5	230 V AC/DC	1 A	VDE   

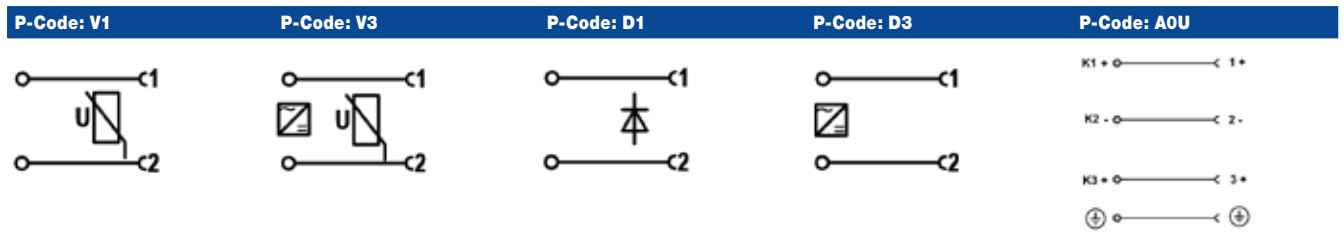
GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, UL, with/without Protection Circuit

Technical Information

Product Description		
Order Designation	GDMX1AX-A0U	GDM21AX-XXX
		
Description	Valve connector GDM series, type A, female connector, field attachable	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	UL, VDE, SEV, CSA	
Connectible Cables	M16 x 1.5/PG9: Ø 6 to 8 mm; M20 x 1.5/PG11: Ø 8 to 10 mm; 1/2" NPTF/G1/2" ISO: Ø 8 to 10 mm	
Conductor Size	0.25 x 1.5 mm ²	
Technical Data		
No. of Pins	2 + PE, 3 + PE	2 + PE
Ambient Temperature	-40 °C to +125 °C, notice derating	-25 °C to +90 °C, notice derating
Housing/Grip/Screw Coupling	PA 66	
Contact Holder	PA	
Contact	CuZn	
Central Screw	4.8, Fe/Zn B	
O-Ring Material	SBR/NBR	
Flammability Class	UL 94 5VA	
Mechanical Data		
Degree of Protection	IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	
Electrical Data		
Circuit	None	Varistor, recovery diode with/without bridge rectifier
Contact Resistance	≤ 4 mΩ	
Operating Voltage	230 V AC/DC, UL: 300 V AC/DC	24 V AC/DC, 120 V AC/DC, 230 V DC (recovery), 230 V AC/DC
Rated Current	10 A	10 A, 1 A (with bridge rectifier)
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Central screw	
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>	
Technical Drawing		
		

Additional options available upon request.

Circuit Diagram


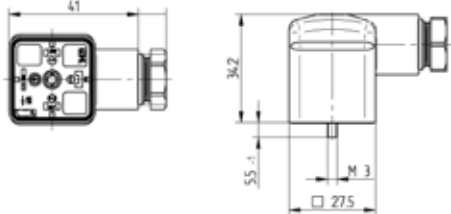


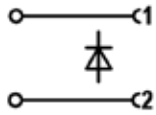
Order Information





Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
14640	GDM31AM-A0U-10F	3 + PE	–	M20 + strain relief	300 V AC/DC	10 A	
934888112	GDM21AL-A0U-10F	2 + PE	–	PG9 + strain relief	300 V AC/DC	10 A	
934888123	GDM21AN-A0U-10F	2 + PE	–	PG11 + strain relief	300 V AC/DC	10 A	
934888124	GDM21AJ-A0U-10F	2 + PE	–	M16 + strain relief	300 V AC/DC	10 A	
934888125	GDM31AN-A0U-10F	3 + PE	–	PG11 + strain relief	300 V AC/DC	10 A	
934888126	GDM31AJ-A0U-10F	3 + PE	–	M16 + strain relief	300 V AC/DC	10 A	
934888127	GDM31AL-A0U-10F	3 + PE	–	PG9 + strain relief	300 V AC/DC	10 A	
934888128	GDM31AQ-A0U-10F	3 + PE	–	1/2" NPTF + strain relief	300 V AC/DC	10 A	
934888133	GDM21AQ-A0U-10F	2 + PE	–	1/2" NPTF + strain relief	300 V AC/DC	10 A	
934888510	GDM21AJ-D1U	2 + PE	Recovery diode	M16 + strain relief	230 V DC	10 A	
934888513	GDM21AJ-D3U	2 + PE	Bridge rectifier	M16 + strain relief	230 V AC/DC	1 A	
934888531	GDM21AJ-V1Q	2 + PE	Varistor	M16 + strain relief	24 V AC/DC	10 A	
934888532	GDM21AJ-V1S	2 + PE	Varistor	M16 + strain relief	120 V AC/DC	10 A	
934888533	GDM21AJ-V1U-10D	2 + PE	Varistor	M16 + strain relief	230 V AC/DC	10 A	
934888537	GDM21AJ-V3S	2 + PE	Varistor, bridge rectifier	M16 + strain relief	120 V AC/DC	1 A	
934888538	GDM21AJ-V3U-10D	2 + PE	Varistor, bridge rectifier	M16 + strain relief	230 V AC/DC	1 A	

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: Recovery Diode

Technical Information


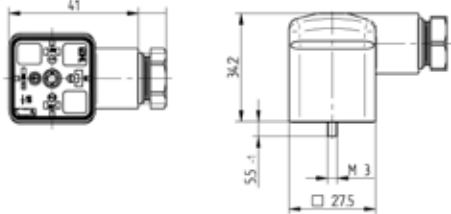
Product Description	
Order Designation	GDM210X-D1U
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Recovery diode
Contact Resistance	≤ 4 mΩ
Operating Voltage	230 V DC
Rated Current	10 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	

Circuit Diagram**P-Code: D1****Order Information**

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888010	GDM2106-D1U	2 + PE	Recovery diode	M16 x 1.5	230 V DC	10 A	VDE  
934888046	GDM210A-D1U	2 + PE	Recovery diode	M20 x 1.5	230 V DC	10 A	VDE  

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: Suppressor Diode

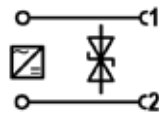
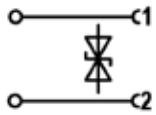
Technical Information

Product Description	
Order Designation	GDM210X-SXQ
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Suppressor diode with/without bridge rectifier
Contact Resistance	≤ 4 mΩ
Operating Voltage	24 V AC/DC
Rated Current	10 A, 1 A (with bridge rectifier)
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	









Circuit Diagram

P-Code: S1

P-Code: S3


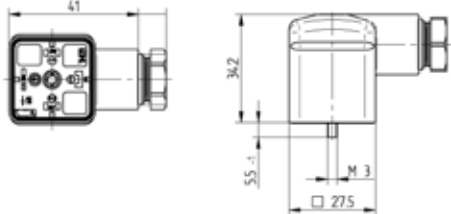


Order Information

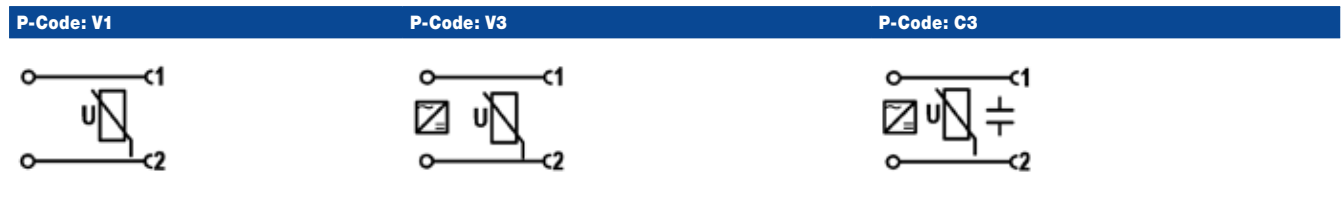
Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888025	GDM2106-S1Q	2 + PE	Suppressor diode	M16 x 1.5	24 V AC/DC	10 A	VDE  
934888061	GDM210A-S1Q	2 + PE	Suppressor diode	M20 x 1.5	24 V AC/DC	10 A	VDE  
934888028	GDM2106-S3Q	2 + PE	Suppressor diode, bridge rectifier	M16 x 1.5	24 V AC/DC	1 A	VDE  
934888064	GDM210A-S3Q	2 + PE	Suppressor diode, bridge rectifier	M20 x 1.5	24 V AC/DC	1 A	VDE  

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: Varistor











































Technical Information

Product Description	
Order Designation	GDM210X-XXX
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Varistor with/without bridge rectifier, with/without capacitor
Contact Resistance	≤ 4 mΩ
Operating Voltage	24 V AC/DC, 120 V AC/DC, 230 V AC/DC
Rated Current	10 A, 1 A (with bridge rectifier)
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	

Circuit Diagram


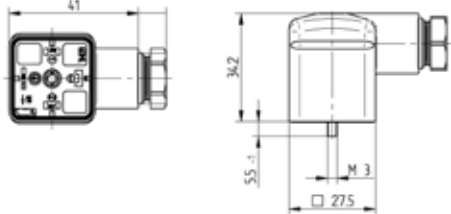


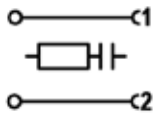
Order Information





Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888031	GDM2106-V1Q	2 + PE	Varistor	M16 x 1.5	24 V AC/DC	10 A	  
934888032	GDM2106-V1S	2 + PE	Varistor	M16 x 1.5	120 V AC/DC	10 A	  
934888033	GDM2106-V1U	2 + PE	Varistor	M16 x 1.5	230 V AC/DC	10 A	  
934888067	GDM210A-V1Q	2 + PE	Varistor	M20 x 1.5	24 V AC/DC	10 A	  
934888068	GDM210A-V1S	2 + PE	Varistor	M20 x 1.5	120 V AC/DC	10 A	  
934888069	GDM210A-V1U	2 + PE	Varistor	M20 x 1.5	230 V AC/DC	10 A	  
934888037	GDM2106-V3S	2 + PE	Varistor, bridge rectifier	M16 x 1.5	120 V AC/DC	1 A	  
934888038	GDM2106-V3U	2 + PE	Varistor, bridge rectifier	M16 x 1.5	230 V AC/DC	1 A	  
934888073	GDM210A-V3S	2 + PE	Varistor, bridge rectifier	M20 x 1.5	120 V AC/DC	1 A	  
934888074	GDM210A-V3U	2 + PE	Varistor, bridge rectifier	M20 x 1.5	230 V AC/DC	1 A	  
934888007	GDM2106-C3S	2 + PE	Varistor, bridge rectifier, capacitor	M16 x 1.5	120 V AC/DC	1 A	  
934888008	GDM2106-C3U	2 + PE	Varistor, bridge rectifier, capacitor	M16 x 1.5	230 V AC/DC	1 A	  
934888043	GDM210A-C3S	2 + PE	Varistor, bridge rectifier, capacitor	M20 x 1.5	120 V AC/DC	1 A	  
934888044	GDM210A-C3U	2 + PE	Varistor, bridge rectifier, capacitor	M20 x 1.5	230 V AC/DC	1 A	  

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: RC Filter

Technical Information


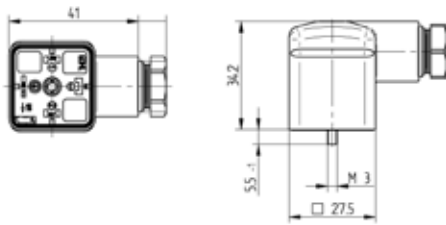
Product Description	
Order Designation	GDM210X-C1U
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	RC filter
Contact Resistance	≤ 4 mΩ
Operating Voltage	230 V AC/DC
Rated Current	10 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	

Circuit Diagram**P-Code: C1****Order Information**

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888005	GDM2106-C1U	2 + PE	RC filter	M16 x 1.5	230 V AC/DC	10 A	VDE  
934888041	GDM210A-C1U	2 + PE	RC filter	M20 x 1.5	230 V AC/DC	10 A	VDE  

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors without Protection Circuit, with/without Bridge-rectifier and LED

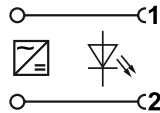
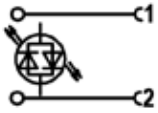
Technical Information

Product Description	
Order Designation	GDM21FX-XXX
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	No protection circuit with/without bridge rectifier
Contact Resistance	≤ 4 mΩ
Operating Voltage	12 V AC/DC, 24 V AC/DC, 48 V AC/DC, 120 V AC/DC, 230 V AC/DC
Rated Current	10 A, 1 A (with bridge rectifier)
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	

Circuit Diagram

P-Code: L1

P-Code: D4


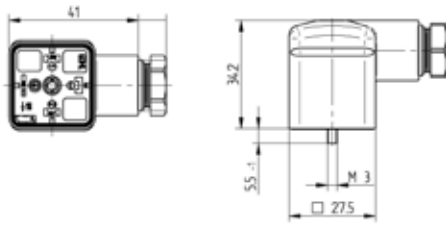


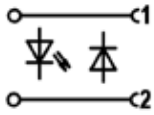
Order Information













Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888019	GDM21F6-L11	2 + PE	yellow LED	M16 x 1.5	120 V AC/DC	10 A	
934888016	GDM21F6-L12	2 + PE	yellow LED	M16 x 1.5	12 V AC/DC	10 A	
934888017	GDM21F6-L14	2 + PE	yellow LED	M16 x 1.5	24 V AC/DC	10 A	
934888018	GDM21F6-L18	2 + PE	yellow LED	M16 x 1.5	48 V AC/DV	10 A	
4382	GDM21F6-L1Y	2 + PE	yellow LED	M16 x 1.5	230 V AC/DC	10 A	
934888055	GDM21FA-L11	2 + PE	yellow LED	M20 x 1.5	120 V AC/DC	10 A	
934888052	GDM21FA-L12	2 + PE	yellow LED	M20 x 1.5	12 V AC/DC	10 A	
934888053	GDM21FA-L14	2 + PE	yellow LED	M20 x 1.5	24 V AC/DC	10 A	
934888054	GDM21FA-L18	2 + PE	yellow LED	M20 x 1.5	48 V AC/DC	10 A	
934888056	GDM21FA-L1Y	2 + PE	yellow LED	M20 x 1.5	230 V AC/DC	10 A	
934888014	GDM21F6-D44	2 + PE	yellow LED, bridge rectifier	M16 x 1.5	24 V AC/DC	1 A	
934888015	GDM21F6-D48	2 + PE	yellow LED, bridge rectifier	M16 x 1.5	48 V AC/DV	1 A	
934888050	GDM21FA-D44	2 + PE	yellow LED, bridge rectifier	M20 x 1.5	24 V AC/DC	1 A	
934888051	GDM21FA-D48	2 + PE	yellow LED, bridge rectifier	M20 x 1.5	48 V AC/DC	1 A	

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: Recovery Diode and LED

Technical Information


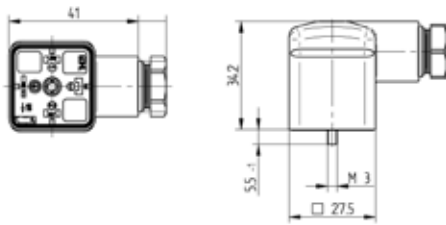
Product Description	
Order Designation	GDM21FX-D2X
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Recovery Diode
Contact Resistance	≤ 4 mΩ
Operating Voltage	24 V DC, 48 V DC
Rated Current	10 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	

Circuit Diagram**P-Code: D2****Order Information**

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
4398	GDM21F6-D24	2 + PE	yellow LED, recovery diode	M16 x 1.5	24 V DC	10 A	  
934888012	GDM21F6-D28	2 + PE	yellow LED, recovery diode	M16 x 1.5	48 V DC	10 A	  
934888047	GDM21FA-D24	2 + PE	yellow LED, recovery diode	M20 x 1.5	24 V DC	10 A	  
934888048	GDM21FA-D28	2 + PE	yellow LED, recovery diode	M20 x 1.5	48 V DC	10 A	  

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: Suppressor Diode and LED

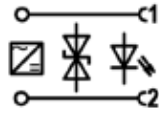
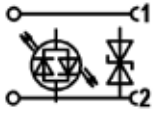
Technical Information

Product Description	
Order Designation	GDM21FX-SXX
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Suppressor diode with/without bridge rectifier
Contact Resistance	≤ 4 mΩ
Operating Voltage	12 V AC/DC, 24 V AC/DC
Rated Current	10 A, 1 A (with bridge rectifier)
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	















Circuit Diagram

P-Code: S2

P-Code: S4


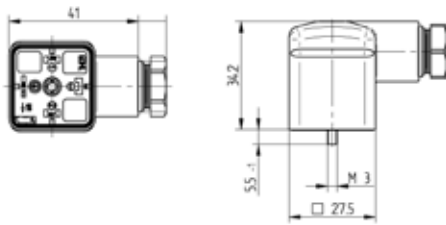


Order Information


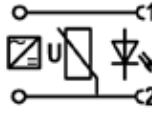
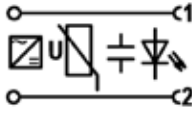
Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888026	GDM21F6-S22	2 + PE	yellow LED, suppressor diode	M16 x 1.5	12 V AC/DC	10 A	VDE  
934888027	GDM21F6-S24	2 + PE	yellow LED, suppressor diode	M16 x 1.5	24 V AC/DC	10 A	VDE  
934888062	GDM21FA-S22	2 + PE	yellow LED, suppressor diode	M20 x 1.5	12 V AC/DC	10 A	VDE  
934888063	GDM21FA-S24	2 + PE	yellow LED, suppressor diode	M20 x 1.5	24 V AC/DC	10 A	VDE  
934888029	GDM21F6-S44	2 + PE	yellow LED, suppressor diode, bridge rectifier	M16 x 1.5	24 V AC/DC	1 A	VDE   
934888065	GDM21FA-S44	2 + PE	yellow LED, suppressor diode, bridge rectifier	M20 x 1.5	24 V AC/DC	1 A	VDE   

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: Varistor and LED





































Technical Information

Product Description	
Order Designation	GDM21FX-XXX
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Varistor with/without bridge rectifier, with/without capacitor
Contact Resistance	≤ 4 mΩ
Operating Voltage	24 V AC/DC, 48 V AC/DC, 120 V AC/DC, 230 V AC/DC
Rated Current	10 A, 1 A (with bridge rectifier)
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	

Circuit Diagram


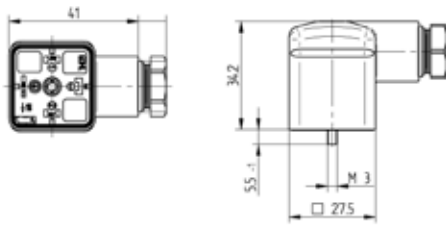
P-Code: V2	P-Code: V4	P-Code: C4
		

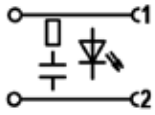
Order Information





Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888035	GDM21F6-V21	2 + PE	yellow LED, varistor	M16 x 1.5	120 V AC/DC	10 A	  
934888034	GDM21F6-V24	2 + PE	yellow LED, varistor	M16 x 1.5	24 V AC/DC	10 A	  
934888036	GDM21F6-V2Y	2 + PE	yellow LED, varistor	M16 x 1.5	230 V AC/DC	10 A	  
934888071	GDM21FA-V21	2 + PE	yellow LED, varistor	M20 x 1.5	120 V AC/DC	10 A	  
934888070	GDM21FA-V24	2 + PE	yellow LED, varistor	M20 x 1.5	24 V AC/DC	10 A	  
934888072	GDM21FA-V2Y	2 + PE	yellow LED, varistor	M20 x 1.5	230 V AC/DC	10 A	  
934888039	GDM21F6-V44	2 + PE	yellow LED, varistor, bridge rectifier	M16 x 1.5	24 V AC/DC	1 A	  
934888040	GDM21F6-V48	2 + PE	yellow LED, varistor, bridge rectifier	M16 x 1.5	48 V AC/DV	1 A	  
934888075	GDM21FA-V44	2 + PE	yellow LED, varistor, bridge rectifier	M20 x 1.5	24 V AC/DC	1 A	  
934888076	GDM21FA-V48	2 + PE	yellow LED, varistor, bridge rectifier	M20 x 1.5	48 V AC/DC	1 A	  
934888009	GDM21F6-C4Y	2 + PE	yellow LED, varistor, bridge rectifier, capacitor	M16 x 1.5	230 V AC/DC	1 A	  
934888045	GDM21FA-C4Y	2 + PE	yellow LED, varistor, bridge rectifier, capacitor	M20 x 1.5	230 V AC/DC	1 A	  

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Protection Circuit: RC Filter and LED

Technical Information



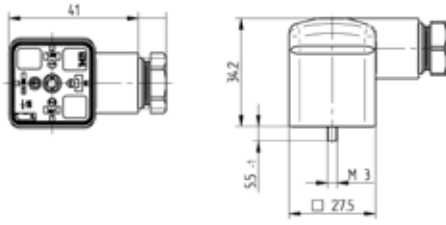
Product Description	
Order Designation	GDM21FX-C2Y
	
Description	Valve connector GDM series, type A, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-25 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	RC filter
Contact Resistance	≤ 4 mΩ
Operating Voltage	24 V AC/DC, 48 V AC/DC, 230 V AC/DC
Rated Current	10 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	<p>Gasket:</p> <p>735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw:</p> <p>732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>
Technical Drawing	
	

Circuit Diagram**P-Code: C2****Order Information**

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888006	GDM21F6-C2Y	2 + PE	yellow LED, RC filter	M16 x 1.5	230 V AC/DC	10 A	VDE  
934888042	GDM21FA-C2Y	2 + PE	yellow LED, RC filter	M20 x 1.5	230 V AC/DC	10 A	VDE  

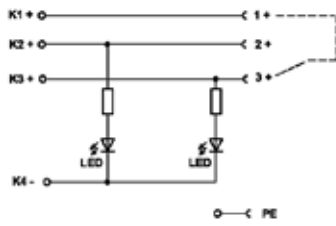
GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, for Pressure Switch Applications

Technical Information

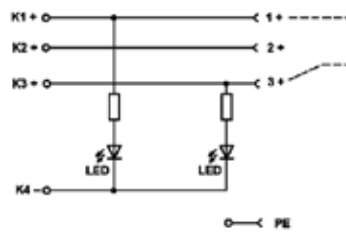
Product Description		
Order Designation	GDM31FX-P1X	GDM31FX-P2X
		
Description	Valve connector GDM series, type A, female connector field attachable, for pressure switches, status indicator for make/break contact	Valve connector GDM series, type A, female connector field attachable, for pressure switches, status indicator for operation/make contact
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	VDE, SEV	
Connectible Cables	Ø 4.5 to 10 mm	
Conductor Size	0.25 x 1.5 mm ²	
Technical Data		
No. of Pins	3 + PE	
Ambient Temperature	-25 °C to +90 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn	
Central Screw	4.8, Fe/Zn B	
O-Ring Material	SBR/NBR	
Flammability Class	HB	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	
Electrical Data		
Circuit	Green/yellow LED, pressure switch: P1-P4 (operation)/P3-P4 (function)	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	24 V DC, 230 V AC/DC	
Rated Current	10 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Central screw	
Accessories to be Ordered Separately	<p>Gasket: 735-677-003, NBR, Temp. range: -25 °C to +90 °C, captive gasket GDMF-6 NBR, black 735-677-004, EPDM, Temp. range: -25 °C to +120 °C, captive gasket GDMF-6 EPDM, brown 730-801-002, NBR, Temp. range: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731-739-004, EPDM, Temp. range: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731-531-002, NBR, Temp. range: -30 °C to +90 °C, profiled gasket GDM 3-16, black 735-823-002, EPDM Temp. range: -40 °C to +125 °C, profiled gasket GDM 3-24, brown</p> <p>Central screw: 732488002, knurled screw (gray), GDM 3011-7 734363001, stainless steel screw, GDM 3011 RF-1 735507002, torx screw, GDM 3011-18</p>	
Technical Drawing		
		

Circuit Diagram

















P-Code: P1



P-Code: P2



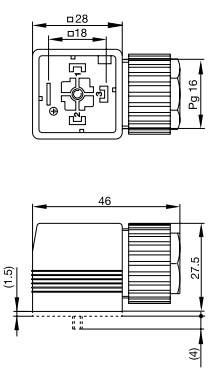
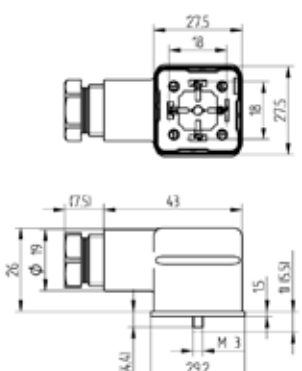
Order Information

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934888021	GDM31F6-P1J	3 + PE	red/green LED, no protection circuit	M16 x 1.5	24 V DC	10 A	VDE  
934888022	GDM31F6-P1N	3 + PE	red/green LED, no protection circuit	M16 x 1.5	230 V AC/DC	10 A	VDE  
934888023	GDM31F6-P2J	3 + PE	red/green LED, no protection circuit	M16 x 1.5	24 V DC	10 A	VDE  
934888024	GDM31F6-P2N	3 + PE	red/green LED, no protection circuit	M16 x 1.5	230 V AC/DC	10 A	VDE  
934888057	GDM31FA-P1J	3 + PE	red/green LED, no protection circuit	M20 x 1.5	24 V DC	10 A	VDE  
934888058	GDM31FA-P1N	3 + PE	red/green LED, no protection circuit	M20 x 1.5	230 V AC/DC	10 A	VDE  
934888059	GDM31FA-P2J-10D	3 + PE	red/green LED, no protection circuit	M20 x 1.5	24 V DC	10 A	VDE  
11108	GDM31FA-P2N	3 + PE	red/green LED, no protection circuit	M20 x 1.5	230 V AC/DC	10 A	VDE  

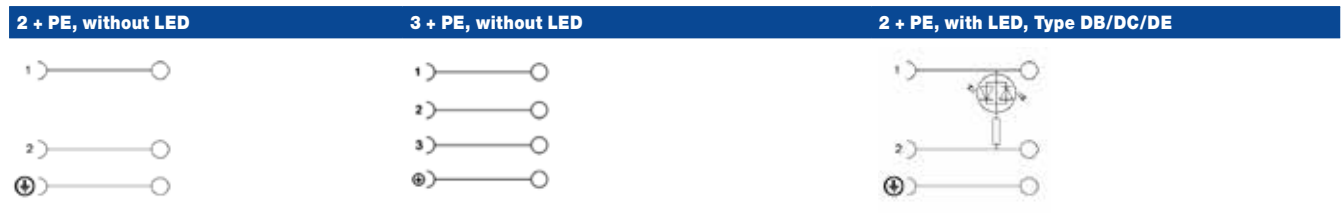
GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Flat-Line, no Circuit, with/without LED

Technical Information

















Product Description		
Order Designation	GDMF 3009	GDMF XX16 DXAA
		
Description	Valve connector GDM series, type A, female connector, field attachable, without LED	Valve connector GDM series, type A, female connector, field attachable, with/without LED
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	VDE, SEV	
Connectible Cables	Ø 6 to 7 mm	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²	
Technical Data		
No. of Pins	3 + PE	2 + PE, 3 + PE
Ambient Temperature	-40 °C to +90 °C (with PCB), -40 °C to +125 °C (without PCB)	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn	
Central Screw	4.8, Fe/Zn B	
O-Ring Material	SBR/NBR	
Flammability Class	HB	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	
Electrical Data		
Circuit	Unwired without LED, no protection circuit	Unwired with/without LED, no protection circuit with/without LED
Contact Resistance	≤ 4 mΩ	
Operating Voltage	230 V AC/DC	24 V AC/DC, 120 V AC/DC, 230 V AC/DC
Rated Current	10 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Central screw	
Accessories to be Ordered Separately	Gasket: 730801002, NBR, temp.: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731739004, EPDM, temp.: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731740002, MPQ, temp.: -40 °C to +125 °C, flat gasket GDM 3-17, red 731531002, NBR, temp.: -30 °C to +90 °C, profile gasket GDM 3-16, black 731532002, VMQ, temp.: -40 °C to +125 °C, profile gasket GDM 3-19, red 735823002, EPDM, temp.: -40 °C to +125 °C, profile gasket GDM 3-24, brown	

Technical Drawing	
	

Circuit Diagram


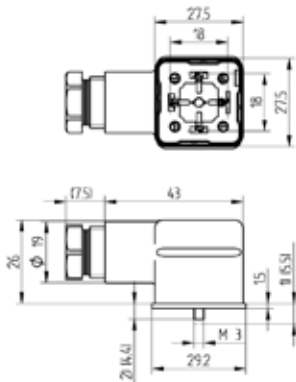


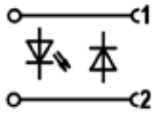
Order Information




Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
933944100	GDMF 3009 black	3 + PE	No protection circuit	PG16	230 V AC/DC	10 A	VDE  
934618001	GDMF 2016 DAAA	2 + PE	No protection circuit	M16 x 1.5	230 V AC/DC	10 A	VDE  
934618002	GDMF 3016 DAAA	3 + PE	No protection circuit	M16 x 1.5	230 V AC/DC	10 A	VDE  
934618010	GDMF 2116 DAAA	2 + PE	No protection circuit	M16 x 1.5	230 V AC/DC	10 A	UL  VDE 
934618011	GDMF 3116 DAAA	3 + PE	No protection circuit	M16 x 1.5	230 V AC/DC	10 A	UL  VDE 
934618003	GDMF 2016 DBAA	2 + PE	yellow LED, no protection circuit	M16 x 1.5	24 V AC/DC	10 A	VDE  
934618004	GDMF 2016 DCAA	2 + PE	yellow LED, no protection circuit	M16 x 1.5	120 V AC/DC	10 A	VDE  
934618005	GDMF 2016 DEAA	2 + PE	yellow LED, no protection circuit	M16 x 1.5	230 V AC/DC	10 A	VDE  

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Flat-Line, Protection Circuit: Recovery Diode and LED

Technical Information


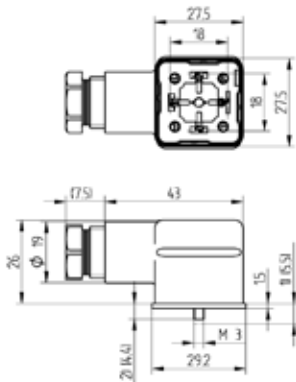
Product Description	
Order Designation	GDMF 2016 DGAA
	
Description	Valve connector GDM series, type A, female connector, field attachable, with LED
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-40 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Recovery diode, yellow LED
Contact Resistance	≤ 4 mΩ
Operating Voltage	24 V DC
Rated Current	10 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	Gasket: 730801002, NBR, temp.: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731739004, EPDM, temp.: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731740002, MPQ, temp.: -40 °C to +125 °C, flat gasket GDM 3-17, red 731531002, NBR, temp.: -30 °C to +90 °C, profile gasket GDM 3-16, black 731532002, VMQ, temp.: -40 °C to +125 °C, profile gasket GDM 3-19, red 735823002, EPDM, temp.: -40 °C to +125 °C, profile gasket GDM 3-24, brown
Technical Drawing	
	

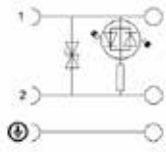
Circuit Diagram**2 + PE, with LED, Type DG****Order Information**

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934618007	GDMF 2016 DGAA	2 + PE	Recovery diode, yellow LED	M16 x 1.5	24 V DC	10 A	VDE   

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Flat-Line, Protection Circuit: Suppressor Diode and LED

Technical Information


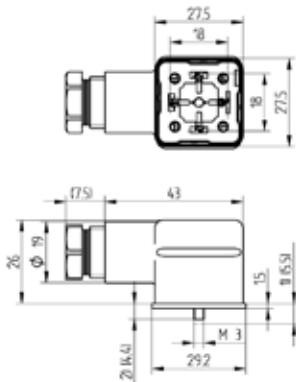
Product Description	
Order Designation	GDMF 2016 DFAA
	
Description	Valve connector GDM series, type A, female connector, field attachable, with LED
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-40 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Suppressor diode, yellow LED
Contact Resistance	≤ 4 mΩ
Operating Voltage	24 V AC/DC
Rated Current	10 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	Gasket: 730801002, NBR, temp.: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731739004, EPDM, temp.: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731740002, MPQ, temp.: -40 °C to +125 °C, flat gasket GDM 3-17, red 731531002, NBR, temp.: -30 °C to +90 °C, profile gasket GDM 3-16, black 731532002, VMQ, temp.: -40 °C to +125 °C, profile gasket GDM 3-19, red 735823002, EPDM, temp.: -40 °C to +125 °C, profile gasket GDM 3-24, brown
Technical Drawing	
	

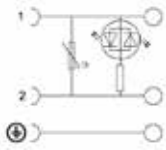
Circuit Diagram**2 + PE, with LED, Type DF****Order Information**





Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934618006	GDMF 2016 DFAA	2 + PE	yellow LED, suppressor diode	M16 x 1.5	24 V AC/DC	10 A	VDE   

GDM Series Valve Connectors, Type A, Field Attachable Female Connectors, Flat-Line, Protection Circuit: Varistor and LED

Technical Information



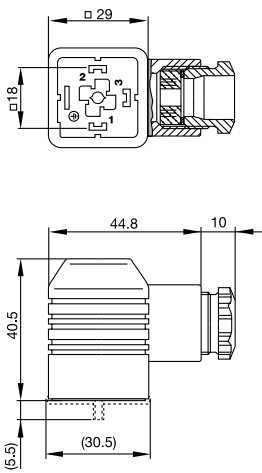
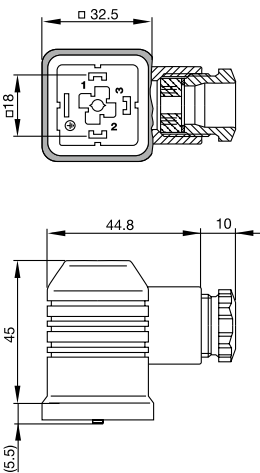
Product Description	
Order Designation	GDMF 2016 DXAA
	
Description	Valve connector GDM series, type A, female connector, field attachable, with LED
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175301-803-A
Approvals	VDE, SEV
Connectible Cables	Ø 4.5 to 10 mm
Conductor Size	0.25 x 1.5 mm ²
Technical Data	
No. of Pins	2 + PE
Ambient Temperature	-40 °C to +90 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn
Central Screw	4.8, Fe/Zn B
O-Ring Material	SBR/NBR
Flammability Class	HB
Mechanical Data	
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw
Electrical Data	
Circuit	Varistor, yellow LED
Contact Resistance	≤ 4 mΩ
Operating Voltage	120 V AC/DC, 230 V AC/DC
Rated Current	10 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Central screw
Accessories to be Ordered Separately	Gasket: 730801002, NBR, temp.: -30 °C to +90 °C, flat gasket GDM 3-7, brown 731739004, EPDM, temp.: -40 °C to +125 °C, flat gasket GDM 3-21, brown 731740002, MPQ, temp.: -40 °C to +125 °C, flat gasket GDM 3-17, red 731531002, NBR, temp.: -30 °C to +90 °C, profile gasket GDM 3-16, black 731532002, VMQ, temp.: -40 °C to +125 °C, profile gasket GDM 3-19, red 735823002, EPDM, temp.: -40 °C to +125 °C, profile gasket GDM 3-24, brown
Technical Drawing	
	

Circuit Diagram**2 + PE, with LED, Type DL/DR****Order Information**















Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
934618008	GDMF 2016 DLAA	2 + PE	Varistor, yellow LED	M16 x 1.5	230 V AC/DC	10 A	VDE  
934618009	GDMF 2016 DRAA	2 + PE	Varistor, yellow LED	M16 x 1.5	120 V AC/DC	10 A	VDE  

GDM Series Rectangular Connectors, Type A, Field Attachable Female Connectors, for High Temperature Applications

Technical Information

Product Description		
Order Designation	GDMW 3011 CF	GDMW 30XX DF
		
Description	Rectangular connector, type A for heating devices as per DIN VDE 0722 Section 1–2 and gas safety shut-off devices as per DIN 3394 Part 1, female connector, field attachable	Rectangular connector, type A for heating devices as per DIN VDE 0722 Section 1–2 and gas safety shut-off devices as per DIN 3394 Part 1, female connector, field attachable
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	VDE	
Connectible Cables	Ø 4.5 to 11 mm	Ø 4.5 to 11 mm, Ø 8 to 14 mm
Conductor Size	0.25 x 1.5 mm ²	
Technical Data		
No. of Pins	3 + PE	
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 10 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Central screw	Central screw
Accessories to be Ordered Separately	(NBR) flat gasket GDM 3-7, Order No. 730801002 (EPDM) flat gasket GDM 3-21, Order No. 731739004 Profile gasket GDM 3-16, Order No. 731531002 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001	(NBR) flat gasket GDM 3-7, Order No. 730801002 (EPDM) flat gasket GDM 3-21, Order No. 731739004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001
Technical Drawing		
		



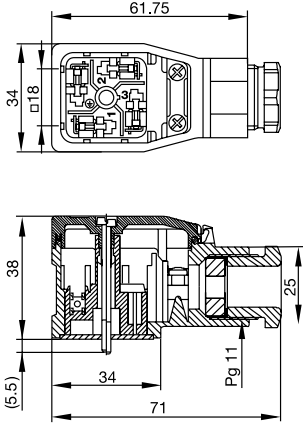
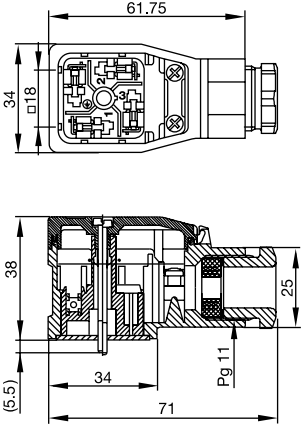
Order Information

Order No.	Order Designation	No. of Pins	Cable Gland	Operating Voltage	Rated Current	Characteristics
932545200	GDMW 3011 CF black	3 + PE	PG11	230 V AC/DC	16 A	    
932547200	GDMW 3011 DF black	3 + PE	PG11	230 V AC/DC	16 A	    
932643300	GDMW 3020 DF black	3 + PE	M20 x 1.5	230 V AC/DC	16 A	   






















Other housing colors available upon request.

GDM Series Rectangular Connectors, Type A, Field Attachable Female Connectors, for Special Applications

Technical Information



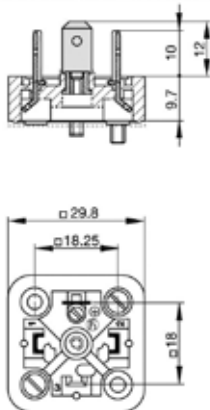
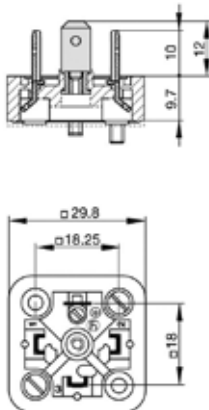
Product Description		
Order Designation	GDME X0XX	GDME 2011 Timer
		
Description	Rectangular connector, type A, female connector, field attachable with central screw M3 x 40, strain relief and transparent cover, electronic insert can be installed	Rectangular connector, type A, female connector, field attachable with central screw M3 x 40, strain relief and transparent cover, electronic insert can be installed
Note	–	Female connector with integrated timer switching, switch-on/off times independent of each other, adjustable via potentiometer, 8 different switching programs with function indicator (LED) and integrated protection circuit, gasket supplied
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175301-803-A	
Approvals	VDE in general/GL (for the non PCB-Version)	
Connectible Cables	Ø 4.5 to 11 mm, Ø 10 to 14 mm, Ø 8 to 14 mm	Ø 4.5 to 11 mm
Conductor Size	Max. 1.5 mm ²	
Technical Data		
No. of Pins	2 + PE, 3 + PE	2 + PE
Ambient Temperature	-40 °C to +125 °C	-30 °C to +60 °C
Housing/Grip/Screw Coupling		PA
Contact Holder		PA
Contact		SN
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	48 V AC/24 V DC
Rated Current	16 A	2 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Central screw	
Accessories to be Ordered Separately	(NBR) flat gasket GDM 3-7, Order No. 730801002 (EPDM) flat gasket GDM 3-21, Order No. 731739004 Knurled screw GDME 3N-7, Order No. 732280001 (For additional units see "Accessories.")	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
933029100	GDME 2011 black	2 + PE	No protection circuit	PG11	400 V AC/DC	16 A	  
933030100	GDME 2013 black	2 + PE	No protection circuit	PG13.5	400 V AC/DC	16 A	  
933034100	GDME 2014 black	2 + PE	No protection circuit	–	400 V AC/DC	16 A	  
933719100	GDME 2011 Timer black	2 + PE	LED, no protection circuit	PG11	48 V AC/24 V DC	1 A	  
933022100	GDME 3011 black	3 + PE	No protection circuit	PG11	400 V AC/DC	16 A	  
933031100	GDME 3013 black	3 + PE	No protection circuit	PG13.5	400 V AC/DC	16 A	  
934455100	GDME 3020 black	3 + PE	No protection circuit	M20 x 1.5	400 V AC/DC	16 A	  

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information



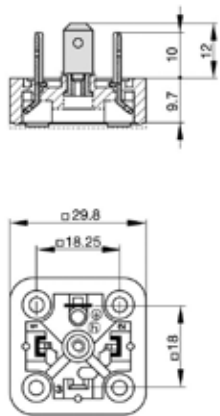
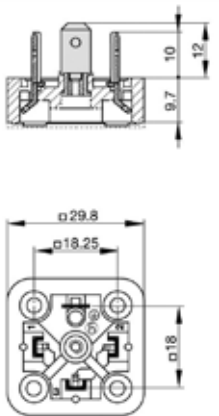
Product Description		
Order Designation	GSA 2000	GSA 3000
		
Description	Male appliance connector with retaining nut, 2 screws M3 x 10 and 1 screw M3 x 5, longitudinal slots, open nut	Male appliance connector with retaining nut, 2 screws M3 x 10 and 1 screw M3 x 4, longitudinal slots, open nut
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	UR, VDE, SEV, CSA	
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required; only when mounted and mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder, holes for soldering on both sides (ground contact: screw)	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GSA 200-4, Order No. 730843002 (EPDM) flat gasket GSA 200-7, Order No. 730268003	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
932591100	GSA 2000 black	2 + PE	solder, holes for soldering on both sides (ground contact: screw)
932597100	GSA 3000 black	3 + PE	solder, holes for soldering on both sides (ground contact: screw)

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information



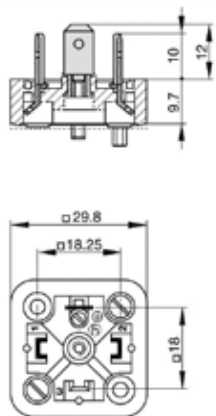
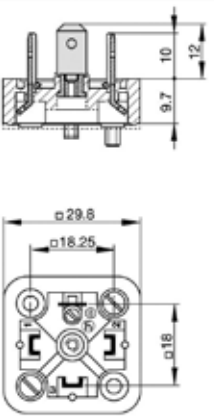
Product Description		
Order Designation	GSA 2000 A	GSA 3000 A
		
Description	Male appliance connector with retaining nut, no screws, longitudinal holes, closed nut	Male appliance connector with retaining nut, 2 screws M3 x 10 and 1 screw M3 x 5, open nut
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	UR, VDE, SEV, CSA	
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required; only when mounted and mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder (ground contact: screw)	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GSA 200-4, Order No. 730843002 (EPDM) flat gasket GSA 200-7, Order No. 730268003	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
932592500	GSA 2000 A black	2 + PE	solder (ground contact: screw)
932598500	GSA 3000 A black	3 + PE	solder (ground contact: screw)

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information



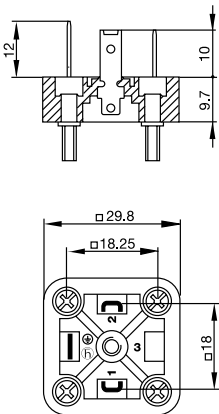
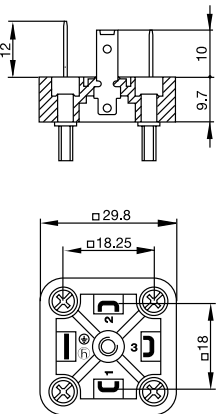
Product Description		
Order Designation	GSA 2000 N	GSA 3000 N
		
Description	Male appliance connector with retaining nut, 2 screws M3 x 10 and 1 screw M3 x 5, open nut	Male appliance connector with retaining nut, 2 screws M3 x 10 and 1 screw M3 x 5, open nut
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	UR, VDE, SEV, CSA	
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required; only when mounted and mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder (ground contact: screw)	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GSA 200-4, Order No. 730843002 (EPDM) flat gasket GSA 200-7, Order No. 730268003	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
932967100	GSA 2000 N black	2 + PE	solder (ground contact: screw)
932968100	GSA 3000 N black	3 + PE	solder (ground contact: screw)

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information


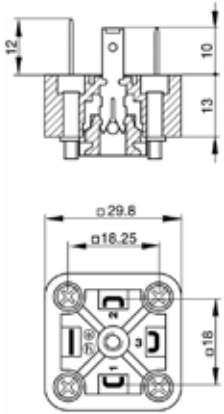
Product Description		
Order Designation	GSA-U 2000 N LO black	GSA-U 3000 N LO black
		
Description	Overmolded male appliance connector (IP65 unplugged), with 4 Phillips screws and solder lug for flexible cables	Overmolded male appliance connector (IP65 unplugged), with 4 Phillips screws and solder lug for flexible cables
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	UR	
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (when mounted with correct Hirschmann gasket)	
Terminal Type	Solder (ground contact: screw)	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GSA 200-4, Order No. 730843002 (EPDM) flat gasket GSA 200-7, Order No. 730268003	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
933378100	GSA-U 2000 N LO black	2 + PE	solder (ground contact: screw)
933379100	GSA-U 3000 N LO black	3 + PE	solder (ground contact: screw)

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information



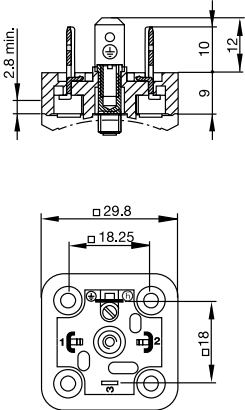
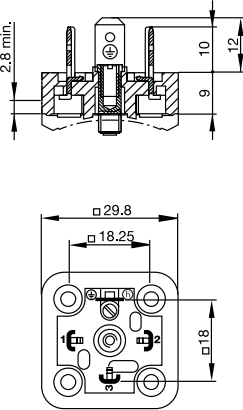
Product Description	
Order Designation	GSA-U 3075 SK black
	
Description	Overmolded male appliance connector (IP65 unplugged), with 4 Phillips screws and insulation displacement contact (without solder/screw)
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175 301-803-A
Approvals	UR
Technical Data	
No. of Pins	3 + PE
Ambient Temperature	-40 °C to +125 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	SN
Mechanical Data	
Degree of Protection	IP65 (when mounted with correct Hirschmann gasket)
Terminal Type	Insulation displacement contact (0.75 mm ²), bunched conductor diameter including insulation max. 2.4 mm
Electrical Data	
Circuit	No protection circuit
Contact Resistance	≤ 4 mΩ
Operating Voltage	400 V AC/DC
Rated Current	16 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200
Accessories to be Ordered Separately	(NBR) flat gasket GSA 200-4, Order No. 730843002 (EPDM) flat gasket GSA 200-7, Order No. 730268003
Technical Drawing	
	

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
933381100	GSA-U 3075 SK black	3 + PE	Insulation displacement contact (0.75 mm ²)

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information



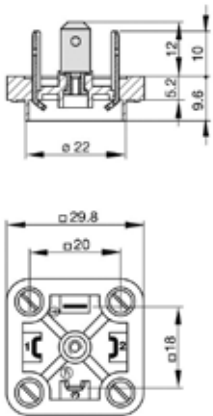
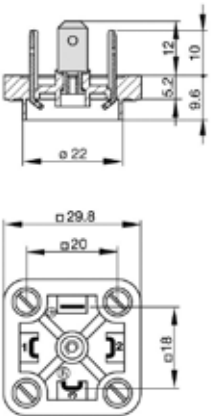
Product Description		
Order Designation	GSAZ 200 black	GSAZ 300 black
		
Description	Male appliance connector for cylinder profile gasket GSAZ, front connection, 1 hollow screw, 1 screw M3 x 5	Male appliance connector for cylinder profile gasket GSAZ, front connection, 1 hollow screw, 1 screw M3 x 5
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	UR, VDE, SEV	VDE, SEV
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when plugged in, only when mounted and mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder, holes for soldering on both sides (ground contact: screw)	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GSAZ 35/43, Order No. 733262002 (NBR) flat gasket GSAZ 40/62, Order No. 733264002 (NBR) flat gasket GSAZ 60/120, Order No. 733266002	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
932429100	GSAZ 200 black	2 + PE	solder, holes for soldering on both sides (ground contact: screw)
932430100	GSAZ 300 black	3 + PE	solder, holes for soldering on both sides (ground contact: screw)

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information


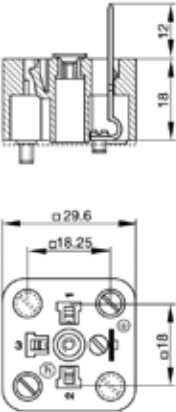
Product Description		
Order Designation	GSE 2000 N4	GSE 3000 N4
		
Description	Male appliance connector for installation in sheet metal, rotating round collar, retaining nut and 4 screws M3 x 6	Male appliance connector for installation in sheet metal, rotating round collar, retaining nut and 4 screws M3 x 6
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	VDE, SEV	
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when plugged in, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GSE 2000-2, Order No. 733973002 (EPDM) flat gasket GSA 200-7, Order No. 730268003	
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
932886100	GSE 2000 N4 black	2 + PE	solder
932890100	GSE 3000 N4 black	3 + PE	solder

GDM Series Rectangular Receptacle Connectors, Type A

Technical Information

Product Description	
Order Designation	GSC 300
	
Description	Male appliance connector with retaining nut, earthing contact, 2 screws M3 x 10 and 1 screw M3 x 5, without contacts
RoHS-Compliant (2011/65/EU)	Yes
(Construction Type) Standard	DIN EN 175 301-803-A
Approvals	VDE, SEV
Technical Data	
No. of Pins	2 + PE, 3 + PE
Ambient Temperature	-40 °C to +125 °C
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	SN
Mechanical Data	
Degree of Protection	IP65 (gasket required, only when plugged in, only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Crimping (ground contact: screw)
Electrical Data	
Circuit	No protection circuit
Contact Resistance	$\leq 4 \text{ m}\Omega$
Operating Voltage	400 V AC/DC
Rated Current	16 A
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200
Accessories to be Ordered Separately	(NBR) flat gasket GSA 200-4, Order No. 730843002 (EPDM) flat gasket GSA 200-7, Order No. 730268003 Crimp contacts RMC 480, Order No. 731470021 Crimping tool XZC 0702, Order No. 932507009
Technical Drawing	
	

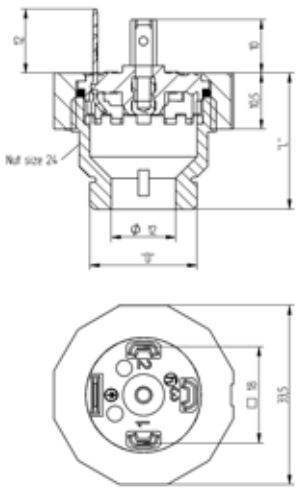
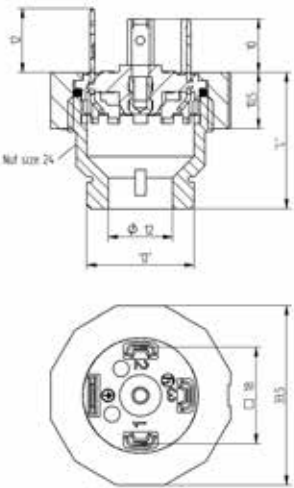
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
931382100	GSC 300 black	3 + PE	crimping (ground contact: screw)

GDM Series Round Receptacle Connectors, Type A

Technical Information

Product Description		
Order Designation	GSP 2XX XXX	GSP 3XX XXX
		
Description	Male appliance connector with connecting thread, grip ring, O-ring (NBR)	Male appliance connector with connecting thread, grip ring, O-ring (NBR)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	VDE, SEV	
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when plugged in, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	-	



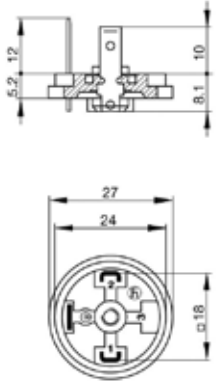
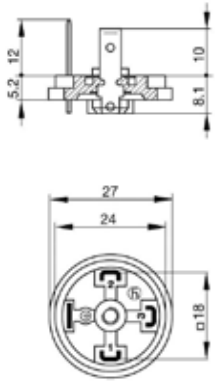
Technical Drawing																																		
 <table border="1"> <thead> <tr> <th>Typ / type</th> <th>Gewinde / thread "G"</th> <th>Länge / length "L"</th> </tr> </thead> <tbody> <tr> <td>GSP 231 PG11</td> <td>PG 11</td> <td>ca. 25,5 mm</td> </tr> <tr> <td>GSP 232 1/2" NPTF</td> <td>1/2" NPTF</td> <td>ca. 34,0 mm</td> </tr> <tr> <td>GSP 233 PG13.5</td> <td>PG 13.5</td> <td>ca. 25,5 mm</td> </tr> <tr> <td>GSP 2 M20</td> <td>M 20</td> <td>ca. 25,5 mm</td> </tr> </tbody> </table>	Typ / type	Gewinde / thread "G"	Länge / length "L"	GSP 231 PG11	PG 11	ca. 25,5 mm	GSP 232 1/2" NPTF	1/2" NPTF	ca. 34,0 mm	GSP 233 PG13.5	PG 13.5	ca. 25,5 mm	GSP 2 M20	M 20	ca. 25,5 mm	 <table border="1"> <thead> <tr> <th>Typ / type</th> <th>Gewinde / thread "G"</th> <th>Länge / length "L"</th> </tr> </thead> <tbody> <tr> <td>GSP 311 PG11</td> <td>PG 11</td> <td>ca. 25,5 mm</td> </tr> <tr> <td>GSP 312 1/2" NPTF</td> <td>1/2" NPTF</td> <td>ca. 34,0 mm</td> </tr> <tr> <td>GSP 313 PG13.5</td> <td>PG 13.5</td> <td>ca. 25,5 mm</td> </tr> <tr> <td>GSP 316 PG16</td> <td>PG 16</td> <td>ca. 25,5 mm</td> </tr> <tr> <td>GSP 3 M20</td> <td>M 20</td> <td>ca. 25,5 mm</td> </tr> </tbody> </table>	Typ / type	Gewinde / thread "G"	Länge / length "L"	GSP 311 PG11	PG 11	ca. 25,5 mm	GSP 312 1/2" NPTF	1/2" NPTF	ca. 34,0 mm	GSP 313 PG13.5	PG 13.5	ca. 25,5 mm	GSP 316 PG16	PG 16	ca. 25,5 mm	GSP 3 M20	M 20	ca. 25,5 mm
Typ / type	Gewinde / thread "G"	Länge / length "L"																																
GSP 231 PG11	PG 11	ca. 25,5 mm																																
GSP 232 1/2" NPTF	1/2" NPTF	ca. 34,0 mm																																
GSP 233 PG13.5	PG 13.5	ca. 25,5 mm																																
GSP 2 M20	M 20	ca. 25,5 mm																																
Typ / type	Gewinde / thread "G"	Länge / length "L"																																
GSP 311 PG11	PG 11	ca. 25,5 mm																																
GSP 312 1/2" NPTF	1/2" NPTF	ca. 34,0 mm																																
GSP 313 PG13.5	PG 13.5	ca. 25,5 mm																																
GSP 316 PG16	PG 16	ca. 25,5 mm																																
GSP 3 M20	M 20	ca. 25,5 mm																																

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Cable Gland
931298001	GSP 211 PG11 black	2 + PE	solder	PG11
931298004	GSP 212 1/2" NPTF black	2 + PE	solder	1/2" NPTF
931298003	GSP 213 PG13.5 black	2 + PE	solder	PG13.5
931298006	GSP 2 M20 black	2 + PE	solder	M20
931297001	GSP 311 PG11 black	3 + PE	solder	PG11
931297004	GSP 312 1/2" NPTF black	3 + PE	solder	1/2" NPTF
931297003	GSP 313 PG13.5 black	3 + PE	solder	PG13.5
931297002	GSP 316 PG16 black	3 + PE	solder	PG16
931297006	GSP 3 M20 black	3 + PE	solder	M20

GDM Series Round Receptacle Connectors, Type A

Technical Information

Product Description		
Order Designation	GSR-U 2000 LO	GSR-U 3000 LO
		
Description	Male appliance connector for overmolding (IP65), with solder lug for flexible cables	Male appliance connector for overmolding (IP65), with solder lug for flexible cables
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-A	
Approvals	UR	
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	SN	
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when plugged in, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	400 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	-	
Technical Drawing		
		

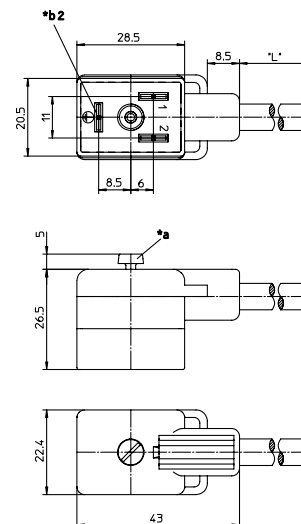
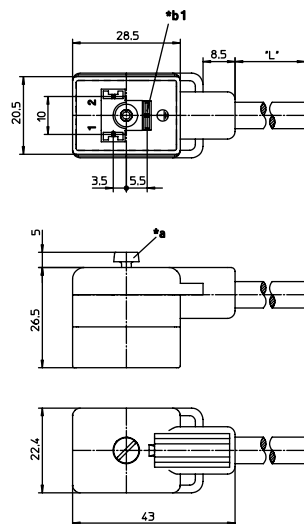
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
933377100	GSR-U 2000 LO black	2 + PE	solder
933376100	GSR-U 3000 LO black	3 + PE	solder

GDM Series Valve Connectors, Type B, Overmolded Female Connectors, DIN Standard and Industrial Standard, no Circuit

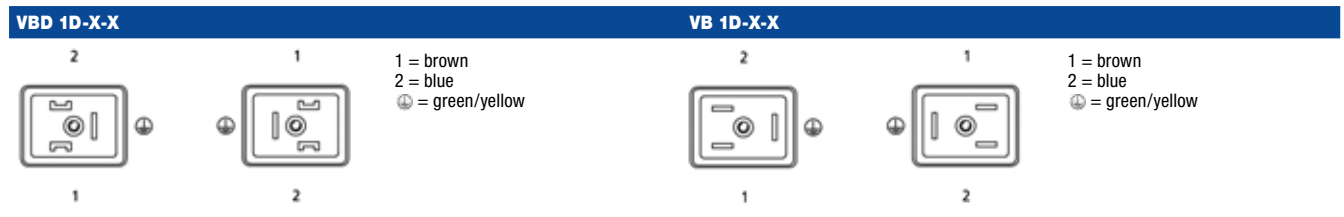
Technical Information

Product Description		
Order Designation	VBD 1D X-X	VB 1D-X-X
		
Description	DIN standard, no circuit	Industrial standard, no circuit
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	–	
Cables	PVC, PUR	
Connectible Cables	–	
Conductor Size	0.50 mm ² or 0.75 mm ²	
Technical Data		
No. of Pins		2 + PE
Ambient Temperature		-25 °C to +80 °C
Housing/Grip/Screw Coupling		TPU
Contact Holder		PBT
Contact		CuZn, tin-plated
Mechanical Data		
Degree of Protection		IP65 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data		
Circuit		No protection circuit
Contact Resistance		≤ 5 mΩ
Operating Voltage		230 V AC/DC
Rated Current		4 A
Pollution Degree		3
Accessories		
Scope of Delivery or Accessories (incl.)		–
Technical Drawing		



1D-X-X: L = Standard length of cable • *a = M3 screw • *b1 = Cable outlet 0°
 1D-X-X: L = Standard length of cable • *a = M3 screw • *b2 = Cable outlet 180°

Pin Assignment





Order Information

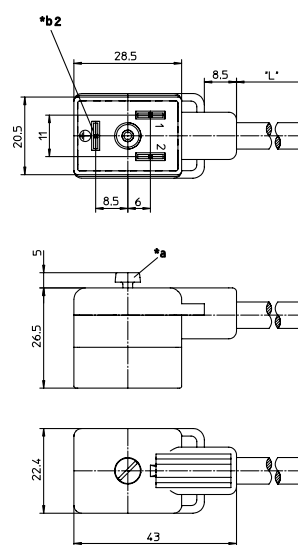
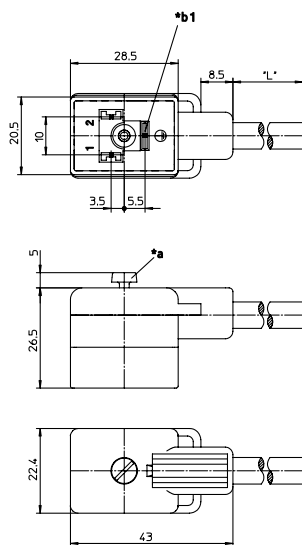
Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
12253	VBD 1D-3-1-205/2 M	2 + PE	2 M	230 V AC/DC	0.75 mm ²	PVC, black	
12254	VBD 1D-3-1-205/5 M	2 + PE	5 M	230 V AC/DC	0.75 mm ²	PVC, black	
2237	VBD 1D-3-1-205/10 M	2 + PE	10 M	230 V AC/DC	0.75 mm ²	PVC, black	
12255	VBD 1D-3-2-205/2 M	2 + PE	2 M	230 V AC/DC	0.75 mm ²	PVC, black	
12256	VBD 1D-3-2-205/5 M	2 + PE	5 M	230 V AC/DC	0.75 mm ²	PVC, black	
46943	VBD 1D-3-2-205/10 M	2 + PE	10 M	230 V AC/DC	0.75 mm ²	PVC, black	
12213	VB 1D-3-1-205/2 M	2 + PE	2 M	230 V AC/DC	0.75 mm ²	PVC, black	
12214	VB 1D-3-1-205/5 M	2 + PE	5 M	230 V AC/DC	0.75 mm ²	PVC, black	
46935	VB 1D-3-1-205/10 M	2 + PE	10 M	230 V AC/DC	0.75 mm ²	PVC, black	
12215	VB 1D-3-2-205/2 M	2 + PE	2 M	230 V AC/DC	0.75 mm ²	PVC, black	
12216	VB 1D-3-2-205/5 M	2 + PE	5 M	230 V AC/DC	0.75 mm ²	PVC, black	
46936	VB 1D-3-2-205/10 M	2 + PE	10 M	230 V AC/DC	0.75 mm ²	PVC, black	

Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type B, Overmolded Female Connectors, DIN Standard and Industrial Standard, Protection Circuit: Suppressor Diode with LED

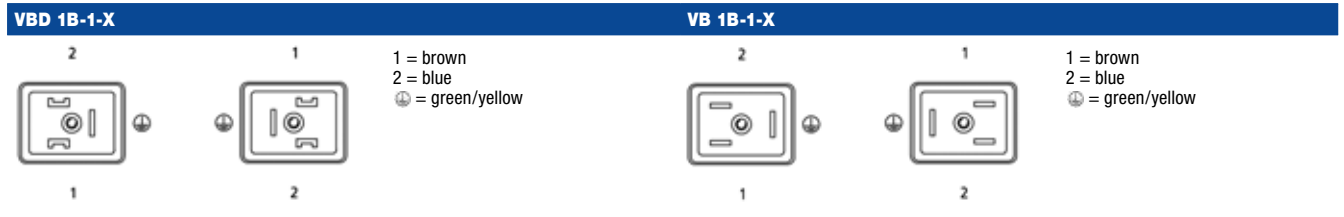
Technical Information

Product Description		
Order Designation	VBD 1B-1-X	VB 1B-1-X
		
Description	Valve connector GDM series, type B, DIN standard, female connector overmolded, with function indicator (LED) and protection circuit (suppressor diode)	Valve connector GDM series, type B, industrial standard, female connector overmolded, with function indicator (LED) and protection circuit (suppressor diode)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	-	
Cables	PVC, PUR	
Connectible Cables	-	
Conductor Size	3 x 0.5 mm ²	
Technical Data		
No. of Pins	2 + PE	
Ambient Temperature	-25 °C to +80 °C	
Housing/Grip/Screw Coupling	TPU	
Contact Holder	PBT	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Circuit	Suppressor diode with LED	
Contact Resistance	≤ 5 mΩ	
Operating Voltage	24 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Label, screw mounted	
Technical Drawing		



1B-1-1: L = Standard length of cable • *a = M3 screw • *b1 = Cable outlet 0°
 1B-1-2: L = Standard length of cable • *a = M3 screw • *b2 = Cable outlet 180°

Pin Assignment



Circuit Diagram





Order Information

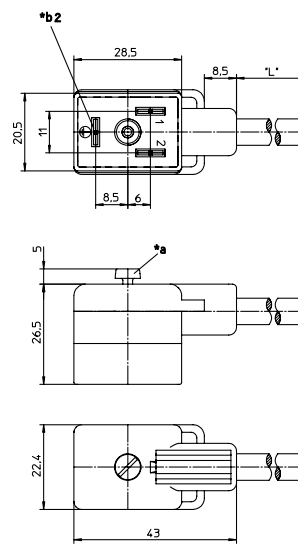
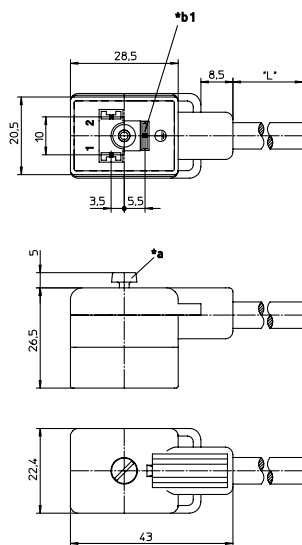
Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
12245	VBD 1B-1-1-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12246	VBD 1B-1-1-212/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
46938	VBD 1B-1-1-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
43899	VBD 1B-1-1-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, black	
44565	VBD 1B-1-1-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, black	
46939	VBD 1B-1-1-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, black	
12251	VBD 1B-1-2-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12252	VBD 1B-1-2-212/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
11099	VBD 1B-1-2-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
43901	VBD 1B-1-2-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, black	
43903	VBD 1B-1-2-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, black	
46941	VBD 1B-1-2-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, black	
12205	VB 1B-1-1-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12206	VB 1B-1-1-212/5M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
46931	VB 1B-1-1-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
16080	VB 1B-1-1-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, black	
44674	VB 1B-1-1-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, black	
46932	VB 1B-1-1-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, black	
12211	VB 1B-1-2-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12212	VB 1B-1-2-212/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
11098	VB 1B-1-2-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
16081	VB 1B-1-2-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, black	
44400	VB 1B-1-2-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, black	
46934	VB 1B-1-2-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, black	

Conversion table mm² to AWG on page 20.

GDM Series Valve Connectors, Type B, Overmolded Female Connectors, DIN Standard and Industrial Standard, Protection Circuit: Varistor with LED

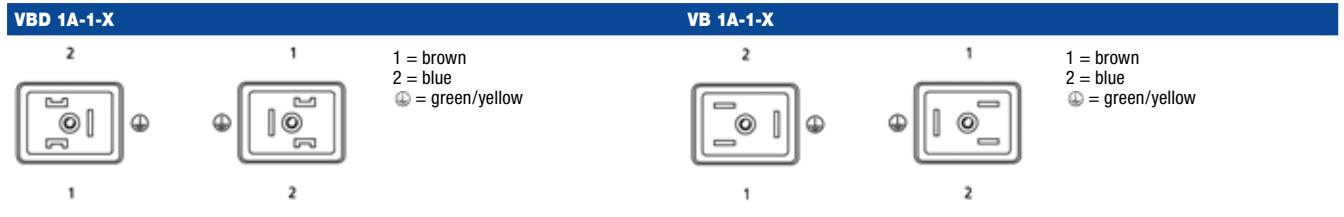
Technical Information

Product Description		
Order Designation	VBD 1A-1-X	VB 1A-1-X
		
Description	Valve connector GDM series, type B, DIN standard, female connector overmolded, with function indicator (LED) and protection circuit (varistor)	Valve connector GDM series, type B, industrial standard, female connector overmolded, with function indicator (LED) and protection circuit (varistor)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	-	
Cables	PVC, PUR	
Connectible Cables	-	
Conductor Size	0.50 or 0.75 mm ²	
Technical Data		
No. of Pins	2 + PE	
Ambient Temperature	-25 °C to +80 °C	
Housing/Grip/Screw Coupling	TPU	
Contact Holder	PBT	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Circuit	Varistor with LED	
Contact Resistance	≤ 5 mΩ	
Operating Voltage	24 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Label, screw mounted	
Technical Drawing		



1A-1-1: L = Standard length of cable • *a = M3 screw • *b1 = Cable outlet 0°
 1A-1-2: L = Standard length of cable • *a = M3 screw • *b2 = Cable outlet 180°

Pin Assignment



Circuit Diagram





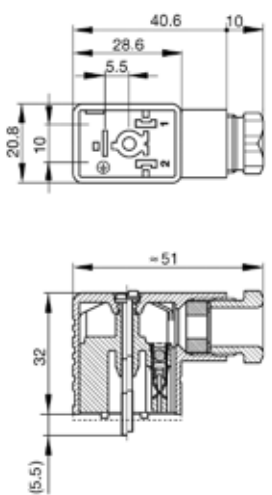
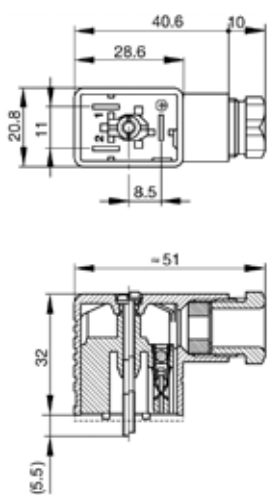
Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
12224	VBD 1A-1-1-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12225	VBD 1A-1-1-212/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
82466	VBD 1A-1-1-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
12226	VBD 1A-1-1-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, black	
12227	VBD 1A-1-1-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, black	
43895	VBD 1A-1-1-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, black	
12234	VBD 1A-1-2-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12235	VBD 1A-1-2-212/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
46937	VBD 1A-1-2-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
12236	VBD 1A-1-2-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, black	
12237	VBD 1A-1-2-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, black	
43897	VBD 1A-1-2-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, black	
12189	VB 1A-1-1-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12190	VB 1A-1-1-212/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
26742	VB 1A-1-1-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
43846	VB 1A-1-1-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, halogen-free, black	
43848	VB 1A-1-1-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, halogen-free, black	
43845	VB 1A-1-1-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, halogen-free, black	
12196	VB 1A-1-2-212/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PVC, black	
12197	VB 1A-1-2-212/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PVC, black	
46929	VB 1A-1-2-212/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PVC, black	
43889	VB 1A-1-2-226/2 M	2 + PE	2 M	24 V AC/DC	0.5 mm ²	PUR, halogen-free, black	
43891	VB 1A-1-2-226/5 M	2 + PE	5 M	24 V AC/DC	0.5 mm ²	PUR, halogen-free, black	
46930	VB 1A-1-2-226/10 M	2 + PE	10 M	24 V AC/DC	0.5 mm ²	PUR, halogen-free, black	

























Conversion table mm² to AWG on page 20.

GDM Series Rectangular Connectors, Type B, Field Attachable Female Connectors, DIN Standard and Industrial Standard, without Protection Circuit

Technical Information



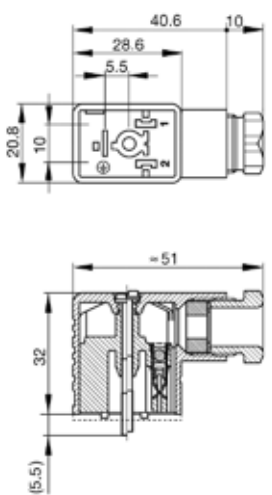
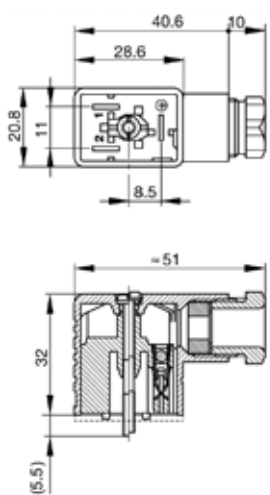
Product Description		
Order Designation	GMN 2XX NJ	GM 2XX NJ
		
Description	Valve connector GDM series, type B, DIN standard, without LED, without circuit	Valve connector GDM series, type B, industrial standard, without LED, without circuit
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-B	Industrial standard
Approvals	VDE/(UL)	
Connectible Cables	Ø 4.5 to 7 mm	
Conductor Size	max. 1.5 mm ²	
Technical Data		
No. of Pins	2 + PE	
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw/terminal lug/crimp ring	
Electrical Data		
Circuit	No protection circuit, no LED	
Contact Resistance	≤ 4 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	2 A	
Pollution Degree	3	
Accessories		
Accessories to be Ordered Separately	(NBR) flat gasket GMN 209-3, Order-No: 733273002 (EPDM) flat gasket GMN 209-12, Order-No: 733271004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001	(NBR) flat gasket GM 207-3, Order-No: 731423002 (EPDM) flat gasket GM 207-7, Order-No: 731755004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001
Technical Drawing		
		

Order Information































Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
932987100	GMN 209 NJ black	2 + PE	No protection circuit	PG9	230 V AC/DC	2 A	  
932987106	GMN 209 NJ gray	2 + PE	No protection circuit	PG9	230 V AC/DC	2 A	  
934457100	GMN 216 NJ black	2 + PE	No protection circuit	M16	230 V AC/DC	2 A	  
934457106	GMN 216 NJ gray	2 + PE	No protection circuit	M16	230 V AC/DC	2 A	  
932977100	GM 209 NJ black	2 + PE	No protection circuit	PG9	230 V AC/DC	2 A	  
932977106	GM 209 NJ gray	2 + PE	No protection circuit	PG9	230 V AC/DC	2 A	  
934456100	GM 216 NJ black	2 + PE	No protection circuit	M16	230 V AC/DC	2 A	  
934456106	GM 216 NJ gray	2 + PE	No protection circuit	M16	230 V AC/DC	2 A	  

GDM Series Rectangular Connectors, Type B, Field Attachable Female Connectors, DIN Standard and Industrial Standard, without Protection Circuit, LED

Technical Information



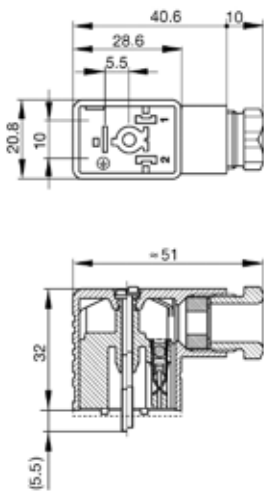
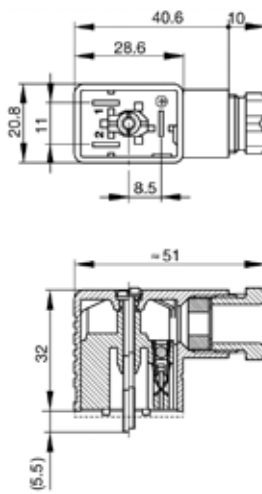
Product Description		
Order Designation	GML 2XX NJ LED	GML 2XX NJ LED
		
Description	Valve connector GM series, type B, DIN standard, with function indicator (LED), without protection circuit	Valve connector GM series, type B, industrial standard, with function indicator (LED), without protection circuit
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-B	Industrial standard
Approvals	VDE	
Connectible Cables	Ø 4.5 to 7 mm	
Conductor Size	max. 1.5 mm ²	
Technical Data		
No. of Pins	2 + PE	
Ambient Temperature	-40 °C to +90 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw/terminal lug/crimp ring	
Electrical Data		
Circuit	No protection circuit, with LED	
Contact Resistance	≤ 10 mΩ	
Operating Voltage	24 V AC/DC, 120 V AC/DC, 230 V AC/DC	
Rated Current	2 A	
Pollution Degree	3	
Accessories		
Accessories to be Ordered Separately	(NBR) flat gasket GMN 209-3, Order-No: 733273002 (EPDM) flat gasket GMN 209-12, Order-No: 733271004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001	(NBR) flat gasket GM 207-3, Order-No: 731423002 (EPDM) flat gasket GM 207-7, Order-No: 731755004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001
Technical Drawing		
		

Order Information

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
933572100	GMNL 209 NJ LED 24 YE black	2 + PE	No protection circuit, LED	PG9	24 V AC/DC	8 A	  
933714100	GMNL 209 NJ LED 120 YE black	2 + PE	No protection circuit, LED	PG9	120 V AC/DC	8 A	  
933715100	GMNL 209 NJ LED 230 YE black	2 + PE	No protection circuit, LED	PG9	230 V AC/DC	8 A	  
933715106	GMNL 209 NJ LED 230 YE gray	2 + PE	No protection circuit, LED	PG9	230 V AC/DC	8 A	  
933928100	GML 209 NJ LED 24 black	2 + PE	No protection circuit, LED	PG9	24 V AC/DC	2 A	 
933928106	GML 209 NJ LED 24 gray	2 + PE	No protection circuit, LED	PG9	24 V AC/DC	2 A	 
933931100	GML 209 NJ LED 230 black	2 + PE	No protection circuit, LED	PG9	230 V AC/DC	2 A	 
933571100	GML 209 NJ LED 24 YE black	2 + PE	No protection circuit, LED	M16	24 V AC/DC	2 A	 
933571106	GML 209 NJ LED 24 YE gray	2 + PE	No protection circuit, LED	M16	24 V AC/DC	2 A	 
933712100	GML 209 NJ LED 120 YE black	2 + PE	No protection circuit, LED	PG9	120 V AC/DC	2 A	 
933712106	GML 209 NJ LED 120 YE gray	2 + PE	No protection circuit, LED	PG9	120 V AC/DC	2 A	 
933713100	GML 209 NJ LED 230 YE black	2 + PE	No protection circuit, LED	PG9	230 V AC/DC	2 A	 
933713106	GML 209 NJ LED 230 YE gray	2 + PE	No protection circuit, LED	PG9	230 V AC/DC	2 A	 

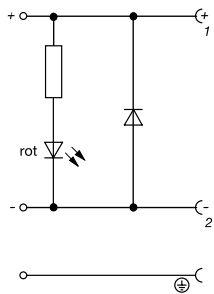
GDM Series Rectangular Connectors, Type B, Field Attachable Female Connectors, DIN Standard and Industrial Standard, Protection Circuit: Recovery Diode with LED

Technical Information

















Product Description		
Order Designation	GML 2XXX NJ LED 24 HH	GML 2XXX NJ LED 24 HH
		
Description	Valve connector GDM series, type B, DIN standard, female connector field attachable, with function indicator (LED) and protection circuit (recovery diode)	Valve connector GDM series, type B, industrial standard, female connector field attachable, with function indicator (LED) and protection circuit (recovery diode)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-B	Industrial standard
Approvals	VDE	
Connectible Cables	Ø 4.5 to 10 mm	
Conductor Size	max. 1.5 mm ²	
Technical Data		
No. of Pins	2 + PE	
Ambient Temperature	-40 °C to +90 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw/terminal lug/crimp ring	
Electrical Data		
Circuit	Recovery diode, red LED	
Contact Resistance	≤ 10 mΩ	
Operating Voltage	24 V DC	
Rated Current	8 A	
Pollution Degree	3	
Accessories		
Accessories to be Ordered Separately	(NBR) flat gasket GMN 209-3, Order-No: 733273002 (EPDM) flat gasket GMN 209-12, Order-No: 733271004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001	(NBR) flat gasket GM 207-3, Order-No: 731423002 (EPDM) flat gasket GM 207-7, Order-No: 731755004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001
Technical Drawing		
		

Circuit Diagram

GM(N)L 2XXX NJ LED 24 HH



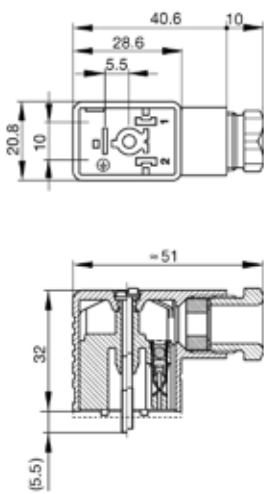
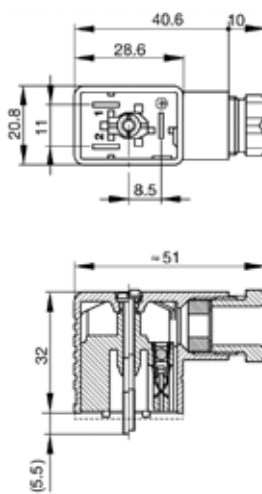


Order Information

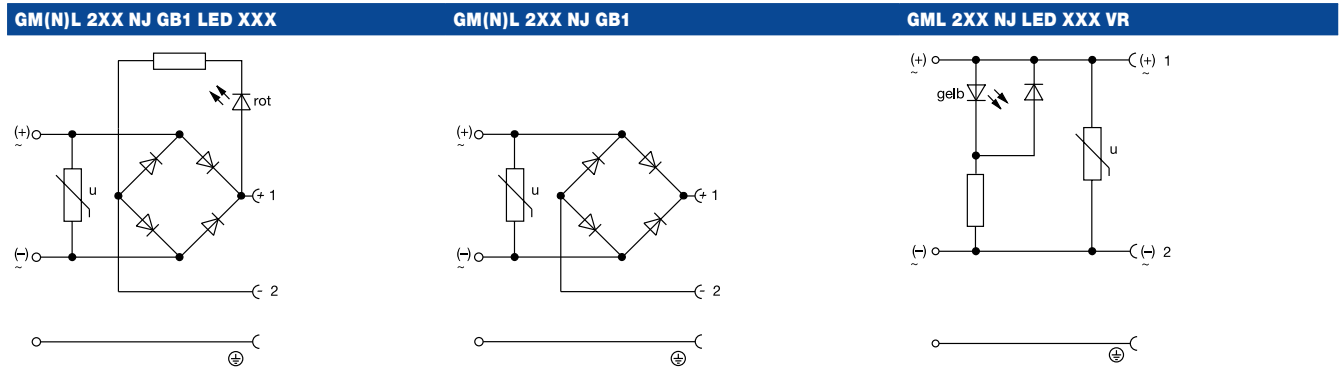
Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Connectible Cables	Characteristics
934460002	GMNL 216 NJ LED 24 HH black	2 + PE	Recovery diode, LED	M16	24 V DC	8 A	Ø 4.5 to 10 mm	VDE  
934460003	GMNL 216 NJ LED 24 HH gray	2 + PE	Recovery diode, LED	M16	24 V DC	8 A	Ø 4.5 to 10 mm	VDE  
933388100	GMNL 209 NJ LED 24 HH black	2 + PE	Recovery diode, LED	PG9	24 V DC	8 A	Ø 4.5 to 7 mm	VDE  
933388106	GMNL 209 NJ LED 24 HH gray	2 + PE	Recovery diode, LED	PG9	24 V DC	8 A	Ø 4.5 to 7 mm	VDE  
934458002	GML 216 NJ LED 24 HH black	2 + PE	Recovery diode, LED	M16	24 V DC	8 A	Ø 4.5 to 10 mm	VDE  
934458003	GML 216 NJ LED 24 HH gray	2 + PE	Recovery diode, LED	M16	24 V DC	8 A	Ø 4.5 to 10 mm	VDE  
933389100	GML 209 NJ LED 24 HH black	2 + PE	Recovery diode, LED	PG9	24 V DC	8 A	Ø 4.5 to 10 mm	VDE  
933389106	GML 209 NJ LED 24 HH gray	2 + PE	Recovery diode, LED	PG9	24 V DC	8 A	Ø 4.5 to 10 mm	VDE  

GDM Series Rectangular Connectors, Type B, Field Attachable Female Connectors, DIN Standard and Industrial Standard, Protection Circuit: Varistor with/without Bridge Rectifier, with/without LED

Technical Information

Product Description		
Order Designation	GML 2XX NJ LED XXX XXX	GML 2XX NJ LED XXX XXX
		
Description	Valve connector GDM series, type B, DIN standard, female connector field attachable, with/without function indicator (LED) and protection circuit (varistor with bridge rectifier)	Valve connector GDM series, type B, industrial standard, female connector field attachable, with/without function indicator (LED) and protection circuit (varistor with/without bridge rectifier)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-B	Industrial standard
Approvals	VDE	
Connectible Cables	Ø 4.5 to 10 mm	
Conductor Size	max. 1.5 mm ²	
Technical Data		
No. of Pins	2 + PE	
Ambient Temperature	-40 °C to +90 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw/terminal lug/crimp ring	
Electrical Data		
Circuit	Varistor with bridge rectifier, with/without LED	Varistor with/without bridge rectifier, with/without LED
Contact Resistance	≤ 10 mΩ	
Operating Voltage	24 V AC/DC, 230 V AC/DC	24 V AC/DC, 120 V AC/DC, 230 V AC/DC
Rated Current	2 A	
Pollution Degree	3	
Accessories		
Accessories to be Ordered Separately	(NBR) flat gasket GMN 209-3, Order-No: 733273002 (EPDM) flat gasket GMN 209-12, Order-No: 733271004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001	(NBR) flat gasket GM 207-3, Order-No: 731423002 (EPDM) flat gasket GM 207-7, Order-No: 731755004 Knurled screw GDM 3011-8, Order No. 732574001 Stainless steel screw GDM 3011 RF-1, Order No. 734363001
Technical Drawing		
		

Circuit Diagram



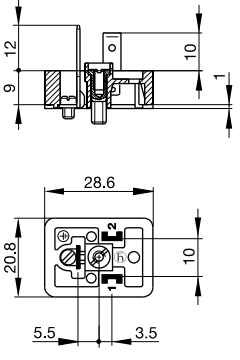
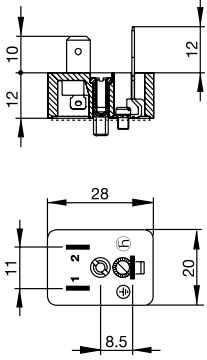


Order Information





Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
933399100	GMNL 209 NJ GB1 black	2 + PE	Varistor, bridge rectifier	PG9	230 V AC/DC	2 A	
933399106	GMNL 209 NJ GB1 gray	2 + PE	Varistor, bridge rectifier	PG9	230 V AC/DC	2 A	
933400100	GMNL 209 NJ GB1 LED 24 black	2 + PE	Varistor, bridge rectifier, LED	PG9	24 V AC/DC	2 A	
933398100	GML 209 NJ GB1 black	2 + PE	Varistor, bridge rectifier	PG9	230 V AC/DC	2 A	
933398106	GML 209 NJ GB1 gray	2 + PE	Varistor, bridge rectifier	PG9	230 V AC/DC	2 A	
933642100	GML 209 NJ GB1 LED 24 black	2 + PE	Varistor, bridge rectifier, LED	PG9	24 V AC/DC	2 A	
933642106	GML 209 NJ GB1 LED 24 gray	2 + PE	Varistor, bridge rectifier, LED	PG9	24 V AC/DC	2 A	
933933100	GML 209 NJ GB1 LED 230 black	2 + PE	Varistor, bridge rectifier, LED	PG9	230 V AC/DC	2 A	
933933106	GML 209 NJ GB1 LED 230 gray	2 + PE	Varistor, bridge rectifier, LED	PG9	230 V AC/DC	2 A	
934459002	GML 216 NJ LED 24 VR YE black	2 + PE	Varistor, LED	M16	24 V AC/DC	2 A	
934459003	GML 216 NJ LED 24 VR YE gray	2 + PE	Varistor, LED	M16	24 V AC/DC	2 A	
933929100	GML 209 NJ LED 24 VR YE black	2 + PE	Varistor, LED	PG9	24 V AC/DC	2 A	
933929106	GML 209 NJ LED 24 VR YE gray	2 + PE	Varistor, LED	PG9	24 V AC/DC	2 A	
933934100	GML 209 NJ LED 120 VR YE black	2 + PE	Varistor, LED	PG9	120 V AC/DC	2 A	
933932100	GML 209 NJ LED 230 VR YE black	2 + PE	Varistor, LED	PG9	230 V AC/DC	2 A	
933932106	GML 209 NJ LED 230 VR YE gray	2 + PE	Varistor, LED	PG9	230 V AC/DC	2 A	

GDM Series Rectangular Connectors, Type B, Female Receptacle Connectors, DIN Standard and Industrial Standard

Technical Information



Product Description		
Order Designation	GSN 20	GSA 20
		
Description	Male appliance with central screw (hollow), 1 screw M3 x 4	
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803-B	Industrial standard (11 mm)
Approvals	UR, VDE, SEV, CSA	UR, VDE, SEV
Technical Data		
No. of Pins	2 + PE	3 + PE
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA	
Contact Holder	PA	
Contact	CuZn, tin-plated	Sn
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder	Solder (ground contact: screw)
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	16 A	
Pollution Degree	3	
Accessories		
Accessories to be Ordered Separately	(NBR) flat gasket GSN 20-3, Order No. 733275002 (EPDM) flat gasket GSN 20-6, Order No. 733270004	(NBR) flat gasket GSA 20-3, Order-No:731490002 (EPDM) flat gasket GSA 20-9, Order-No: 734033003
Technical Drawing		
		

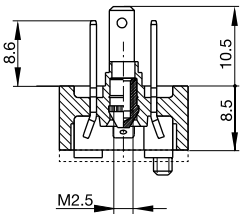
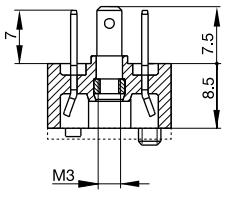
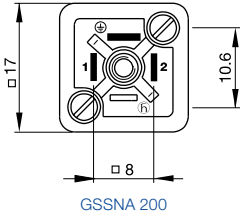
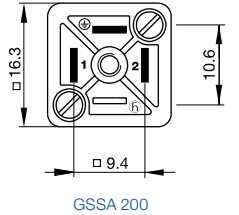
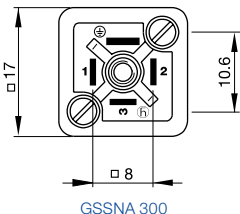
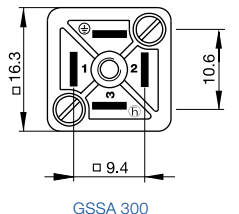
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Characteristics
932421100	GSN 20 black	2 + PE	solder	 
931352100	GSA 20 black	3 + PE	solder	 

GDM Series Surface Mounted Connectors, Type C as per Standard, Female Receptacle Connectors, DIN Standard and Industrial Standard, without Circuit

Technical Information

Product Description		
Order Designation	GSSNA X00	GSSA X00
		
Description	Male appliance connector with central screw and 2 screws M2.5 x 8, standard DIN EN 175 301-803-C, open nut	Male appliance connector with central screw and 2 screws M2.5 x 8, industrial standard (9.4 mm), open nut
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	UR, VDE, SEV, CSA	
Technical Data		
No. of Pins	2 + PE, 3 + PE	
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA 66	
Contact Holder	PA 66	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	6 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GSSNA 300-5, Order No. 730232002 (EPDM) flat gasket GSSNA 300-6, Order No. 730365004	(NBR) flat gasket GSSA 300-5, Order No. 730233002 (EPDM) flat gasket GSSA 300-6, Order No. 730312003


Technical Drawing		
		
		
		

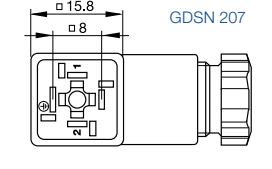
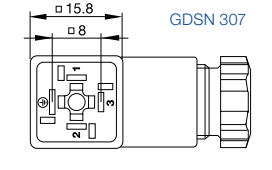
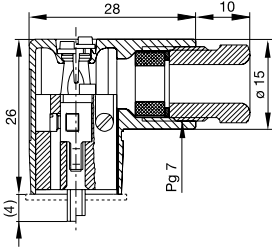
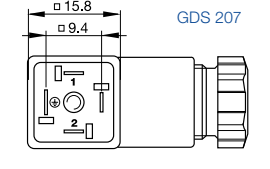
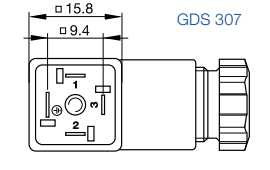
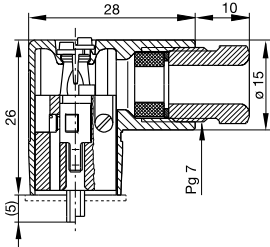
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
933110100	GSSNA 200	2 + PE	solder
933111100	GSSNA 300	3 + PE	solder
933117100	GSSA 200	2 + PE	solder
933116100	GSSA 300	3 + PE	solder

































GDM Series Rectangular Connectors, Type C as per Standard, Field Attachable Female Connectors, DIN Standard and Industrial Standard, without Circuit

Technical Information

Product Description		
Order Designation	GDSN X07	GDS X07
		
Description	Field attachable rectangular connector with central screw M2.5 x 27, standard DIN EN 175 301-803-C, without circuit	Rectangular connector, female connector field attachable, type C industrial standard (9.4 mm), without circuit, with central screw M2.5 x 27
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	UR, VDE, SEV, CSA	
Connectible Cables	Ø 4.5 to 6 mm	
Conductor Size	max. 0.75 mm ²	
Technical Data		
No. of Pins	2 + PE, 3 + PE	
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA 6 GF	
Contact Holder	PA 66	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 10 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	6 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	(NBR) flat gasket GDSN 307-4, Order No. 733176002 (NBR) flat gasket GDSN 307-5, Order No. 733310004	(NBR) flat gasket GDS 307-2, Order-No:730185002 (EPDM) flat gasket GDS 307-4, Order-No: 730314004



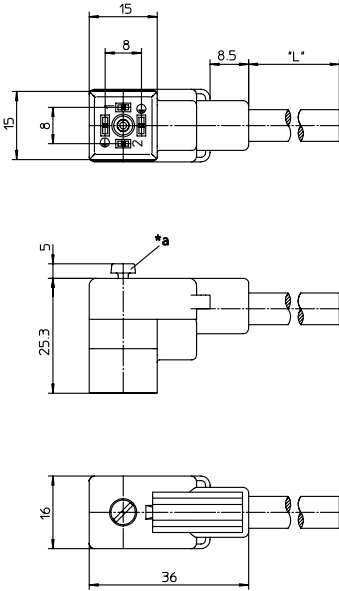
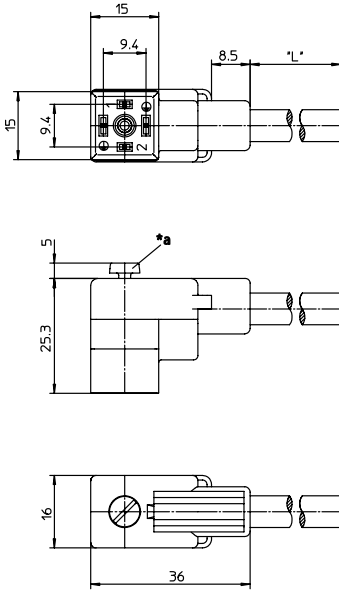
Technical Drawing	
 <p>GDSN 207</p>  <p>GDSN 307</p> 	 <p>GDS 207</p>  <p>GDS 307</p> 

Order Information

Order No.	Order Designation	No. of Pins	Circuit	Cable Gland	Operating Voltage	Rated Current	Characteristics
933137106	GDSN 207 gray	2 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   
933137100	GDSN 207 black	2 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   
933023106	GDSN 307 gray	3 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   
933023100	GDSN 307 black	3 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   
933138106	GDS 207 gray	2 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   
933138100	GDS 207 black	2 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   
933024106	GDS 307 gray	3 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   
933024100	GDS 307 black	3 + PE	No protection circuit	PG7	230 V AC/DC	6 A	   

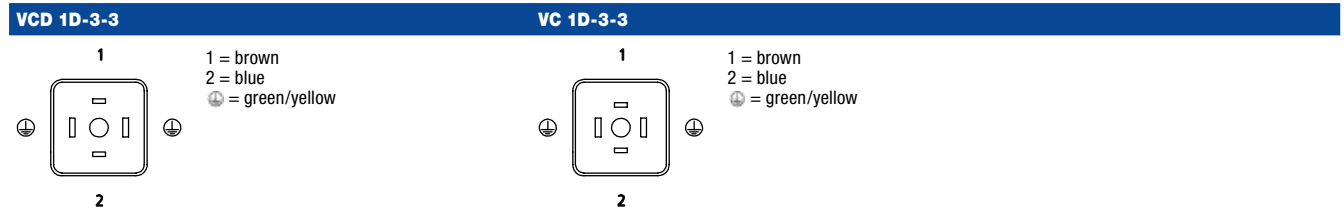
GDM Series Rectangular Connectors, Type C, Female Connectors with Overmolded Cable, DIN Standard and Industrial Standard, no Circuit

Technical Information

Product Description		
Order Designation	VCD 1D-3-3	VC 1D-3-3
		
Description	Rectangular connector, female connector with overmolded gasket and Cable, type C, DIN standard (8.0 mm), ground connection bridged, without circuit	Rectangular connector, female connector with overmolded gasket and Cable, type C, industrial standard (9.4 mm), ground connection bridged, without circuit
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	-	
Cables	PVC, PUR	
Connectible Cables	-	
Conductor Size	3 x 0.5 mm ²	
Technical Data		
No. of Pins	2 + 2 PE	
Ambient Temperature	-25 °C to +80 °C	
Housing/Grip/Screw Coupling	TPU	
Contact Holder	PBT	
Contact	CuZn, nickel underlay and tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Circuit	No protection circuit	
Contact Resistance	≤ 10 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Label, screw mounted	
Technical Drawing		
		

L = Standard length of cable • *a = M3 screw

Pin Assignment





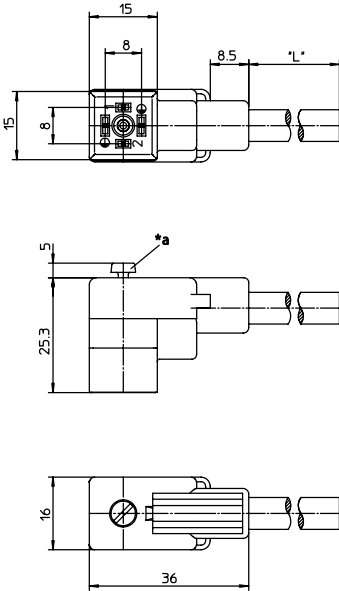
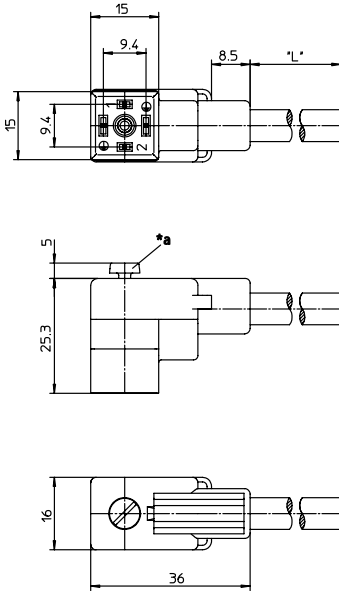
Order Information

Order No.	Order Designation	No. of Pins	Cable Length	Operating Voltage	Conductor Size	Jacket	Characteristics
12281	VCD 1D-3-3-212/2 M	2 + 2 PE	2 M	230 V AC/DC	3 x 0.5 mm ²	PVC, black	
12282	VCD 1D-3-3-212/5 M	2 + 2 PE	5 M	230 V AC/DC	3 x 0.5 mm ²	PVC, black	
9631	VCD 1D-3-3-212/10 M	2 + 2 PE	10 M	230 V AC/DC	3 x 0.5 mm ²	PVC, black	
12265	VC 1D-3-3-212/2 M	2 + 2 PE	2 M	230 V AC/DC	3 x 0.5 mm ²	PVC, black	
12266	VC 1D-3-3-212/5 M	2 + 2 PE	5 M	230 V AC/DC	3 x 0.5 mm ²	PVC, black	
16217	VC 1D-3-3-212/10 M	2 + 2 PE	10 M	230 V AC/DC	3 x 0.5 mm ²	PVC, black	

Conversion table mm² to AWG on page 20.

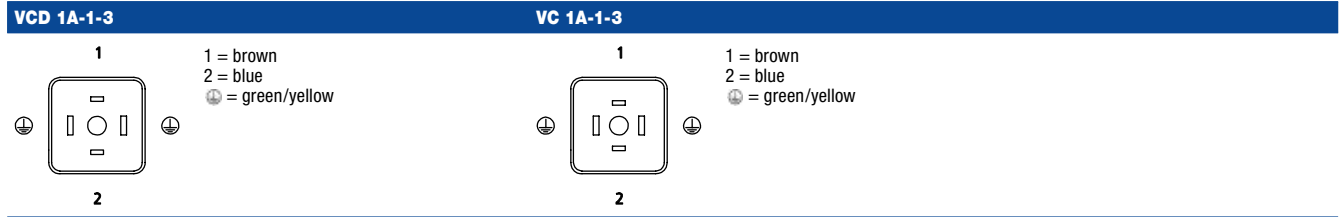
GDM Series Rectangular Connectors, Type C, Female Connectors with Overmolded Cable, DIN Standard and Industrial Standard, Protection Circuit: Varistor

Technical Information

Product Description		
Order Designation	VCD 1A-1-3	VC 1A-1-3
		
Description	Rectangular connector, female connector with overmolded gasket and cable, type C, DIN standard (8.0 mm), ground connection bridged, with protection circuit (varistor)	Rectangular connector, female connector with overmolded gasket and cable, type C, industrial standard (9.4 mm), ground connection bridged, with protection circuit (varistor)
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	-	
Cables	PVC, PUR	
Connectible Cables	-	
Conductor Size	3 x 0.5 mm ²	
Technical Data		
No. of Pins	2 + 2 PE	
Ambient Temperature	-25 °C to +80 °C	
Housing/Grip/Screw Coupling	TPU	
Contact Holder	PBT	
Contact	CuZn, nickel underlay and tin-plated	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Circuit	Varistor	
Contact Resistance	≤ 10 mΩ	
Operating Voltage	24 V AC/DC	
Rated Current	4 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Label, screw mounted	
Technical Drawing		
		

L = Standard length of cable • *a = M3 screw

Pin Assignment



Circuit Diagram



Order Information

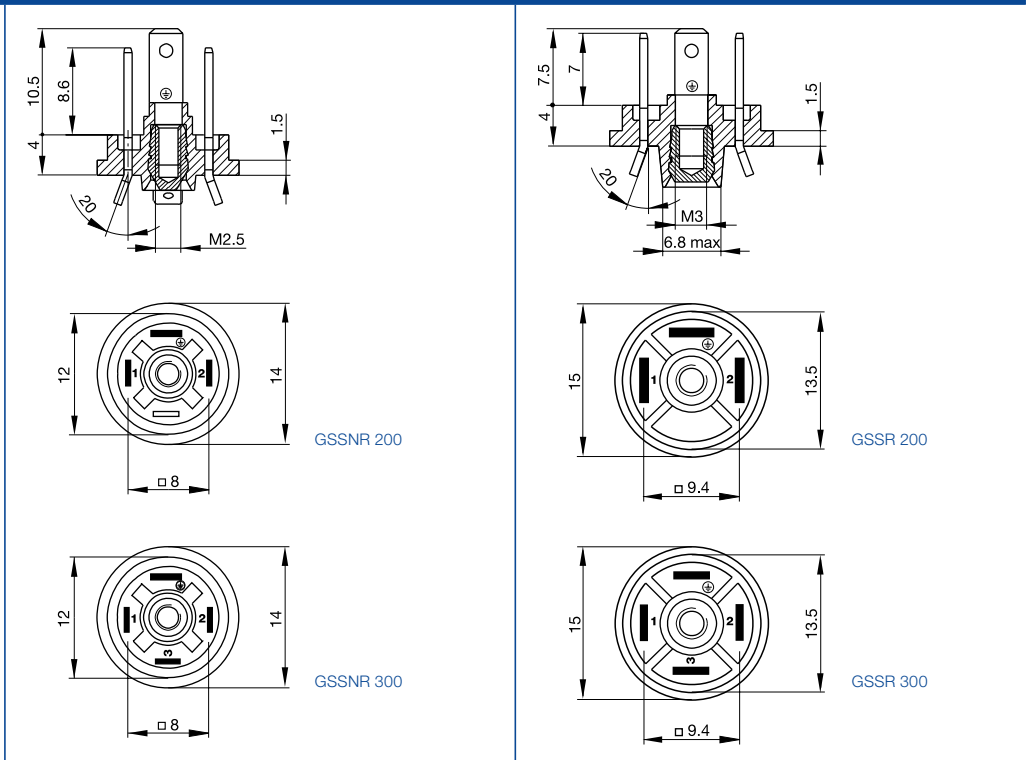
Order No.	Order Designation	No. of Pins	Cable Length	Conductor Size	Jacket	Characteristics
12274	VCD 1A-1-3-212/2 M	2 + 2 PE	2 M	3 x 0.5 mm ²	PVC, black	
12275	VCD 1A-1-3-212/5 M	2 + 2 PE	5 M	3 x 0.5 mm ²	PVC, black	
43445	VCD 1A-1-3-212/10 M	2 + 2 PE	10 M	3 x 0.5 mm ²	PVC, black	
12276	VCD 1A-1-3-226/2 M	2 + 2 PE	2 M	3 x 0.5 mm ²	PUR, halogen-free, black	
12277	VCD 1A-1-3-226/5 M	2 + 2 PE	5 M	3 x 0.5 mm ²	PUR, halogen-free, black	
43911	VCD 1A-1-3-226/10 M	2 + 2 PE	10 M	3 x 0.5 mm ²	PUR, halogen-free, black	
12279	VCD 1A-1-3-241/2 M	2 + 2 PE	2 M	3 x 0.5 mm ²	PUR, halogen-free, orange	
12280	VCD 1A-1-3-241/5 M	2 + 2 PE	5 M	3 x 0.5 mm ²	PUR, halogen-free, orange	
11096	VCD 1A-1-3-241/10 M	2 + 2 PE	10 M	3 x 0.5 mm ²	PUR, halogen-free, orange	
12263	VC 1A-1-3-212/2 M	2 + 2 PE	2 M	3 x 0.5 mm ²	PVC, black	
12264	VC 1A-1-3-212/5 M	2 + 2 PE	5 M	3 x 0.5 mm ²	PVC, black	
46944	VC 1A-1-3-212/10 M	2 + 2 PE	10 M	3 x 0.5 mm ²	PVC, black	
43906	VC 1A-1-3-226/2 M	2 + 2 PE	2 M	3 x 0.5 mm ²	PUR, halogen-free, black	
43909	VC 1A-1-3-226/5 M	2 + 2 PE	5 M	3 x 0.5 mm ²	PUR, halogen-free, black	
43905	VC 1A-1-3-226/10 M	2 + 2 PE	10 M	3 x 0.5 mm ²	PUR, halogen-free, black	

Conversion table mm² to AWG on page 20.

GDM Series Rectangular Connectors, Type C as per Industrial Standard, Surface Mounted Male Connectors, DIN Standard and Industrial Standard, without Circuit

Technical Information

Product Description		
Order Designation	GSSNR x00	GSSR x00
		
Description	Male appliance connector with central screw, design for extrusion-coating or potting, standard DIN EN 175 301-803-C, closed nut	Male appliance connector with central screw, design for extrusion-coating or potting, industrial standard (9.4 mm), closed nut
RoHS-Compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 175 301-803	Industrial standard
Approvals	UR, VDE, SEV, CSA	
Technical Data		
No. of Pins	2 + PE, 3 + PE	
Ambient Temperature	-40 °C to +125 °C	
Housing/Grip/Screw Coupling	PA 66	
Contact Holder	PA 66	
Contact	CuZn, tin-plated	
Mechanical Data		
Degree of Protection	IP65 (gasket required, only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Solder	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	230 V AC/DC	
Rated Current	6 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 200	
Accessories to be Ordered Separately	-	
Technical Drawing		



Order Information

Order No.	Order Designation	No. of Pins	Terminal Type
933115100	GSSR 200	2 + PE	solder
933114100	GSSR 300	3 + PE	solder
933113100	GSSNR 200	2 + PE	solder
933112100	GSSNR 300	3 + PE	solder



Rectangular Connectors ST Series



Be certain. Belden.

Permanent Power, Straight to the Network.

The rectangular connectors of the compact ST series are specially designed for grid voltages and are used to supply power and transmit signals in industrial systems, in mechanical engineering, and in building automation both indoors and outdoors. The reliable ST series rectangular connectors take over the full job of power supply even when there are increased requirements, for example when sensitive measuring equipment is involved.

Product Features

- Available in 3 to 6-pin versions (including PE)
- For voltages up to 400 V AC and currents up to 16 A
- Dust and splash resistant for high resilience
- VDE and UL approval for global use
- Extra protection from inadvertent disconnection thanks to metal safety bracket
- Protection up to IP54

Benefits


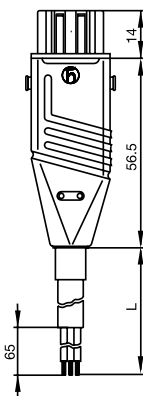
- Lower installation costs and simplified service/maintenance (locking/unlocking) provides cost savings
- Increased reliability from these connectors, especially outdoors (e.g., sun protected applications) and the fact that these connectors are the de facto market standard
- Increased machine and system availability thanks to grease and chemical resistance
- Better competitive edge in the market when Hirschmann connectors are used, since they have a high approval rating among installation engineers

Applications

- Building automation
 - Small drives such as those used for blinds
 - Tubular and servomotors
 - Water mains supply systems
 - Mains voltage supply to technical lighting equipment
- Wind power station control
- Power and signal supply to industrial systems and in mechanical engineering
- Voltage supply to medical devices







Rectangular Connectors

Technical Information

Product Description	
Order Designation	STAK 3 K
	
Description	Rectangular connector, female, straight, overmolded cable (DIN VDE 0282), spring loaded contacts, 3-pin + PE
RoHS-compliant (2011/65/EU)	Yes
(Construction Type) Standard	IEC 61948, IEC 60335
Approvals	VDE, SEV
Technical Data	
Ambient Temperature	-30 °C to +90 °C (male connector), -25 °C to +60 °C (cable), mind cable temperature range
Housing/Grip/Screw Coupling	PA
Contact Holder	PA
Contact	CuZn, tin-plated
Mechanical Data	
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data	
Contact Resistance	≤ 5 mΩ
Operating Voltage	400 V AC/230 V DC
Rated Current at +40 °C	10 A AC/10 A DC
Pollution Degree	3
Accessories	
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 75
Accessories to be Ordered Separately	Safety bracket STASI 3, Order No. 732045001
Technical Drawing	
	

L = Standard length of cable




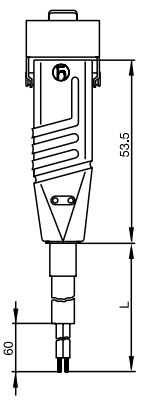
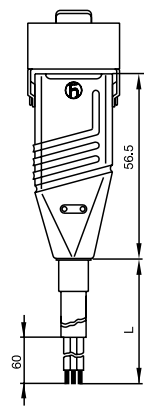
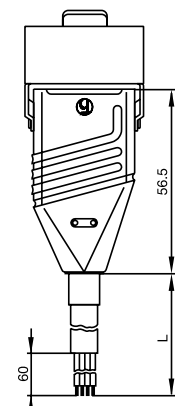
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Jacket	Characteristics
932187015	STAK 3 K 075 5 M	3 + PE	0.75 mm ²	H05 RR-F4G 0.75 black	 
932187016	STAK 3 K 075 10 M	3 + PE	0.75 mm ²	H05 RR-F4G 0.75 black	 
932187011	STAK 3 K 075 3025 mm	3 + PE	0.75 mm ²	H05 RR-F4G 0.75 black	 

Conversion table mm² to AWG on page 20.







Rectangular Connectors

Technical Information

Product Description			
Order Designation	STAS 2 K	STAS 3 K	STAS 4 K
			
Description	Rectangular connector, male straight, overmolded cable (DIN VDE 0282) and safety bracket, contact pin, 2-pin + PE	Rectangular connector, male straight, overmolded cable (DIN VDE 0282) and safety bracket, contact pin, 3-pin + PE	Rectangular connector, male, straight, overmolded cable (DIN VDE 0282) and safety bracket, contact pin, 4-pin + PE
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61948, IEC 60335		
Approvals	VDE, SEV		
Technical Data			
Ambient Temperature	-30 °C to +90 °C (male connector), -25 °C to +60 °C (cable), mind cable temperature range		
Housing/Grip/Screw Coupling	PA		
Contact Holder	PA		
Contact	CuZn, tin-plated		
Mechanical Data			
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	230 V AC/DC	400 V AC/230 V DC	
Rated Current at +40 °C	10 A AC/6 A DC	10 A AC/10 A DC	
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 75		
Accessories to be Ordered Separately	-		
Technical Drawing			
			

L = Standard length of cable




Order Information

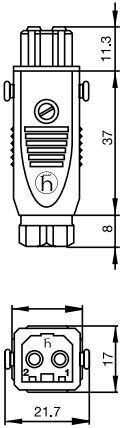
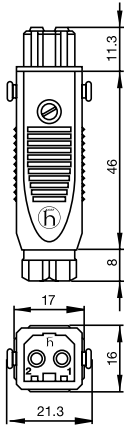
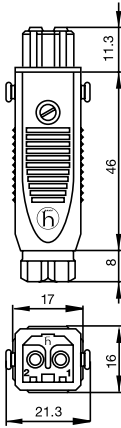
Order No.	Order Designation	No. of Pins	Conductor Size	Jacket	Characteristics
972246008	STAS 2 K 075 SI 1000 mm gray	2 + PE	0.75 mm ²	H05 RR-F3G 0.75 black	 
931300055	STAS 3 K 075 SI 1000 mm gray	3 + PE	0.75 mm ²	H05 RR-F4G 0.75 black	 
932578011	STAS 4 K 075 SI 1000 mm gray	4 + PE	0.75 mm ²	H05 RR-F5G 0.75 black	 

Conversion table mm² to AWG on page 20.










Field Attachable Rectangular Connectors

Technical Information

Product Description			
Order Designation	STAK 2	STAK 20	STAK 200
			
Description	Field attachable rectangular cable connector, female, straight, without strain relief, contact type spring loaded contacts, 2-pin + PE, PG7 cable screw coupling	Field attachable rectangular cable connector, female connector, straight, with strain relief, spring loaded contacts, 2-pin + PE, PG7 cable screw coupling	Field attachable rectangular cable connector, female, straight, with strain relief and coding slot, spring loaded contacts, 2-pin + PE, PG7 cable screw coupling
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61948, IEC 60335		
Approvals	UL, VDE, SEV		
Technical Data			
Ambient Temperature	-30 °C to +90 °C		
Housing/Grip/Screw Coupling	PA		
Contact Holder	PA		
Contact	CuZn, tin-plated		
Mechanical Data			
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)		
Terminal Type	Screw		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	230 V AC/DC		
Rated Current at +40 °C	16 A AC/10 A DC		
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 100		
Accessories to be Ordered Separately	Safety bracket STASI 2, Order No. 732044000	Safety bracket STASI 2, Order No. 732044000	Safety bracket STASI 2, Order No. 732044000

Technical Drawing			
			





Order Information

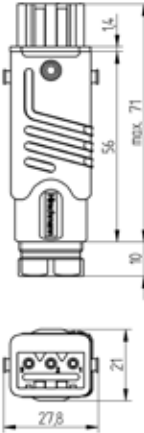
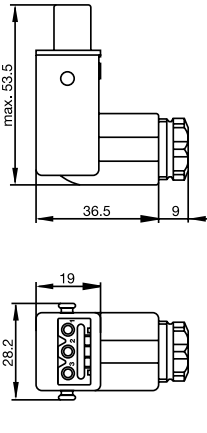
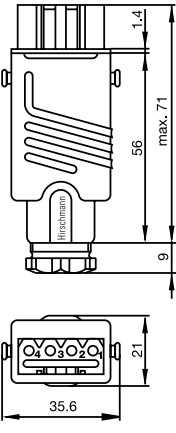
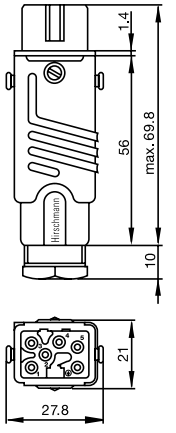
Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
930621106	STAK 2 gray	2 + PE	max. 1.5 mm ²	Ø 4.0 to 6.5 mm (PG7)	  
931264106	STAK 20 gray	2 + PE	max. 1.5 mm ²	Ø 4.0 to 6.5 mm (PG7)	  
932037106	STAK 200 gray	2 + PE	max. 1.5 mm ²	Ø 4.0 to 6.5 mm (PG7)	  

Conversion table mm² to AWG on page 20.

Field Attachable Rectangular Connectors
















Technical Information

Product Description				
Order Designation	STAK 3	STAKWI 3	STAK 4	STAK 5
				
Description	Field attachable rectangular female cable connector, straight, with strain relief, spring loaded contacts, 3-pin + PE, PG11 cable screw coupling	Field attachable rectangular female cable connector, angled, without strain relief, springloaded contacts, 3-pin + PE, PG11 cable screw coupling	Field attachable rectangular female cable connector, straight, with strain relief, springloaded contacts, 4-pin + PE, PG11 cable screw coupling	Field attachable rectangular female cable connector, straight, with strain relief, unassembled with supplied contacts and seal, springloaded contacts, 5-pin + PE, PG11 cable screw coupling
RoHS-compliant (2011/65/EU)	Yes			
(Construction Type) Standard	IEC 61948, IEC 60335			
Approvals	UL, VDE, SEV		VDE, SEV	
Technical Data				
Ambient Temperature	-30 °C to +90 °C (male connector)			
Housing/Grip/Screw Coupling	PA			
Contact Holder	PA			
Contact	CuZn, tin-plated			
Mechanical Data				
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)			
Terminal Type	Screw			Crimping
Electrical Data				
Contact Resistance	≤ 5 mΩ			≤ 10 mΩ
Operating Voltage	400 V AC/230 V DC			
Rated Current at +40 °C	10 A DC/16 A AC		10 A DC/10 A AC	10 A DC/6 A AC
Pollution Degree	3			
Accessories				
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 100			
Accessories to be Ordered Separately	Safety bracket STASI 3 Order No. 732045001	Safety bracket STASI 3 Order No. 732045001	Safety bracket STASI 4 Order No. 732449001	Safety bracket STASI 3 Order No. 732045001

Technical Drawing				
				

L = Standard length of cable




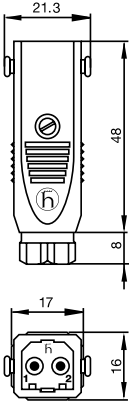
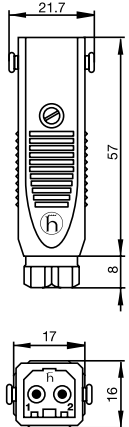
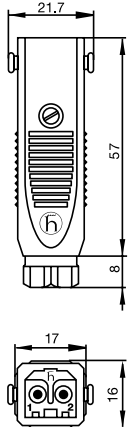
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
932140106	STAK 3 N gray	3 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 mm (PG11)	  
932140100	STAK 3 N black	3 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 mm (PG11)	  
932413106	STAKWI 3 gray	3 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 mm (PG11)	  
932533106	STAK 4 gray	4 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 mm (PG11)	 
932533100	STAK 4 black	4 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 mm (PG11)	 
931691106	STAK 5 gray	5 + PE	max. 1.0 mm ²	Ø 6.0 to 10.0 mm (PG11)	 










Conversion table mm² to AWG on page 20.

Field Attachable Rectangular Connectors

Technical Information

Product Description			
Order Designation	STAS 2	STAS 20	STAS 200
			
Description	Field attachable rectangular male cable connector, straight, without strain relief, pin contacts, 2-pin + PE, PG7 cable screw coupling	Field attachable rectangular male cable connector, straight, with strain relief, pin contacts, 2-pin + PE, PG7 cable screw coupling	Field attachable rectangular male cable connector, straight, with strain relief and coding pin, contact type pin, 2-pin + PE, PG7 cable
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61948, IEC 60335		
Approvals	UL, VDE, SEV		
Technical Data			
Ambient Temperature	-30 °C to +90 °C		
Housing/Grip/Screw Coupling	PA		
Contact Holder	PA		
Contact	CuZn, tin-plated		
Mechanical Data			
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)		
Terminal Type	Screw		
Electrical Data			
Contact Resistance	≤ 5 mΩ		
Operating Voltage	230 V AC/DC		
Rated Current at +40 °C	16 A AC/10 A DC		
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 100		
Accessories to be Ordered Separately	Safety bracket STASI 2, Order No. 732044000	Safety bracket STASI 2, Order No. 732044000	Safety bracket STASI 2, Order No. 732044000
Technical Drawing			
			


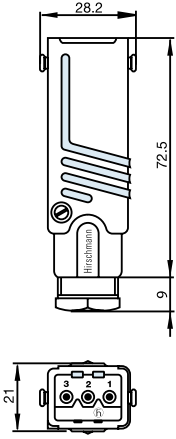
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
930620106	STAS 2 gray	2 + PE	max. 1.5 mm ²	Ø 4.0 to 6.5 mm (PG7)	  
931265106	STAS 20 gray	2 + PE	max. 1.5 mm ²	Ø 4.0 to 6.5 mm (PG7)	  
932038106	STAS 200 gray	2 + PE	max. 1.5 mm ²	Ø 4.0 to 6.5 mm (PG7)	  















Conversion table mm² to AWG on page 20.

Field Attachable Rectangular Connectors

Technical Information

Product Description			
Order Designation	STAS 3	STAS 4	STAS 5
			
Description	Field attachable rectangular male cable connector, straight, with strain relief, pin contact, 3-pin + PE, PG11 cable screw coupling	Field attachable rectangular male cable connector, straight, with strain relief, pin contact, 4-pin + PE, M16 x 1.5 cable screw coupling	Field attachable rectangular male cable connector, straight, with strain relief, pin contact, 5-pin + PE, PG11 cable screw coupling
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61948, IEC 60335		
Approvals	UL, VDE, SEV		VDE, SEV
Technical Data			
Ambient Temperature	-30 °C to +90 °C		
Housing/Grip/Screw Coupling	PA		
Contact Holder	PA		
Contact	CuZn, tin-plated		
Mechanical Data			
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)		
Terminal Type	Screw		Crimping
Electrical Data			
Contact Resistance	≤ 5 mΩ		≤ 10 mΩ
Operating Voltage	400 V AC/230 V DC		
Rated Current at +40 °C	10 A DC/16 A AC	10 A DC/10 A AC	10 A DC/6 A AC
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 100		
Accessories to be Ordered Separately	Safety bracket STASI 3 Order No. 732045001	Safety bracket STASI 4 Order No. 732449001	Safety bracket STASI 5 Order No. 732045001
Technical Drawing			
			





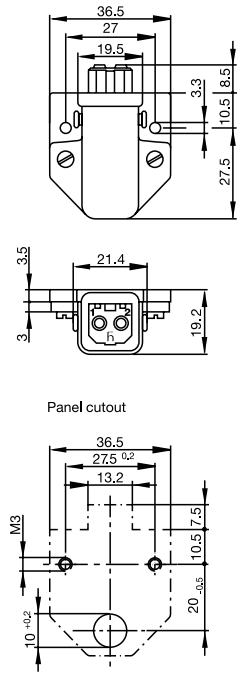
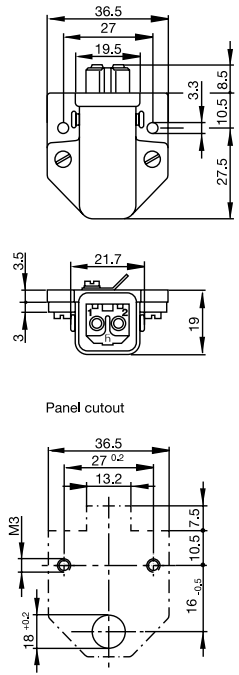
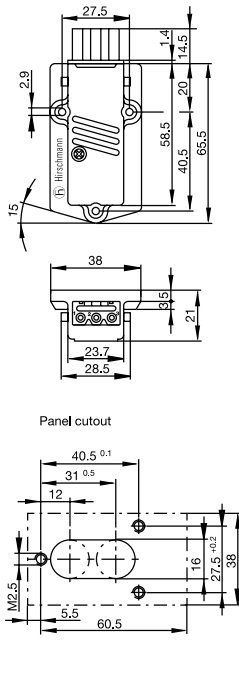
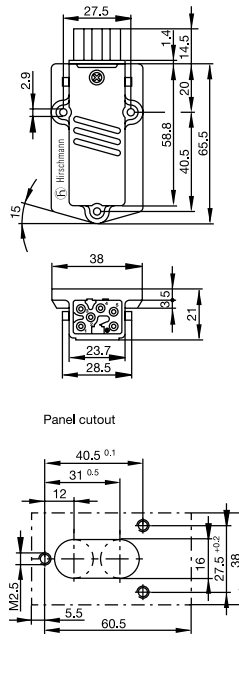
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
932143106	STAS 3 N gray	3 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 (PG11)	  
932143100	STAS 3 N black	3 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 (PG11)	  
934442106	STAS 4 N gray	4 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 (M16 x 1.5)	  
934442100	STAS 4 N black	4 + PE	max. 1.5 mm ²	Ø 6.0 to 10.0 (M16 x 1.5)	  
931692106	STAS 5 gray	5 + PE	max. 1.0 mm ²	Ø 8.0 to 10.0 (PG11)	 












Conversion table mm² to AWG on page 20.

Female Receptacle Connectors

Technical Information

Product Description				
Order Designation	STAKAP 2	STAKAP 200	STAKAP 3	STAKAP 5
				
Description	Panel mounted female connector with die cast plate, spring-loaded contacts, 2-pin + PE	Panel mounted female connector with die cast plate and coding, spring-loaded contacts, 2-pin + PE	Panel mounted female connector, contact type springloaded female connector, 3-pin + PE	Panel mounted female connector, unassembled, with supplied contacts, contact type spring-loaded female connector, 5-pin
RoHS-compliant (2011/65/EU)	Yes			
(Construction Type) Standard	IEC 61948, IEC 60335			
Approvals	UL, VDE, SEV			VDE, SEV
Technical Data				
Ambient Temperature	-30 °C to +90 °C			
Housing/Grip/Screw Coupling	PA			
Contact Holder	PA			
Contact	CuZn, tin-plated			
Mechanical Data				
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)			
Electrical Data				
Contact Resistance	≤ 10 mΩ		≤ 5 mΩ	
Operating Voltage	230 V AC/DC		400 V AC/230 V DC	
Rated Current at +40 °C	16 A AC/6 A DC		16 A AC/10 A DC	10 A DC/6 A AC
Pollution Degree	3			
Accessories				
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 100			
Accessories to be Ordered Separately	Safety bracket STASI 2 Order No. 732044000	Safety bracket STASI 2 Order No. 732044000	Safety bracket STASI 3 Order No. 732045001	Safety bracket STASI 3 Order No. 732045001
Technical Drawing				
				





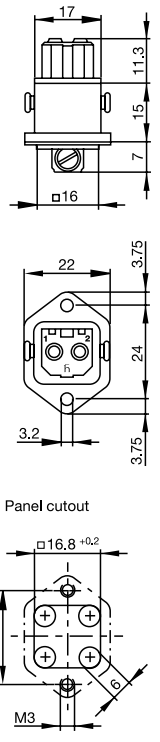
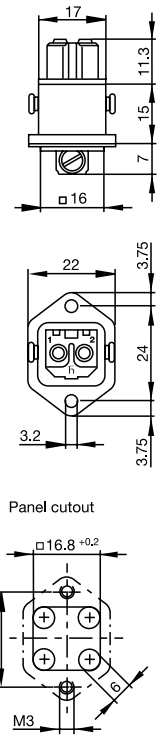
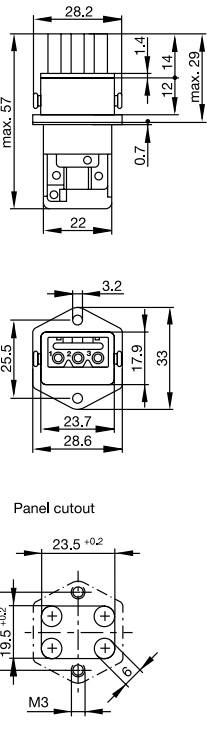
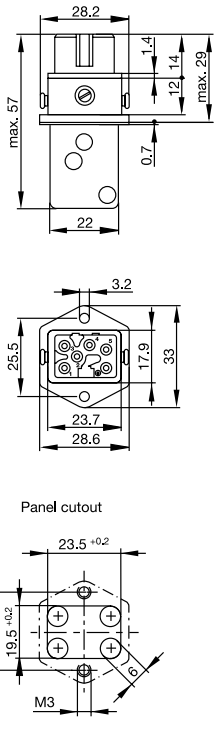
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
930329106	STAKAP 2 gray	2 + PE	screw	max. 1.5 mm ²	  
932045106	STAKAP 200 gray	2 + PE	screw	max. 1.5 mm ²	  
932513106	STAKAP 3 N gray	3 + PE	screw	max. 1.5 mm ²	  
932511106	STAKAP 5 gray	5 + PE	crimping	max. 1.0 mm ²	 












Conversion table mm² to AWG on page 20.

Female Receptacle Connectors

Technical Information












Product Description				
Order Designation	STAKEI 2	STAKEI 200	STAKEI 3 N	STAKEI 5
				
Description	Panel mounted female connector, seal supplied loose, spring-loaded contacts, 2-pin + PE	Panel mounted female connector with coding slot, seal supplied, spring-loaded contacts, 2-pin + PE	Panel mounted female connector, seal supplied loose, spring-loaded contacts, 3-pin + PE	Panel mounted female connector, unassembled with supplied contacts, seal supplied loose, spring-loaded contacts, 5-pin + PE
RoHS-compliant (2011/65/EU)	Yes			
(Construction Type) Standard	IEC 61948, IEC 60335			
Approvals	UL, VDE, SEV			VDE, SEV
Technical Data				
Ambient Temperature	-30 °C to +90 °C			
Housing/Grip/Screw Coupling	PA			
Contact Holder	PA			
Contact	CuZn, tin-plated			
Mechanical Data				
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)			
Electrical Data				
Contact Resistance	≤ 10 mΩ		≤ 5 mΩ	≤ 10 mΩ
Operating Voltage	230 V AC/DC		400 V AC/230 V DC	
Rated Current at +40 °C	16 A AC/6 A DC		16 A AC/10 A DC	6 A AC/10 A DC
Pollution Degree	3			
Accessories				
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 100			
Accessories to be Ordered Separately	Safety bracket STASI 2 Order No. 732044000	Safety bracket STASI 2 Order No. 732044000	Safety bracket STASI 3 Order No. 732045001	Safety bracket STASI 3 Order No. 732045001
Technical Drawing				
				

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
930647106	STAKEI 2 gray	2 + PE	screw	max. 1.5 mm ²	  
932047106	STAKEI 200 gray	2 + PE	screw	max. 1.5 mm ²	  
932142106	STAKEI 3 N gray	3 + PE	screw	max. 1.5 mm ²	  
931694106	STAKEI 5 gray	5 + PE	crimping	max. 1.0 mm ²	 

Conversion table mm² to AWG on page 20.





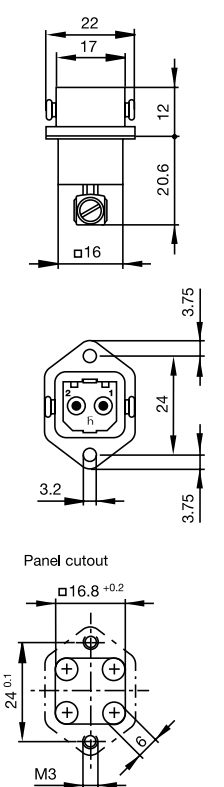
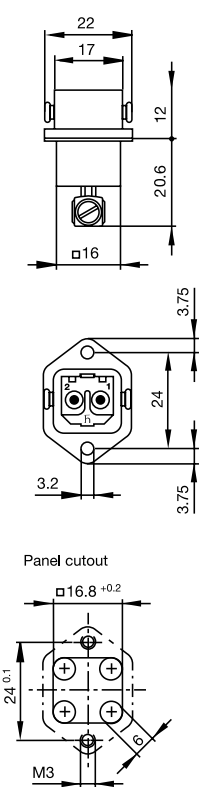
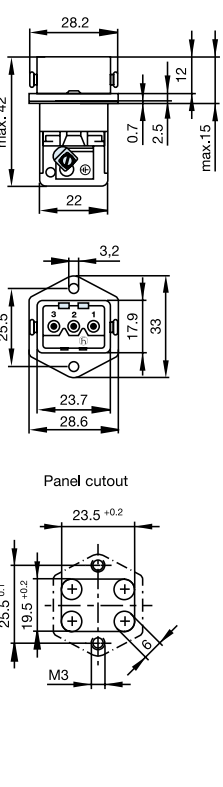
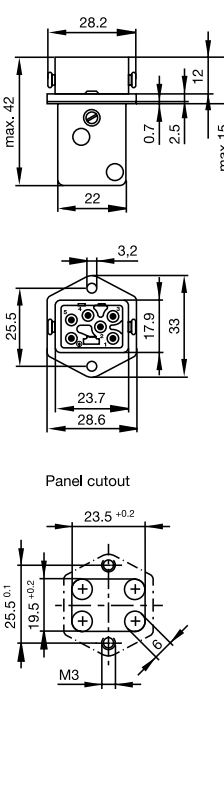
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
930822106	STASAP 2 B gray	2 + PE	screw	max. 1.5 mm ²	  
932046106	STASAP 200 gray	2 + PE	screw	max. 1.5 mm ²	  
932514106	STASAP 3 N gray	3 + PE	screw	max. 1.5 mm ²	  
932512106	STASAP 5 gray	5 + PE	crimping	max. 1.0 mm ²	 












Conversion table mm² to AWG on page 20.

Male Receptacle Connectors

Technical Information

Product Description				
Order Designation	STASEI 2	STASEI 200	STASEI 3	STASEI 5
				
Description	Panel mounted male connector, flat gasket supplied loose, pin contact, 2-pin + PE	Panel mounted male connector, with coding pin, flat gasket supplied loose, pin contact, 2-pin + PE	Panel mounted male connector, flat gasket supplied loose, pin contact, 3-pin + PE	Panel mounted male connector, unassembled with supplied contacts, seal supplied loose, contact type pin, 5-pin + PE
RoHS-compliant (2011/65/EU)	Yes			
(Construction Type) Standard	IEC 61948, IEC 60335			
Approvals	UL, VDE, SEV			VDE, SEV
Technical Data				
Ambient Temperature	-30 °C to +90 °C			
Housing/Grip/Screw Coupling	PA			
Contact Holder	PA			
Contact	CuZn, tin-plated			
Mechanical Data				
Degree of Protection	IP54 (only when mated with Hirschmann/Lumberg counterparts)			
Electrical Data				
Contact Resistance	≤ 10 mΩ		≤ 5 mΩ	≤ 10 mΩ
Operating Voltage	230 V AC/DC		400 V AC/230 V DC	
Rated Current at +40 °C	16 A AC/6 A DC		16 A AC/10 A DC	6 A AC/10 A DC
Pollution Degree	3			
Accessories				
Scope of Delivery or Accessories (incl.)	Items supplied in one package: 100			
Accessories to be Ordered Separately	Safety bracket STASI 2 Order No. 732044000	Safety bracket STASI 2 Order No. 732044000	Safety bracket STASI 3 Order No. 732045001	Safety bracket STASI 3 Order No. 732045001
Technical Drawing				
				

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Characteristics
930622106	STASEI 2 gray	2 + PE	screw	max. 1.5 mm ²	  
932048106	STASEI 200 gray	2 + PE	screw	max. 1.5 mm ²	  
932145106	STASEI 3 N gray	3 + PE	screw	max. 1.5 mm ²	  
931697106	STASEI 5 gray	5 + PE	crimping	max. 1.0 mm ²	 

Conversion table mm² to AWG on page 20.



Hirschmann Circular Connectors CA Series



Be certain. Belden.

The Universal Signal and Power Connector for the Toughest Environments

The highly resilient CA series is truly versatile. The screw-on industrial connector is used in a number of industries for power supply and data transmission. Its robust design and the materials used also allow for use outdoors and in nautical environments.

Product Features

- Robust housing made of impact-proof, fiberglass-reinforced plastic
- Extremely shakeproof and vibration-proof thanks to special threaded coupling and additional internal strain relief
- Protection against dust and water immersion
- IP67 protection
- VDE and UL approvals
- 3-pin + PE and 6-pin + PE versions

Benefits

- Simple, cost-effective connector system
- Proven, reliable system for a number of applications
- Robust housing ensures a long service life
- Touch-protected connector system for increased user safety (DIN EN 61984)

Applications

This connector is used in mechanical engineering and plant engineering, data processing and telecommunications, measuring and test devices in environmental and process engineering, and for medical devices.

Used for agricultural technology, in mobile construction machinery, traffic and lighting systems, or in solar technology. The robust CA industrial connectors are perfect for a number of outdoor applications.

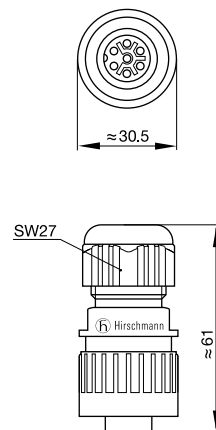
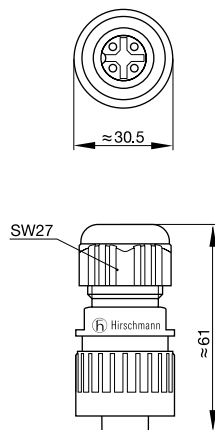
Examples:

- Connection of weighing equipment
- Cable connection in flow monitors or dosing systems
- Connection of inverters for thin-film panels in solar technology
- Use in stage equipment and for automatic billboards in outdoor spaces

Circular Connectors CA Series

Technical Information

Product Description		
Order Designation	CA 3 LD	CA 6 LD
		
Description	Circular cable connector, field attachable female connector, straight, with integrated strain relief, 3-pin + PE	Circular cable connector, field attachable female connector, straight, with integrated strain relief, 6-pin + PE
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984/IEC 61984 (VDE 0627)	
Approvals	UL, VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	PA 66-GF	
Contact Holder Material	PA 66-GF	
Contact Material/Surface Finish	Cu/Ag	
O-Ring Material	NBR	
Mechanical Data		
Degree of Protection [IEC 60529]	IP66, IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	Solder, hollow contacts
Electrical Data		
Contact Resistance	3 mΩ	5 mΩ
Operating Voltage	400 V AC/250 V DC	250 V AC/DC
Rated Current	10 A DC/16 A AC	10 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 cable socket, unmounted in plastic bag	1 cable socket, unmounted in plastic bag
Technical Drawing		



Pin Assignment

3-pin + PE



No prescribed pin assignment

6-pin + PE



No prescribed pin assignment



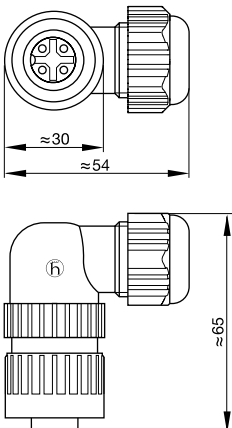
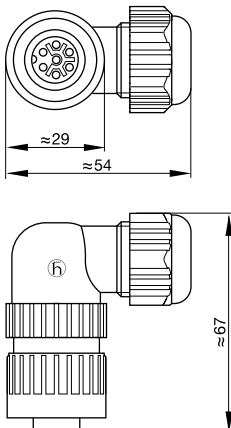
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
934125100	CA 3 LD	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934125101	CA 3 LD red	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934125102	CA 3 LD blue	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934125107	CA 3 LD white	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934127100	CA 6 LD	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934127101	CA 6 LD red	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934127102	CA 6 LD blue	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934127107	CA 6 LD white	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	

Conversion table mm² to AWG on page 20.

Circular Connectors CA Series

Technical Information

Product Description		
Order Designation	CA 3 W LD	CA 6 W LD
		
Description	Circular cable connector, field attachable female connector, angled, with integrated strain relief, 3-pin + PE	Circular cable connector, field attachable female connector, angled, with integrated strain relief, 6-pin + PE
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984/IEC 61984 (VDE 0627)	
Approvals	UL, VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	PA 66-GF	
Contact Holder Material	PA 66-GF	
Contact Material/Surface Finish	Cu/Ag	
O-Ring Material	NBR	
Mechanical Data		
Degree of Protection [IEC 60529]	IP66, IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	Solder, hollow contacts
Electrical Data		
Contact Resistance	3 mΩ	5 mΩ
Operating Voltage	400 V AC/250 V DC	250 V AC/DC
Rated Current	10 A DC/16 A AC	10 A
Pollution Degree	3	
Zubehör		
Scope of Delivery or Accessories (incl.)	1 cable socket, unmounted in plastic bag	1 cable socket, unmounted in plastic bag
Technical Drawing		
		

Pin Assignment

3-pin + PE



No prescribed pin assignment

6-pin + PE



No prescribed pin assignment



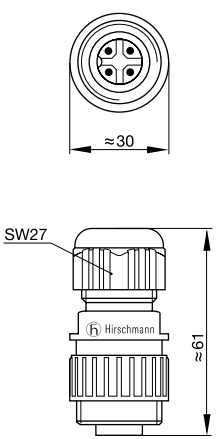
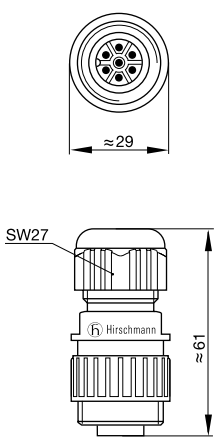
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
934129100	CA 3 W LD	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934129101	CA 3 W LD red	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934129102	CA 3 W LD blue	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934129107	CA 3 W LD white	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934131100	CA 6 W LD	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934131101	CA 6 W LD red	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934131102	CA 6 W LD blue	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934131107	CA 6 W LD white	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	

Conversion table mm² to AWG on page 20.

Circular Connectors CA Series

Technical Information

Product Description		
Order Designation	CA 3 LS	CA 6 LS
		
Description	Circular cable connector, field attachable male, straight, with integrated strain relief, 3-pin + PE	Circular cable connector, field attachable male straight, with integrated strain relief, 6-pin + PE
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984/IEC 61984 (VDE 0627)	
Approvals	UL, VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	PA 66-GF	
Contact Holder Material	PA 66-GF	
Contact Material/Surface Finish	Cu/Ag	
O-Ring Material	NBR	
Mechanical Data		
Degree of Protection [IEC 60529]	IP66, IP67 (only when mated with Hirschmann/Lumberg counterparts)	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw	Solder, hollow contacts
Electrical Data		
Contact Resistance	3 mΩ	5 mΩ
Operating Voltage	400 V AC/250 V DC	250 V AC/DC
Rated Current	10 A DC/16 A AC	10 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 cable plug, unmounted in plastic bag	1 cable plug, unmounted in plastic bag
Technical Drawing		
		

Pin Assignment

3-pin + PE



No prescribed pin assignment

6-pin + PE



No prescribed pin assignment



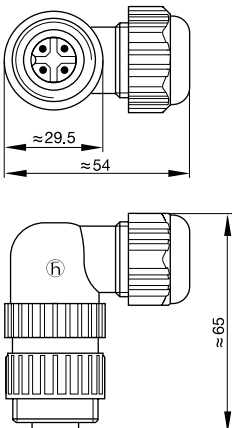
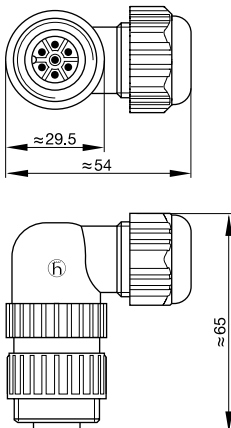
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
934124100	CA 3 LS	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934124101	CA 3 LS red	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934124102	CA 3 LS blue	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934124107	CA 3 LS white	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934126100	CA 6 LS	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934126101	CA 6 LS red	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934126102	CA 6 LS blue	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
8765	CA 6 LS white	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	

Conversion table mm² to AWG on page 20.

Circular Connectors CA Series

Technical Information

Product Description		
Order Designation	CA 3 W LS	CA 6 W LS
		
Description	Circular cable connector, field attachable male connector, angled design, with integrated strain relief, 3-pin + PE	Circular cable connector, field attachable male connector, angled design, with integrated strain relief, 6-pin + PE
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984/IEC 61984 (VDE 0627)	
Approvals	UL, VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	PA 66-GF	
Contact Holder Material	PA 66-GF	
Contact Material/Surface Finish	Cu/Ag	
O-Ring Material	NBR	
Mechanical Data		
Degree of Protection [IEC 60529]	IP66, IP67 (only when mated with Hirschmann/Lumberg counterparts)	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts)
Terminal Type	Screw	Solder, hollow contacts
Electrical Data		
Contact Resistance	3 mΩ	5 mΩ
Operating Voltage	400 V AC/250 V DC	250 V AC/DC
Rated Current	10 A DC/16 A AC	10 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 cable plug, unmounted in plastic bag	1 cable plug, unmounted in plastic bag
Technical Drawing		
		

Pin Assignment

3-pin + PE



No prescribed pin assignment

6-pin + PE



No prescribed pin assignment

Order Information

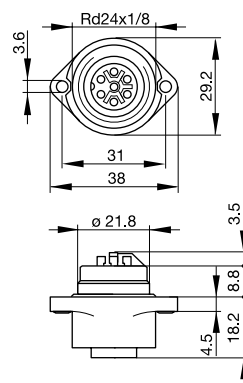
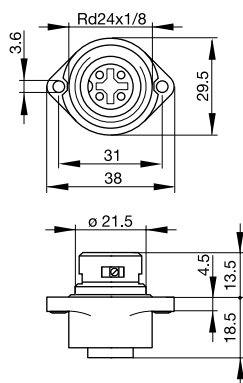
Order No.	Order Designation	No. of Pins	Conductor Size	Cable Gland	Characteristics
934128100	CA 3 W LS	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
10038	CA 3 W LS red	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
10039	CA 3 W LS blue	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
10040	CA 3 W LS white	3 + PE	max. 2.5 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934130100	CA 6 W LS	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
10041	CA 6 W LS red	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
934130102	CA 6 W LS blue	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	
10042	CA 6 W LS white	6 + PE	max. 0.75 mm ²	Ø 6.0 to 12.0 mm (TR22)	

Conversion table mm² to AWG on page 20.

Circular Connectors CA Series

Technical Information

Product Description		
Order Designation	CA 3 GD	CA 6 GD
		
Description	Circular connector, female appliance connector with flange, 3-pin + PE	Circular connector, female appliance connector with flange, 6-pin + PE
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984/IEC 61984 (VDE 0627)	
Approvals	UL, VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	PA 66-GF	
Contact Holder Material	PA 66-GF	
Contact Material/Surface Finish	Cu/Ag	
O-Ring Material	NBR	
Mechanical Data		
Degree of Protection [IEC 60529]	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	Solder, hollow contacts
Electrical Data		
Contact Resistance	3 mΩ	5 mΩ
Operating Voltage	400 V AC/250 V DC	250 V AC/DC
Rated Current	10 A DC/16 A AC	10 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 female receptacle connector with round seal in plastic bag	1 female receptacle connector with round seal in plastic bag
Technical Drawing		



Pin Assignment

3-pin + PE

No prescribed
pin assignment

6-pin + PE

No prescribed
pin assignment



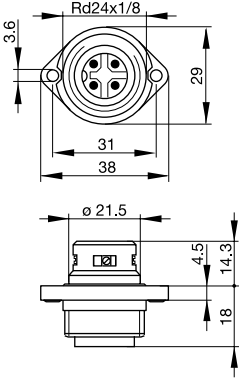
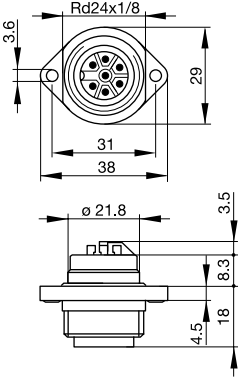
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Characteristics
932321100	CA 3 GD	3 + PE	max. 2.5 mm ²	
932321101	CA 3 GD red	3 + PE	max. 2.5 mm ²	
932321102	CA 3 GD blue	3 + PE	max. 2.5 mm ²	
932321107	CA 3 GD white	3 + PE	max. 2.5 mm ²	
932325100	CA 6 GD	6 + PE	max. 0.75 mm ²	
5397	CA 6 GD red	6 + PE	max. 0.75 mm ²	
7786	CA 6 GD blue	6 + PE	max. 0.75 mm ²	
7789	CA 6 GD white	6 + PE	max. 0.75 mm ²	

Conversion table mm² to AWG on page 20.

Circular Connectors CA Series

Technical Information

Product Description		
Order Designation	CA 3 GS	CA 6 GS
		
Description	Circular connector, male appliance connector with flange, 3-pin + PE	Circular connector, male appliance connector with flange, 6-pin + PE
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	DIN EN 61984/IEC 61984 (VDE 0627)	
Approvals	UL, VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	PA 66-GF	
Contact Holder Material	PA 66-GF	
Contact Material/Surface Finish	Cu/Ag	
O-Ring Material	NBR	
Mechanical Data		
Degree of Protection [IEC 60529]	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Terminal Type	Screw	Solder, hollow contacts
Electrical Data		
Contact Resistance	3 mΩ	5 mΩ
Operating Voltage	400 V AC/250 V DC	250 V AC/DC
Rated Current	10 A DC/16 A AC	10 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 male receptacle connector with round seal in plastic bag	1 male receptacle connector with round seal in plastic bag
Technical Drawing		
		

Pin Assignment

3-pin + PE



No prescribed pin assignment

6-pin + PE



No prescribed pin assignment

Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Characteristics
932322100	CA 3 GS	3 + PE	max. 2.5 mm ²	
10044	CA 3 GS red	3 + PE	max. 2.5 mm ²	
10049	CA 3 GS blue	3 + PE	max. 2.5 mm ²	
10050	CA 3 GS white	3 + PE	max. 2.5 mm ²	
932326100	CA 6 GS	6 + PE	max. 0.75 mm ²	
10051	CA 6 GS red	6 + PE	max. 0.75 mm ²	
10052	CA 6 GS blue	6 + PE	max. 0.75 mm ²	
10053	CA 6 GS white	6 + PE	max. 0.75 mm ²	

Conversion table mm² to AWG on page 20.



Hirschmann Circular Connectors CM Series



Be certain. Belden.

Robust Connectors in Accordance with MIL-C-5015 or VG 95342

Plug-in connectors compatible with MIL-C-5015 or VG 95342, these 4 to 17-pin connectors are ideal for use in the toughest environments. The housing is made of impact-proof, fiberglass-reinforced plastic, with threaded coupling for continuous, problem-free connection. The integrated strain relief also ensures easy handling and quick assembly.

Product Features

- Extremely robust plastic housing for outdoor applications
- 5 to 17-pin with and without PE
- Proven system based on military specifications
- Compatible with metal connectors complying with MIL-C-5015 or VG 95342

Benefits

- Touch-protected connector system for increased personal safety (DIN EN 61984)

- High flexibility through a large number of versions for a wide range of applications
- Robust housing and high-quality contact surfaces ensure a long life and maximum productivity

Applications

With almost unlimited possibilities in general mechanical engineering, control systems, medical devices, or in the chemicals industry, e.g., as control line connections in:



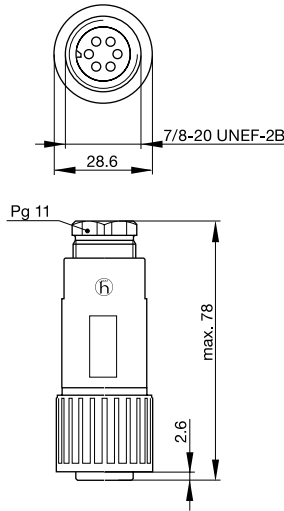
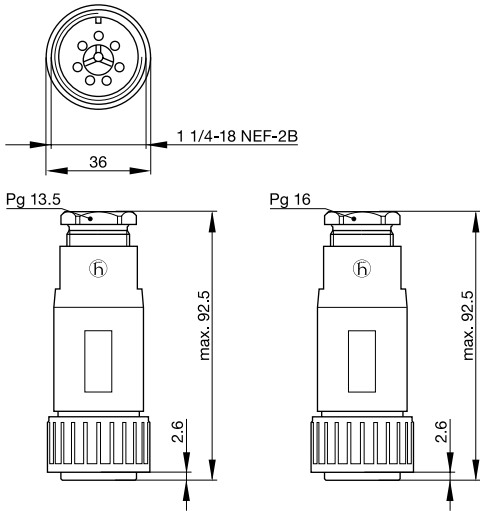
- Hydraulics, pneumatics, and special mechanical engineering
- Continuous and proportional valves
- Test and inspection equipment in environmental engineering
- Flow monitors or dosing systems

As AC/DC converters for:

- Solar technology
- Stage equipment
- Automatic billboards in outdoor spaces

Circular Connectors CM Series – Cable Sockets






















Technical Information

Product Description		
Order Designation	CM 06 EA 14S...	CM 06 EA 20...
		
Description	Circular cable connector, strain relief via cable clamp, 4 to 6-pin, PG11 cable screw coupling	Circular cable connector, female, strain relief via cable clamp, 7 to 17-pin, PG13.5 to PG16 cable screw coupling
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	MIL-C 5015 bzw. VG 95 342	
Approvals	-	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing Material/Grip	PA 66 GF	
Contact Holder Material	PA 66 GF	
Contact Material/Surface Finish	CuZn, silver-plated	
O-Ring Material	NBR	
Mechanical Data		
Degree of Protection [IEC 60529]	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts)	
Cable Cross-section	max. 1 mm ²	max. 1.5 mm ²
Terminal Type	Solder	
Electrical Data		
Contact Resistance	≤ 5 mΩ	
Operating Voltage	50 V AC/DC	
Rated Current	10 A	7-pin 10 A, 14-pin 5 A, 17-pin 5 A
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 female connector, unmounted, assembly instructions	1 female connector, unmounted, assembly instructions
Accessories to be Ordered Separately	Protective cap CM 06 SD 14S (Order No. 831621100)	Protective cap CM 06 SD 20 (Order No. 831767100)
Technical Drawing		
		

Pin Assignment





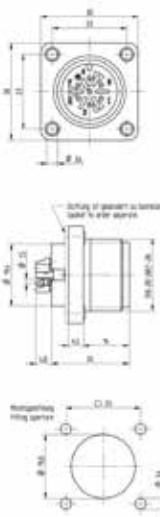
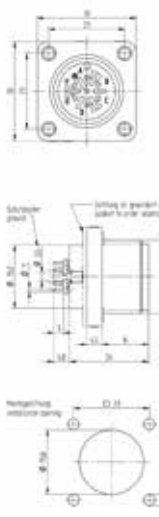
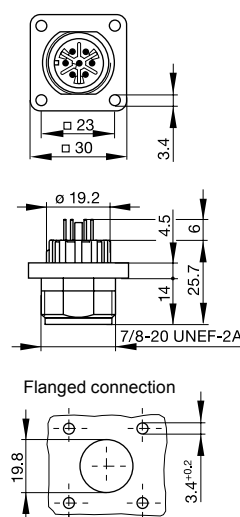
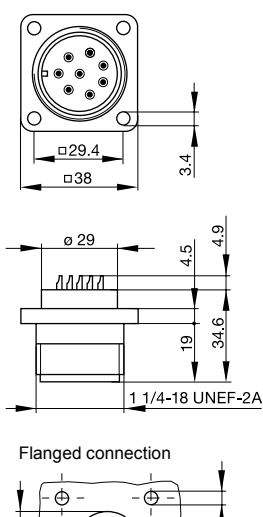
4-pin	5-pin	6-pin	6-pin + PE	7-pin	14-pin	17-pin
						

Order Information








Order No.	Order Designation	No. of Pins	Cable Gland	Characteristics
932457100	CM 06 EA 14S-2 S	4	Ø 8.0 to 10.0 mm (PG11)	  
932841100	CM 06 EA 14S-5 S	5	Ø 8.0 to 10.0 mm (PG11)	  
932458100	CM 06 EA 14S-6 S	6	Ø 8.0 to 10.0 mm (PG11)	  
932460100	CM 06 EA 14S-61 S	6 + PE	Ø 8.0 to 10.0 mm (PG11)	  
932842100	CM 06 EA 20-7 S	7	Ø 10.0 to 12.0 mm (PG13.5)	  
933067100	CM 06 EA 20-27 S	14	Ø 12.0 to 14.0 mm (PG16)	  
933068100	CM 06 EA 20-29 S	17	Ø 12.0 to 14.0 mm (PG16)	  

Circular Connectors CM Series – Surface Mounted Connectors




































Technical Information

Product Description				
Order Designation	CM 02 E 14S...	CM 02 L 14S-61 P (F)	CM 02 L 14S-61 P (F) Metall	CM 02 E 20...
				
Description	Male appliance connector with flange, contacts with solder bucket, 4 to 6-pin	Male appliance connector with flange, 6-pin + PE, soldering pin, with/without filter capacitors 6 x 1 nF	Male appliance connector metal housing with flange, 6-pin + PE, soldering pin, with/without filter capacitors 6 x 1 nF	Male appliance connector with flange, contacts with solder bucket, 8 to 17-pin
RoHS-compliant (2011/65/EU)	Yes			
(Construction Type) Standard	MIL-C 5015 bzw. VG 95 342			
Approvals	-			
Technical Data				
Ambient Temperature	-40 °C to +90 °C			
Housing Material/Grip	PA 66 GF		Zinc die casting, nickel-plated	PA 66 GF
Contact Holder Material	PA 66 GF			
Contact Material/Surface Finish	CuZn, silver-plated			
Material Seal	NBR			
Mechanical Data				
Degree of Protection [IEC 60529]	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts)			
Cable Cross-section	max. 1 mm ²	-	-	max. 1.5 mm ²
Electrical Data				
Contact Resistance	≤ 10 mΩ			
Operating Voltage	50 V AC/DC			
Rated Current	with filter: 2 A, without filter: 10 A			
Pollution Degree	3			
Accessories				
Scope of Delivery or Accessories (incl.)	1 male receptacle connector	1 male receptacle connector	1 male receptacle connector	1 male receptacle connector
Accessories to be Ordered Separately	Flat seal CM 02 D 14S (Order No. 733321002) Protective cap CM 02 SD 14S (Order No. 831620100) Protective cover SHK 1 (Order No. 733849001)	Flat seal CM 02 D 14S (Order No. 733321002) Protective cap CM 02 SD 14S (Order No. 831620100) Protective cover SHK 1 (Order No. 733849001)	Flat seal CM 02 D 14S (Order No. 733321002) Protective cap CM 02 SD 14S (Order No. 831620100) Protective cover SHK 1 (Order No. 733849001)	Flat seal CM 02 D 20 (Order No. 733818002) Protective cap CM 02 SD 20 (Order No. 831766100) Protective cover SHK 1 (Order No. 733849001)
Technical Drawing				
				

Pin Assignment

4-pin	5-pin	6-pin	6-pin + PE	7-pin	14-pin	17-pin
						

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Characteristics
932449100	CM 02 E 14S-2 P	4	solder	  
932843100	CM 02 E 14S-5 P	5	solder	  
932451100	CM 02 E 14S-6 P	6	solder	  
932455100	CM 02 E 14S-61 P	6 + PE	solder	  
932456100	CM 02 L 14S-61 P	6 + PE	solder	  
932988100	CM 02 L 14S-61 P (F)	6-pin + PE with filter	solder	  
934390001	CM 02 L 14S-61 P (F) metal	6-pin + PE with filter	solder	   
934391001	CM 02 L 14S-61 P metal	6 + PE	solder	   
932845100	CM 02 E 20-7 P	8 + PE	solder	  
933062100	CM 02 E 20-27 P	14 + PE	solder	  
933063100	CM 02 E 20-29 P	17 + PE	solder	  



Rectangular Connectors G Series



Be certain. Belden.

The Compact Connector with a Range of Plug Interfaces

Where other connectors may find conditions too tight, the G series is right at home in small spaces – and that's why the rectangular connector with compact dimensions has become a fixture in the world of miniaturization.

Product Features

- Compact rectangular connectors with IP65 protection
- Robust plastic housing
- Meets VDE 0660 specifications and protected against dust and water jet spray
- With or without protective contact and always with encoding to protect against misidentification
- 2 to 6-pin with and without PE

Benefits

- High flexibility thanks to the large number of variants: female and male connectors, with overmolded cable or field attachable or as appliance connectors
- Globally proven and reliable system for a number of applications, especially in tough and compact environmental conditions (e.g., mining)
- Robust housing for maximum availability of machines and systems
- Easy installation saves money

Applications




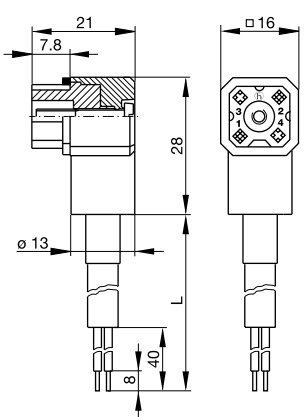
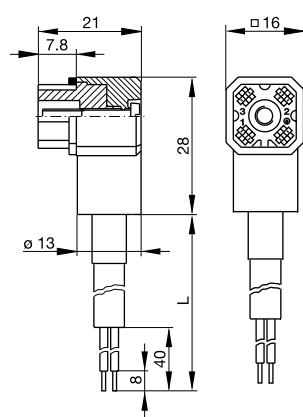
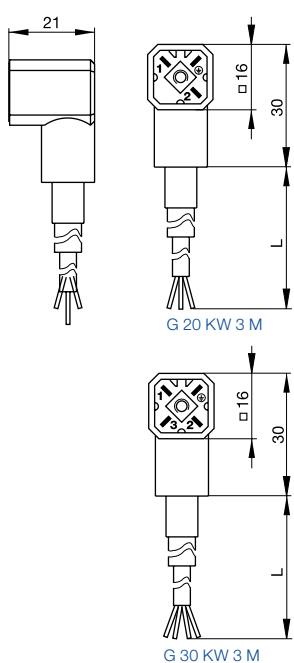
The G series is used for grid voltage and cable connections to small drives, for example, and in hydraulic and pneumatic controls, medical devices and photocells, microfilm viewers, refrigerated display cases, and garage door controls.

Since even harsh environments are no problem for the G series, you can particularly find these connectors:







- On oil rigs and in mines
- On container ships and at container loading stations
- In heavy-duty construction machinery
- In bottling and paint systems

Rectangular Connectors G Series

Technical Information

Product Description			
Order Designation	G x KW 1 F	G x0 KW 3 F	G x0 KW 3 M
			
Description	Pre-assembled female connector with overmolded cable, without ground contact (PE)	Pre-assembled female connector with overmolded cable, with ground contact (PE)	Pre-assembled male connector with overmolded cable, with ground contact (PE)
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61984, DIN EN 61984 (VDE 0627)		
Approvals	VDE		
Technical Data			
Ambient Temperature	-40 °C to +90 °C, mind cable temperature range		
Housing/Grip/Screw Coupling	G 2 KW 1 F 1.5M: PA 66 G 4 KW 1 F 2M: PA 6 GF		PA 6 GF
Contact Holder	G 2 KW 1 F 1.5M: PA 66 G 4 KW 1 F 2M: PA 6 GF		PA 6 GF
Contact	CuZn, tin-plated		
Seal(s)	NBR		
Flammability Class	G 2 KW 1 F 1.5M Housing: UL94 V-0 Contact holder material: UL94 HB G 4 KW 1 F 2M Housing: UL94 HB Contact holder material: UL94 HB		Housing: UL94 HB Contact holder material: UL94 HB
Mechanical Data			
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 4 mΩ	≤ 10 mΩ	≤ 5 mΩ
Operating Voltage	G 2 KW 1 F 1.5M: 50 V AC/DC G 4 KW 1 F 2M: 50 V AC/DC	250 V AC/DC	
Rated Current at +40 °C	10 A		
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	1 female connector with overmolded cable, 1 central screw M3 x 18, 1 seal		1 male connector with overmolded cable, 1 central screw M3 x 18, 1 seal
Technical Drawing			
			




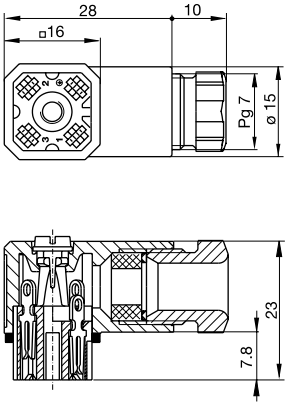
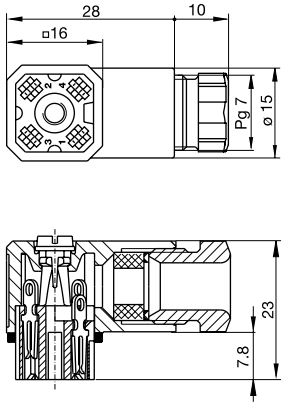
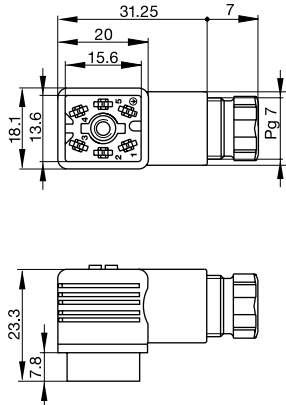
Order Information

Order No.	Order Designation	No. of Pins	Conductor Size	Jacket	Specific Characteristics	Characteristics
931494603	G 2 KW 1 F 1.5M	2	0.75 mm ²	Rubber	Plug-in compatibility with: G 4 A 1 M, G 4 A 1 M MT, G 4 A 5 M, G 4 E 1 M	
931805602	G 4 KW 1 F 2M	4	0.75 mm ²	PVC	Plug-in compatibility with: G 4 A 1 M, G 4 A 1 M MT, G 4 A 5 M, G 4 E 1 M	
932041002	G 20 KW 3 F 3M	2 + PE	1.0 mm ²	PVC	Plug-in compatibility with: G 30 A 3 M, G 30 A 5 M, G 30 E 3 M	
931608003	G 30 KW 3 F 2M	3 + PE	1.0 mm ²	PVC	Plug-in compatibility with: G 30 A 3 M, G 30 A 5 M, G 30 E 3 M	
931793001	G 20 KW 3 M	2 + PE	0.75 mm ²	PVC	Plug-in compatibility with: G 30 E 3 F	
931783001	G 30 KW 3 M	3 + PE	0.75 mm ²	PVC	Plug-in compatibility with: G 30 E 3 F	

Conversion table mm² to AWG on page 20.

Rectangular Connectors G Series





































Technical Information

Product Description			
Order Designation	G x0 W 3 F	G 4 W 1 F	GO x WF
			
Description	Field attachable female cable connector with PG7 Cable Gland and solder contacts, with ground contact (PE)	Field attachable female cable connector with PG7 Cable Gland and solder contacts, without ground contact (PE)	Field attachable female cable connector with PG7 Cable Gland and solder contacts, with/without ground contact (PE)
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61984, DIN EN 61984 (VDE 0627)		
Approvals	VDE		
Technical Data			
Ambient Temperature	-40 °C to +90 °C	-40 °C to +90 °C *HT* version: -40 °C to +125 °C	-40 °C to +90 °C
Housing/Grip/Screw Coupling	PA 6 GF		PA 6
Contact Holder	PA 6 GF		PA 6
Contact	CuZn, tin-plated	CuZn, tin-plated *HT* version: CuSn, tin-plated *AU* version: CuZn, gold-plated	CuZn, tin-plated
Screw Coupling/Nut Material	Pressure screw *Gray* version: PA 6 GF *Black* version: PA 6 GF	Pressure screw: PA 66 GF	
Seal(s)	Flat seal: NBR Cable Gland: SBR/NBR	Flat seal: NBR *HT* version: EPDM Cable Gland: SBR/NBR	GO 51 WF: CR (chloroprene rubber) GO 6 WF/GO 60 WF: NBR
Flammability Class	Housing: UL94 HB Contact holder material: UL94 HB Pressure screw: UL94 HB		Housing: UL94-1 Contact holder material: UL94 V-1 Pressure screw: UL94 V-0
Mechanical Data			
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	250 V AC/DC	50 V AC/DC	GO 51 WF/GO 60 WF: 250 V AC/DC GO 6 WF: 50 V AC/DC
Rated Current at +40 °C	6 A		
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	1 female connector with PG7 screw coupling, 1 central screw M3 x 20, 1 seal, unmounted in plastic bag	1 female connector with PG7 screw coupling, 1 central screw M3 x 20, 1 seal, *UM* version: unmounted in plastic bag	1 female connector with PG7 screw coupling, 1 central screw M3 x 20, 1 seal, unmounted in plastic bag
Technical Drawing			
			

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland
932185100	G 20 W 3 F BLACK	2 + PE	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932185106	G 20 W 3 F GRAY	2 + PE	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932186100	G 30 W 3 F BLACK	3 + PE	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932186106	G 30 W 3 F GRAY	3 + PE	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932157100	G 4 W 1 F BLACK	4	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932157106	G 4 W 1 F GRAY	4	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932157200	G 4 W 1 F HT BLACK	4	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932157206	G 4 W 1 F HT GRAY	4	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
934386100	G 4 W 1 F AU UM SW	4	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
934386106	G 4 W 1 F AU UM GR	4	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
934386206	G 4 W 1 F AU GRAY	4	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932351200	GO 51 WF	5 + PE	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932447100	GO 6 WF	6	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)
932448100	GO 60 WF SW	6	solder	0.14 to 0.5 mm ²	Ø 4.0 to 7.5 mm (PG7)



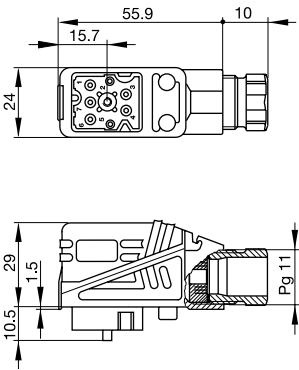
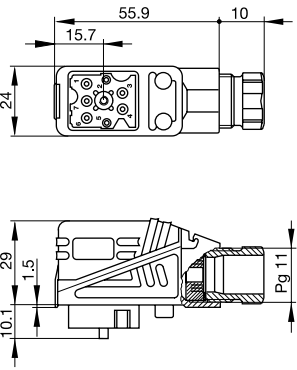
Order Information (continued)

Order No.	Order Designation	Specific Characteristics	Characteristics
932185100	G 20 W 3 F BLACK	Plug-in compatibility with: G 30 A 3 M, G 30 A 5 M, G 30 E 3 M	  
932185106	G 20 W 3 F GRAY	Plug-in compatibility with: G 30 A 3 M, G 30 A 5 M, G 30 E 3 M	 
932186100	G 30 W 3 F BLACK	Plug-in compatibility with: G 30 A 3 M, G 30 A 5 M, G 30 E 3 M	  
932186106	G 30 W 3 F GRAY	Plug-in compatibility with: G 30 A 3 M, G 30 A 5 M, G 30 E 3 M	 
932157100	G 4 W 1 F BLACK	Plug-in compatibility with: G 4 A 1 M, G 4 A 1 M MT, G 4 A 5 M, G 4 E 1 M	  
932157106	G 4 W 1 F GRAY	Plug-in compatibility with: G 4 A 1 M, G 4 A 1 M MT, G 4 A 5 M, G 4 E 1 M	 
932157200	G 4 W 1 F HT BLACK	Plug-in compatibility with: G 4 A 1 M, G 4 A 1 M MT, G 4 A 5 M, G 4 E 1 M	  
932157206	G 4 W 1 F HT GRAY	Plug-in compatibility with: G 4 A 1 M, G 4 A 1 M MT, G 4 A 5 M, G 4 E 1 M	 
934386100	G 4 W 1 F AU UM SW	Plug-in compatibility with: G 4 A 1 M AU, G 4 A 5 M AU	  
934386106	G 4 W 1 F AU UM GR	Plug-in compatibility with: G 4 A 1 M AU, G 4 A 5 M AU	 
934386206	G 4 W 1 F AU GRAY	Plug-in compatibility with: G 4 A 1 M AU, G 4 A 5 M AU	 
932351200	GO 51 WF	Plug-in compatibility with: GO 51 FAV M, GO 51 UM	  
932447100	GO 6 WF	Plug-in compatibility with: GO 6 FAV M, GO 6 UM	  
932448100	GO 60 WF SW	Plug-in compatibility with: GO 60 FAV M, GO 60 UM	  










Conversion table mm² to AWG on page 20.

Rectangular Connectors G Series

Technical Information

Product Description		
Order Designation	GO 070 WF	GO xx0 WF
		
Description	Field attachable female connector with PG11 Cable Gland and screw-type contacts, without ground contact (PE)	Field attachable female connector with PG11 Cable Gland and screw-type contacts, with/without ground contact (PE)
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61984, DIN EN 61984 (VDE 0627)	
Approvals	-	
Technical Data		
Ambient Temperature	Connector: -40 °C to +90 °C, seal: -30 °C to +90 °C	
Housing/Grip/Screw Coupling	PA 66 GF	
Contact Holder	PA 66 GF	
Contact	CuZn, tin-plated	
Screw Coupling/Nut Material	Cover: PA 66 GF, pressure screw: PA 6 GF	
Seal(s)	Flat seal: NBR, cover: NBR, Cable Gland: SBR/NBR	
Flammability Class	Housing: UL94 V-0, cover: UL94 V-0, contact holder material: UL94 V-0, pressure screw: UL94 HB	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	50 V AC/DC	250 V AC/DC for PE-version, 50 V AC/DC for non-PE-version
Rated Current at +40 °C	10 A AC/6 A DC	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 female connector with PG11 screw coupling, 1 central screw M3 x 35, 2 seals, unmounted in plastic bag	
Technical Drawing		
		



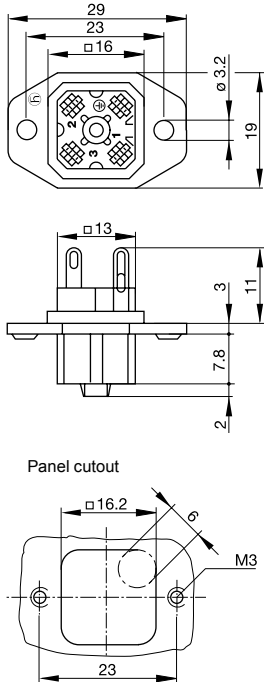
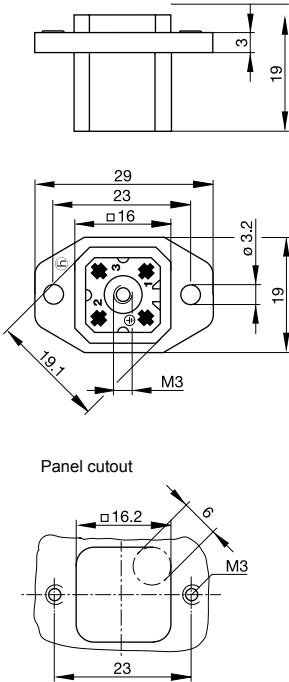
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Specific Characteristics	Characteristics
932483100	GO 070 WF	7	screw	0.25 to 1.0 mm ²	Ø 4.0 to 10 mm (PG11)	Plug-in compatibility with: GO 070 FA M	  
932484100	GO 610 WF	6 + PE	screw	0.25 to 1.0 mm ²	Ø 4.0 to 10 mm (PG11)	Plug-in compatibility with: GO 610 FA M	  
932485100	GO 700 WF	7	screw	0.25 to 1.0 mm ²	Ø 4.0 to 10 mm (PG11)	Plug-in compatibility with: GO 700 FA M	  







Conversion table mm² to AWG on page 20.

Rectangular Connectors G Series

Technical Information



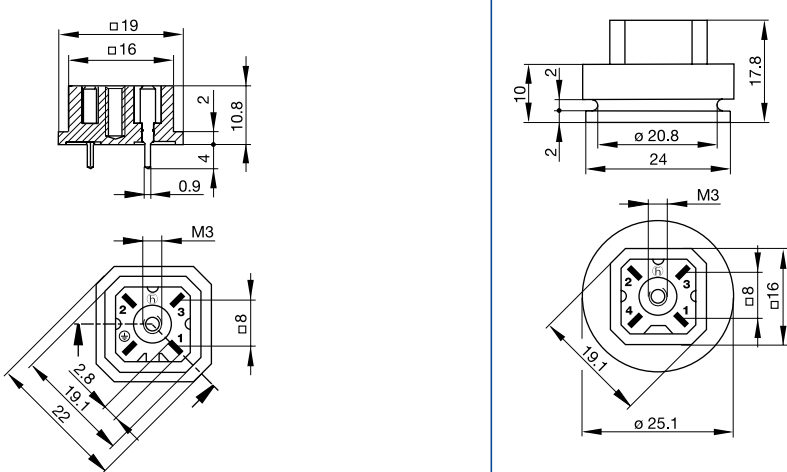
Product Description		
Order Designation	G 30 E 3 F	G 30 E 3, G 4 E 1
		
Description	Female receptacle connector with octagonal flange and solder contacts	Male receptacle connector with octagonal flange, for crimp contacts
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61984, DIN EN 61984 (VDE 0627)	
Approvals	VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing/Grip/Screw Coupling	PA 6 GF	
Contact Holder	PA 6 GF	
Contact	CuZn, tin-plated	CuZn, tin-plated (contacts RMC 280 must be ordered separately)
Seal(s)	NBR	G 30 E 3 M...: Seal G 30 E-1 must be ordered separately G 4 E 1 M...: Seal G 30 E-2 must be ordered separately
Flammability Class	Contact holder material: UL94-HB	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	250 V AC/DC	G 30 E 3 M...: 250 V AC/DC G 4 E 1 M...: 50 V AC/DC
Rated Current at +40 °C	10 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 female receptacle connector	1 male receptacle connector (housing) without crimp contacts
Accessories to be Ordered Separately	Flat seal: G 30 E-1 732135002	G 30 E 3 M... Flat seal: G 30 E-1 732135002 G 4 E 1 M... Flat seal: G 30 E-2 733415002
Technical Drawing		
		

Order Information





Order No.	Order Designation	No. of Pins	Terminal Type	Specific Characteristics	Characteristics
931782106	G 30 E 3 F	3 + PE	solder	Plug-in compatibility with: G 20 KW 3 M..., G 30 KW 3 M...	 
731996506	G 30 E 3 M	3 + PE 2 + PE optional	crimping	Plug-in compatibility with: G 20 KW 3 F..., G 20 W 3 F..., G 30 KW 3 F... G 30 W 3 F...	 
731802506	G 4 E 1 M GRAY	4, 3 or 2 optionally	crimping	Plug-in compatibility with: G 2 KW 1 F..., G 4 KW 1 F..., G 4 W 1 F...	 

Rectangular Connectors G Series

Technical Information




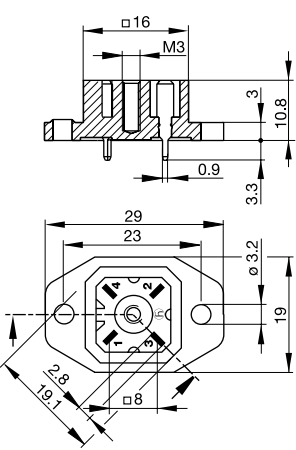
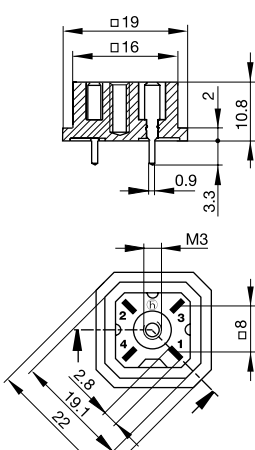
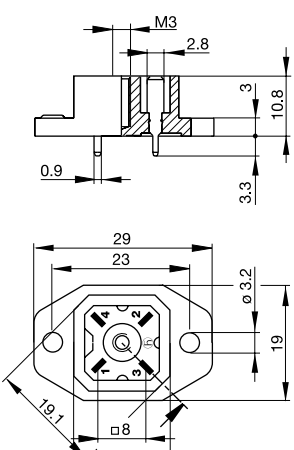
Product Description		
Order Designation	G 30 A 3 M	G 4 A 1 M MT
		
Description	Surface mounted male connector with solder contacts for printed circuits	Surface mounted male connector for press fitting, with solder contacts
RoHS-compliant (2011/65/EU)	Yes	
(Construction Type) Standard	IEC 61984, DIN EN 61984 (VDE 0627)	
Approvals	VDE	
Technical Data		
Ambient Temperature	-40 °C to +90 °C	
Housing/Grip/Screw Coupling	PA 6 GF	PA 66 GF
Contact Holder	PA 6 GF	PA 66 GF
Contact	CuZn, tin-plated	
Flammability Class	Contact holder material: UL94 V-0	
Mechanical Data		
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)	
Electrical Data		
Contact Resistance	≤ 10 mΩ	
Operating Voltage	250 V AC/DC	50 V AC/DC
Rated Current at +40 °C	10 A	
Pollution Degree	3	
Accessories		
Scope of Delivery or Accessories (incl.)	1 surface mounted male connector	
Technical Drawing		
		

Order Information
















Order No.	Order Designation	No. of Pins	Terminal Type	Specific Characteristics	Characteristics
931700106	G 30 A 3 M GRAY	3 + PE	solder (pins for printed circuits)	Plug-in compatibility with: G 20 KW 3 F..., G 20 W 3 F..., G 30 KW 3 F..., G 30 W 3 F...	
932823100	G 4 A 1 M MT	4	solder	Plug-in compatibility with: G 2 KW 1 F..., G 4 KW 1 F..., G 4 W 1 F...	  

Rectangular Connectors G Series

Technical Information




Product Description			
Order Designation	G 30 A 5 M	G 4 A 1 M...	G 4 A 5 M...
			
Description	Male appliance connector with octagonal flange screw fixing and solder contacts for printed circuits	Male appliance connector with solder contacts for printed circuits	Male appliance connector with octagonal flange screw fixing and solder contacts for printed circuits
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61984, DIN EN 61984 (VDE 0627)		
Approvals	VDE		
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing/Grip/Screw Coupling	PA 66 GF	PA 6 GF *AU BLACK* version: PA 66 GF	*Black* version: PA 66 GF *Gray* version: PA 6 GF
Contact Holder	PA 66 GF	PA 6 GF *AU BLACK* version: PA 66 GF	*Black* version: PA 66 GF *Gray* version: PA 6 GF
Contact	CuZn, tin-plated	CuZn, tin-plated *AU BLACK* version: CuZn, gold-plated	CuZn, tin-plated *AU* version: CuZn, gold-plated
Flammability Class	Contact holder material: UL94 V-0	Contact holder material: UL94 HB *AU BLACK* version: UL94 V-0	*Black* version: UL94 V-0 *Gray* version: UL94 HB
Mechanical Data			
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	250 V AC/DC	50 V AC/DC	
Rated Current at +40 °C	10 A		
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	1 surface mounted male connector		
Accessories to be Ordered Separately	Flat seal: G 30 E-2 733415002	-	Flat seal: G 30 E-2 733415002
Technical Drawing			
			

Order Information




























Order No.	Order Designation	No. of Pins	Terminal Type	Specific Characteristics	Characteristics
932840100	G 30 A 5 M BLACK	3 + PE	solder (pins for printed circuits)	Plug-in compatibility with: G 20 KW 3 F..., G 20 W 3 F..., G 30 KW 3 F..., G 30 W 3 F...	  
931807106	G 4 A 1 M	4	solder (pins for printed circuits)	Plug-in compatibility with: G 2 KW 1 F..., G 4 KW 1 F..., G 4 W 1 F...	 
931807300	G 4 A 1 M AU BLACK	4	solder (pins for printed circuits)	Plug-in compatibility with: G 2 KW 1 F..., G 4 KW 1 F..., G 4 W 1 F...	  
932092100	G 4 A 5 M BLACK	4	solder (pins for printed circuits)	Plug-in compatibility with: G 2 KW 1 F..., G 4 KW 1 F..., G 4 W 1 F...	  
932092106	G 4 A 5 M GRAY	4	solder (pins for printed circuits)	Plug-in compatibility with: G 2 KW 1 F..., G 4 KW 1 F..., G 4 W 1 F...	 
932092206	G 4 A 5 M AU GRAY	4	solder (pins for printed circuits)	Plug-in compatibility with: G 2 KW 1 F..., G 4 KW 1 F..., G 4 W 1 F...	 

Rectangular Connectors G Series

Technical Information

Product Description			
Order Designation	GO xx UM	GO xx FAV M	GO xxx FA M
			
Description	Male appliance connector with solder contacts for printed circuits	Male appliance connector with octagonal flange screw fixing and solder contacts	male appliance connector with rectangular flange screw fixing and solder contacts
RoHS-compliant (2011/65/EU)	Yes		
(Construction Type) Standard	IEC 61984, DIN EN 61984 (VDE 0627)		
Approvals	-		
Technical Data			
Ambient Temperature	-40 °C to +90 °C	-30 °C to +90 °C	Connector: -30 °C to +90 °C Seal: -30 °C to +90 °C
Housing/Grip/Screw Coupling	PC GF		
Contact Holder	PC GF		
Contact	CuZn, tin-plated		
Flammability Class	Contact holder material: UL94 V-0		
Mechanical Data			
Degree of Protection	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	GO 51 UM: 250 V AC/DC GO 6 UM: 50 V AC/DC GO 60 UM: 250 V AC/DC	GO 51 FAV M: 250 V AC/DC GO 6 FAV M: 50 V AC/DC GO 60 FAV M: 250 V AC/DC	GO 070 FA M: 50 V AC/DC GO 610 FA M: 250 V AC/DC GO 700 FA M: 250 V AC/DC
Rated Current at +40 °C	6 A		
Pollution Degree	3		
Accessories			
Scope of Delivery or Accessories (incl.)	1 surface mounted male connector	1 surface mounted male connector, 1 flat seal	
Technical Drawing			

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Specific Characteristics	Characteristics
932352100	GO 51 UM	5 + PE	solder	Plug-in compatibility with: GO 51 WF	  
932350100	GO 6 UM	6	solder	Plug-in compatibility with: GO 6 WF	  
932344100	GO 60 UM	6	solder	Plug-in compatibility with: GO 60 WF	  
932919100	GO 51 FAV M	5 + PE	solder	Plug-in compatibility with: GO 51 WF	  
932669100	GO 6 FAV M	6	solder	Plug-in compatibility with: GO 6 WF	  
932918100	GO 60 FAV M	6	solder	Plug-in compatibility with: GO 60 WF	  
932470100	GO 070 FA M	7	solder	Plug-in compatibility with: GO 070 WF	  
932478100	GO 610 FA M	6 + PE	solder	Plug-in compatibility with: GO 610 WF	  
932477100	GO 700 FA M	7	solder	Plug-in compatibility with: GO 700 WF	  



Circular Connectors NR Series



Be certain. Belden.

Robust Circular Connectors to DIN EN 175201-804

Impact-resistant, shatter-proof, fiberglass-reinforced housing – the NR series housing is almost indestructible. In addition to being extremely robust, these circular connectors are compact and available in various designs, making them very versatile.

Product Features

- Shock and vibration-proof
- IP65 protection
- Watertight, IP67 protection versions
- Shielded and unshielded versions

Benefits




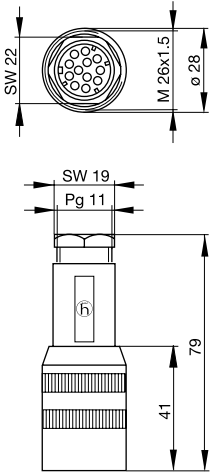
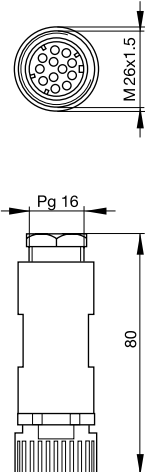
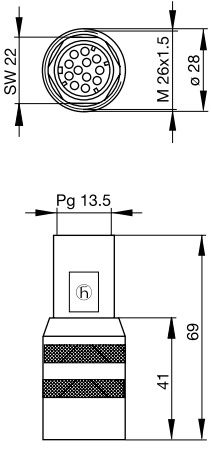
- Time and cost saving during installation by using crimp contacts
- High flexibility through the large number of different housings for a wide range of applications
- Robust housing and high-quality contact surfaces ensure a long service life for the connectors and therefore maximum productivity

Applications













- Connection of compactors and conveyor systems
- Transmission of control pulses, such as in hydraulics and pneumatics
- Powering of machine tools
- Connection of small drives and pump motors

Circular Connectors NR Series

Technical Information

Product Description			
Order Designation	NxR EF	N11R EF F	NxR EFS
			
Description	Circular cable connector, female, straight, strain relief via clamping cage, spring-loaded female contacts, 6 to 11-pin, PG11 cable screw coupling	Circular cable connector, female, straight, strain relief via clamping cage, spring-loaded female contacts, 11-pin, PG16 cable screw coupling	Circular cable connector, female, straight, shielded, strain relief via clamping cage, spring-loaded female contacts, 6 to 11-pin, PG13.5 cable screw coupling
(Construction Type) Standard	DIN EN 175201-804, EF design		
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing Material/Grip	PBT GF (threading: AIMgSi)	PBT GF (threading: PA 66)	Zinc die casting, nickel-plated (thread: CuZn, nickel-plated)
Contact Holder Material	PBT GF		
Contact Material/Surface Finish	CuZn, silver-plated, must be ordered separately 6-pin: RBC 162 Ag, RBCB 162 Ag, 11-pin: RBC 162/1 Ag, RBCB 162/1		
Mechanical Data			
Degree of Protection [IEC 60529]	IP65, N6R EF: IP67 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	6-pin + PE: 250 V AC/DC, 11-pin + PE: 50 V AC/60 V DC	50 V AC/60 V DC	25 V AC/50 V DC
Rated Current	6-pin + PE: 10 A, 11-pin + PE: 5 A	5 A	6-pin + PE: 10 A, 11-pin + PE: 5 A
Accessories			
Scope of Delivery or Accessories (incl.)	1 female connector, unmounted in plastic bag, with assembly instructions	1 female connector, unmounted in plastic bag, with assembly instructions	1 female connector, unmounted in plastic bag, with assembly instructions
Accessories to be Ordered Separately	RBC 162 AG, RBCB 162 AG N6R EF: NC6 encoding Order No. 831002011, contacts RBC 162 N11R EF: contacts RBC 162/1	Contacts RBC 162/1, RBCB 162/1	EMC PG screw coupling N6R-41 Order No. 734605001 EMC PG screw coupling N6R-42 Order No. 734606001 N6R: NC 6 encoding, Order No. 831002011, contacts RBC 162 N11R: contacts RBC 162, RBCB 162/1
Technical Drawing			
			




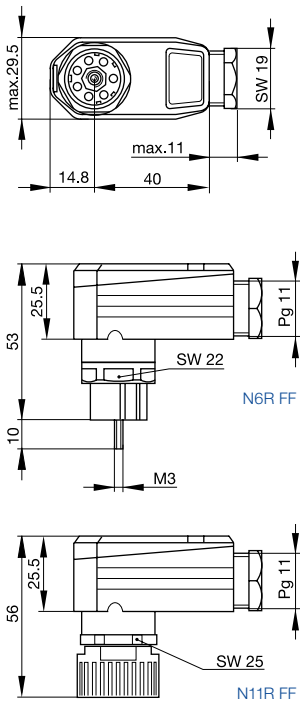
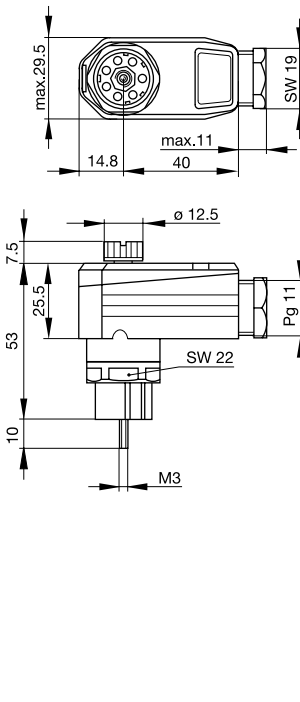
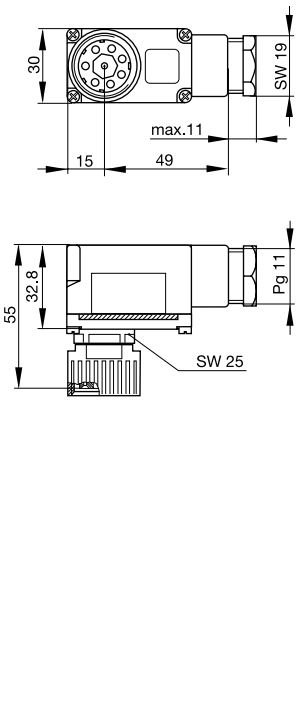
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
931720001	N6R EF	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 
932630106	N11R EF	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG11)	 
933101100	N11R EF F	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG16)	 
933711001	N6R EF S	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG13.5)	  
933700001	N11R EF S	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG13.5)	  









Conversion table mm² to AWG on page 20.

Circular Connectors NR Series

Technical Information

Product Description			
Order Designation	NxR FF	N6R FF R	N6R FF S 11
			
Description	Circular cable connector, female, angled, strain relief via clamping cage, spring-loaded female sockets, crimp contacts, 6 to 11-pin + PE, PG11 cable screw coupling	Circular cable connector, female, angled, strain relief via clamping cage and knurled screw, spring-loaded female sockets, crimp contacts, 6-pin + PE, PG11 cable screw coupling	Circular cable connector, female, angled, strain relief via clamping cage, transparent cover, for installation of a LED insert, spring-loaded female sockets, screw terminal contacts, 6-pin + PE, PG11 cable screw coupling
(Construction Type) Standard	DIN EN 175201-804, FF design		
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing Material/Grip	PBT GF		PA 6 (thread: PA 66)
Contact Holder Material	PBT GF		PA 66 GF
Contact Material/Surface Finish	CuZn, silver-plated, must be ordered separately N6R...: RBC 162 Ag, RBCB 162 Ag, N11R...: RBC 162/1 Ag, RBCB 162/1 Ag		CuZn, silver-plated
Mechanical Data			
Degree of Protection [IEC 60529]	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 5 mΩ	≤ 10 mΩ	
Operating Voltage	6-pin + PE: 250 V AC/DC, 11-pin + PE: 50 V AC/60 V DC	250 V AC/DC	
Rated Current	6-pin + PE: 10 A, 11-pin + PE: 5 A	10 A	
Accessories			
Scope of Delivery or Accessories (incl.)	1 female connector, unmounted in plastic bag, with assembly instructions	1 female connector with knurled screw, unmounted in plastic bag, with assembly instructions	1 female connector, unmounted in plastic bag, with assembly instructions
Accessories to be Ordered Separately	N6R...: NC6 encoding, Order No. 831002011, contacts RBC 162 N11R...: contacts RBC 162/1	N6R...: NC6 encoding, Order No. 831002011, contacts RBC 162	N6R...: NC6 encoding, Order No. 831002011 LED insert N6R 3 LED 24, Order No. 831411001 LED insert N6R 3 LED 24 DB, Order No. 831618001
Technical Drawing			
			




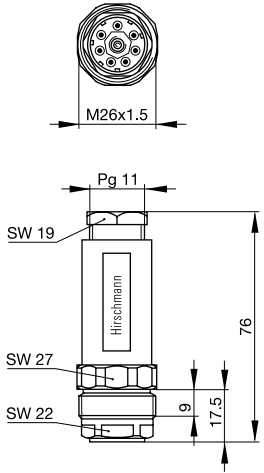
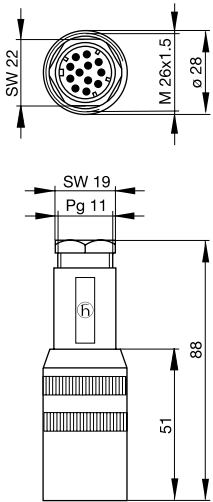
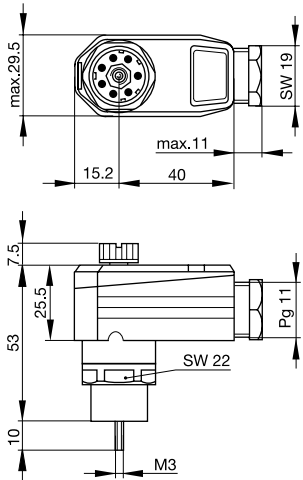
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
931435106	N6R FF	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 
932632106	N11R FF	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG11)	 
931553106	N6R FF R	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 
932194112	N6R FF S 11	6 + PE	screw	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 











Conversion table mm² to AWG on page 20.

Circular Connectors NR Series

Technical Information

Product Description			
Order Designation	NxR DM	NxR EM	NxR FM R
			
Description	Circular cable connector, male, straight, strain relief via clamping cage, crimp pin contacts, 6 to 11-pin + PE, PG11 cable screw coupling	Circular cable connector, male, straight, strain relief via clamping cage, crimp pin contacts, 6 to 11-pin + PE, PG11 cable screw coupling	Circular cable connector, male, angled, with knurled screw, strain relief via clamping cage, crimp pin contacts, 6-pin + PE, PG11 cable screw coupling
(Construction Type) Standard	DIN EN 175201-804, DM design	DIN EN 175201-804, EM design	DIN EN 175201-804, FM design
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing Material/Grip	PA 6	PBT GF (thread: AlMgSi)	PBT GF
Contact Holder Material	PBT GF		
Contact Material/Surface Finish	CuZn, silver-plated, must be ordered separately 6-pin: RSC 162 Ag, RSCB 162 Ag, 11-pin: RSC 162/1 Ag, RSCB 162/1 Ag		
Mechanical Data			
Degree of Protection [IEC 60529]	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	6-pin + PE: 250 V AC/DC, 11-pin + PE: 50 V AC/60 V DC		250 V AC/DC
Rated Current	6-pin + PE: 10 A, 11-pin + PE: 5 A		10 A
Accessories			
Scope of Delivery or Accessories (incl.)	1 male connector, unmounted in plastic bag, with assembly instructions	1 male connector, unmounted in plastic bag, with assembly instructions	1 male connector with knurled screw, unmounted in plastic bag, with assembly instructions
Accessories to be Ordered Separately	Protective cap SHK 4, Order No. 734582001, contacts RSC 162	N6R...: NC6 encoding, Order No. 831002011, contacts RSC 162 N11R...: contacts RSC 162/1	N6R...: NC6 encoding, Order No. 831002011, contacts RSC 162
Technical Drawing			
			




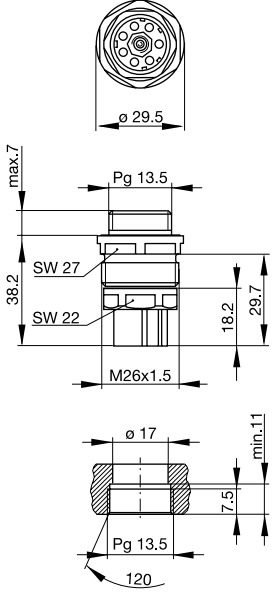
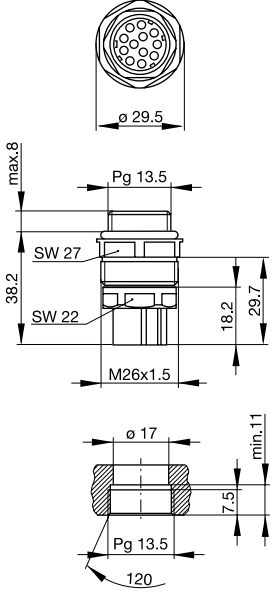
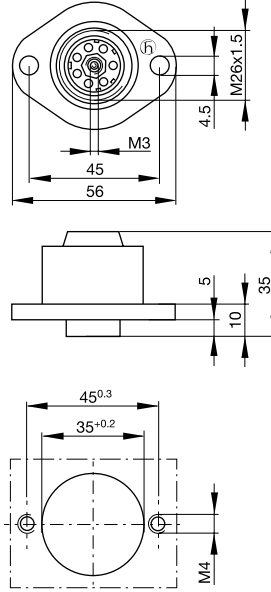
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
932273106	N6R DM	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 
932629106	N11R DM	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG11)	 
931776001	N6R EM	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 
932631106	N11R EM	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG11)	 
931727106	N6R FM R	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 








Conversion table mm² to AWG on page 20.

Circular Connectors NR Series

Technical Information

















Product Description			
Order Designation	N6R AF	N11R AF 5	N6R BFE
			
Description	Female appliance connector with metal screw-on housing, contact type sprung socket, crimp contacts, 6-pin + PE	Female appliance connector with threaded metal insert in housing (metal segment), contact type sprung sockets crimp contacts, 11-pin + PE	Female appliance connector with flange, contact type sprung sockets, crimp contacts, 6-pin + PE
(Construction Type) Standard	DIN EN 175201-804, AF design		DIN EN 175201-804, BF design
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing Material/Grip	Screw-on housing: zinc die casting, nickel-plated PBT GF (thread: PBT GF)	PBT GF, metal segment: CuZn, nickel-plated (thread: PBT GF)	PBT GF
Contact Holder Material	PBT GF		
Contact Material/Surface Finish	CuZn, silver-plated, must be ordered separately 6-pin + PE: RSC 162 Ag, RSCB 162 Ag, 11-pin + PE: RSC 162/1 Ag, RSCB 162/1 Ag		
Mechanical Data			
Degree of Protection [IEC 60529]	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	250 V AC/DC	50 V AC/60 V DC	250 V AC/DC
Rated Current	10 A	5 A	10 A
Accessories			
Scope of Delivery or Accessories (incl.)	1 female receptacle connector, unmounted in plastic bag, with assembly instructions	1 female receptacle connector, unmounted in plastic bag, with assembly instructions	1 female receptacle connector, unmounted in plastic bag, with assembly instructions
Accessories to be Ordered Separately	N6R...: NC6 encoding, Order No. 831002011, contacts RBC 162	N11R...: contacts RBC 162/1	N6R...: NC6 encoding, Order No. 831002011, contacts RBC 162
Technical Drawing			
			

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
931855001	N6R AF	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG13.5)	  
932625106	N11R AF 5	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG13.5)	 
931730106	N6R BFE	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (Flansch)	 

Conversion table mm² to AWG on page 20.




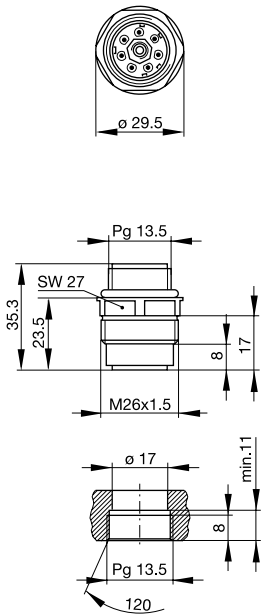
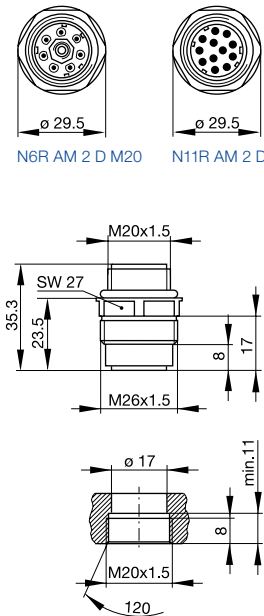
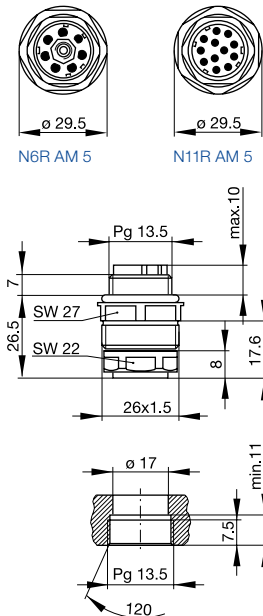
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
931434001	N6R AM	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG13.5)	  
932626106	N11R AM	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG13.5)	  
931592001	N6R AM 2	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG13.5)	 
931592002	N6R AM 3	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG11)	 
931592003	N6R AM 4	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG16)	 
931592004	N6R AM 2 M20	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (M20 x 1.5)	 
934337106	N11R AM 2 M20	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (M20 x 1.5)	 











Conversion table mm² to AWG on page 20.

Circular Connectors NR Series

Technical Information

Product Description			
Order Designation	N6R AM 2 D	NxR AM 2 D M20	NxR AM 5
			
Description	Male appliance connector with fixed contacts in housing (monoblock design), pins mounted watertight, pin contact, 6-pin + PE	Male appliance connector with threaded metal insert in housing (monoblock design), pins mounted watertight, contact type pin, 6 and 11-pin + PE	Male receptacle connector with threaded metal insert in housing (metal segment), contact type pin, 6 and 11-pin + PE
(Construction Type) Standard	DIN EN 175201-804 type A		
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing Material/Grip	PA 66		PBT GF, metal segment: CuZn, nickel-plated (thread: PBT GF)
Contact Holder Material	PA 66		PBT GF
Contact Material/Surface Finish	CuZn, silver-plated		CuZn, silver-plated, must be ordered separately 6-pin + PE: RSC 162 Ag, RSCB 162 Ag 11-pin + PE: RSC 162/1 Ag, RSCB 162/1 Ag
Mechanical Data			
Degree of Protection [IEC 60529]	IP65, IP67 (only when mated with Hirschmann/Lumberg counterparts)		IP65 (only when mated with Hirschmann/Lumberg counterparts)
Electrical Data			
Contact Resistance	≤ 10 mΩ		
Operating Voltage	250 V AC/DC	6-pin + PE: 250 V AC/DC, 11-pin + PE: 50 V AC/60 V DC	
Rated Current	10 A	6-pin + PE: 10 A, 11-pin + PE: 5 A	
Accessories			
Scope of Delivery or Accessories (incl.)	1 male receptacle connector with seal ring in plastic bag, with assembly instructions	1 male receptacle connector with seal ring in plastic bag, with assembly instructions	1 male receptacle connector, unmounted in plastic bag, with assembly instructions
Accessories to be Ordered Separately	N6R...: NC6 encoding, Order No. 831002011 Protective cap SHK 4, Order No. 734582001	N6R...: NC6 encoding, Order No. 831002011 Protective cap SHK 4, Order No. 734582001 N11R...: Protective cap SHK 4, Order No. 734582001	N6R...: NC6 encoding, Order No. 831002011, Protective cap SHK 4, Order No. 734582001 contacts RSC 162 N11R...: Protective cap SHK 4, Order No. 734582001 contacts RSC 162/1
Technical Drawing			
			




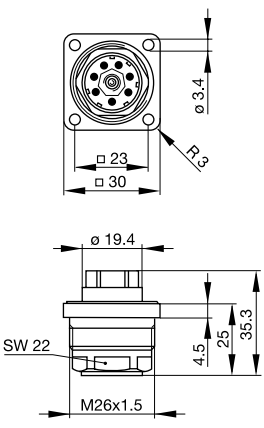
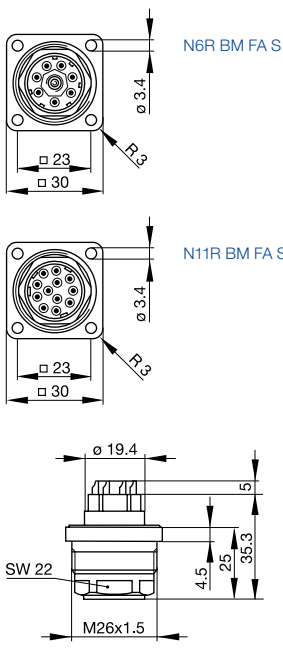
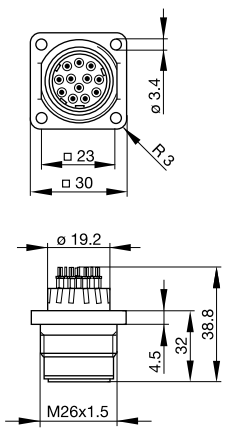
Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
932207206	N6R AM 2 D	6 + PE	solder, hollow contacts	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG13.5)	 
932207406	N6R AM 2 D M20	6 + PE	solder, hollow contacts	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (M20 x 1.5)	 
934338106	N11R AM 2 D M20	11 + PE	solder, hollow contacts	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (M20 x 1.5)	 
931773001	N6R AM 5	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (PG13.5)	 
932627106	N11R AM 5	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (PG13.5)	 
















Conversion table mm² to AWG on page 20.

Circular Connectors NR Series

Technical Information

Product Description			
Order Designation	NxR BM FA	NxR BM FA S	N11R BM FA F
			
Description	Panel mounted male appliance connector with plastic flange housing, square flange, crimp pin contacts, 6 and 11-pin + PE	Panel mounted male appliance connector with metal flange housing, square flange, hollow solder contacts, 6 and 11-pin + PE	Panel mounted male appliance connector with plastic or metal flange housing, square flange, line filter 11x 1 nF, solid solder pin contacts, 11-pin + PE
(Construction Type) Standard	DIN EN 175201-804, LM design		
Technical Data			
Ambient Temperature	-40 °C to +90 °C		
Housing Material/Grip	PA 6-GF (thread: PBT GF)	Flange housing: zinc die casting, nickel-plated PBT GF (thread: PBT GF)	Plastic version: PA 66 GF Metal version: zinc die casting, nickel-plated
Contact Holder Material	PBT GF		PA 66 GF
Contact Material/Surface Finish	CuZn, silver-plated, must be ordered separately 6-pin + PE: RSC 162 Ag, RSCB 162 Ag, 11-pin + PE: RSC 162/1 Ag, RSCB 162/1 Ag	CuZn, silver-plated	
Mechanical Data			
Degree of Protection [IEC 60529]	IP65 (only when mated with Hirschmann/Lumberg counterparts)		
Electrical Data			
Contact Resistance	≤ 10 mΩ		≤ 5 mΩ
Operating Voltage	6-pin + PE: 250 V AC/DC, 11-pin + PE: 50 V AC/60 V DC	6-pin + PE: 25 V AC/50 V DC, 11-pin + PE: 25 V AC/50 V DC	25 V AC/50 V DC
Rated Current	6-pin + PE: 10 A, 11-pin + PE: 5 A		5 A
Accessories			
Scope of Delivery or Accessories (incl.)	1 surface mounted male connector with flat seal, unmounted in plastic bag, with assembly instructions	1 surface mounted male connector, unmounted in plastic bag, with assembly instructions	50 surface mounted male connectors on styrofoam pallet
Accessories to be Ordered Separately	N6R...: NC6 encoding, Order No. 831002011, Protective cap SHK 4, Order No. 734582001 contacts RSC 162 N11R...: Protective cap SHK 4, Order No. 734582001 contacts RSC 162/1	N6R...: NC6 encoding, Order No. 831002011, Flat seal N6R-40, Order No. 734633001 Protective cap SHK 4, Order No. 734582001 N11R...: Flat seal N6R-40, Order No. 734633001 Protective cap SHK 4, Order No. 734582001	Flat seal N6R-40, Order No. 734633001 Protective cap SHK 4, Order No. 734582001
Technical Drawing			
			

Order Information

Order No.	Order Designation	No. of Pins	Terminal Type	Conductor Size	Cable Gland	Characteristics
932437206	N6R BM FA	6 + PE	crimping	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (Flange)	 
932628206	N11R BM FA	11 + PE	crimping	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (Flange)	 
933710001	N6R BM FA S	6 + PE	solder, hollow contacts	max. 1.5 mm ²	Ø 0.5 to 1.5 mm (Flange)	  
933699001	N11R BM FA S	11 + PE	solder, hollow contacts	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (Flange)	  
933100100	N11R BM FA F plastic	11 + PE	solder, solid pins	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (Flange)	 
934392001	N11R BM FA F metal	11 + PE	solder, solid pins	max. 0.5 mm ²	Ø 0.14 to 0.5 mm (Flange)	  

Conversion table mm² to AWG on page 20.



Accessories



Be certain. Belden.

Extras for the Perfect Connection

Extra convenience, functionality and safety make your connection solution a complete package. Connectivity accessories from Lumberg Automation and Hirschmann offer practical solutions, are perfectly tailored to each individual product series, and eliminate tedious self-assembly work. There are many reasons why there is just one optimal choice for our connectors – our high-quality accessories for the following product groups:

- AS-Interface
- PROFIBUS
- CANopen®/DeviceNet™
- Industrial Ethernet
- M8 circular connectors
- M12 circular connectors





- 7/8" circular connectors
- M23 circular connectors
- GDM series rectangular connectors
- ST series rectangular connectors
- CA series circular connectors
- CM series circular connectors
- NR series circular connectors
- Crimping technology

Benefits




- The right accessories from one supplier
- High flexibility thanks to a large selection
- Perfectly tailored for the individual product series

AS-Interface

Technical Information

0911 ANC 407/...M			
	Description	Order Designation	Order No.
	AS-Interface cap for direct contact with one pre-assembled male connector, reusable access as per IEC 60352-6 AS-Interface cable clamp 0911 ANC 406 is included in the scope of delivery.	0911 ANC 407/2 M	10931
		0911 ANC 407/5 M	10932
		0911 ANC 407/10 M	12822
0911 ANC 410/...M			
	Description	Order Designation	Order No.
	AS-Interface cap for direct contact with two pre-assembled male connectors, reusable piercing viper contacts as per IEC 60352-6 AS-Interface cable clamp 0911 ANC 406 is included in the scope of delivery.	0911 ANC 410/0.3 M	11160
		0911 ANC 410/0.6 M	15944
		0911 ANC 410/1 M	11161
		0911 ANC 410/2 M	15946
		0911 ANC 410/5 M	15945
		0911 ANC 410/10 M	15932
		0911 ANC 410/15 M	934637408
0911 ANC 408 0911 ANC 406			
	Description	Order Designation	Order No.
	AS-Interface cable connector with M12 interface, can be used as a splitter or connector, reusable piercing viper contacts as per IEC 60352-6 AS-Interface cable clamp 0911 ANC 406 is included in the scope of delivery with 0911 ANC 408.	0911 ANC 408	10933
		0911 ANC 406	10930
0911 ANC 413 0911 ANC 415			
	Description	Order Designation	Order No.
	AS-Interface cable connector with M12 interface, can be used as a splitter or connector, reusable access as per IEC 68 and DIN 41611, stainless steel hexagonal nut, 4-pin AS-Interface cable clamp 0911 ANC 415 is included in the scope of delivery with 0911 ANC 413. Especially suitable for use in food processing equipment.	0911 ANC 413	56013
		0911 ANC 415	65580

Technical Information

0913 ATL 003			
	Description	Order Designation	Order No.
	Addressing device for addressing AS-Interface sensors, actuators, and circular cable modules. Mechanical contact via M12 connector. AS-Interface flat cable modules are connected to the addressing device via addressing adapter 0913 ATL 002/0.35 M.	0913 ATL 003	28251
0913 ATL 002/0.35 M			
	Description	Order Designation	Order No.
	Addressing adapter for addressing AS-Interface flat cable modules with manual addressing devices, length 0.35 m Suitable for addressing device 0913 ATL 003.	0913 ATL 002/0.35 M	10938
0911 ANC 409			
	Description	Order Designation	Order No.
	Terminating seal for flat cables, items supplied in one package: 10	0911 ANC 409	2240

PROFIBUS

Technical Information

0903 UTL 101			
	Description	Order Designation	Order No.
	Addressing device for PROFIBUS standard series modules, addressing via M12 I/O connection (channel 8) of the modules	0903 UTL 101	10891
0973 PTL 201			
	Description	Order Designation	Order No.
	Addressing tool for PROFIBUS standard series modules, addressing via M23 bus connection of the modules	0973 PTL 201	11013
0973 PTL 202			
	Description	Order Designation	Order No.
	Addressing adapter for PROFIBUS standard series modules, M23 connection for the D-sub module, connection for serial interface	0973 PTL 202	2300
0979 PTX 101			
	Description	Order Designation	Order No.
	PROFIBUS terminating resistor, M12 male connector, 4-pin, B-coding	0979 PTX 101	11024
0979 PTX 201			
	Description	Order Designation	Order No.
	PROFIBUS terminating resistor for 12-pin M23 bus connection	0979 PTX 201	6907

CANopen®/DeviceNet™

Technical Information






0939 CTX 101			
	Description	Order Designation	Order No.
	CAN/DeviceNet™ terminating resistor, M12 male connector, 5-pin	0939 CTX 101	10984
0939 CTX 102			
	Description	Order Designation	Order No.
	CAN/DeviceNet™ terminating resistor, M12 female connector, 5-pin	0939 CTX 102	10985
0939 CTX 301			
	Description	Order Designation	Order No.
	CAN/DeviceNet™ terminating resistor, 7/8" male connector, 5-pin	0939 CTX 301	10986
0939 CTX 302			
	Description	Order Designation	Order No.
	CAN/DeviceNet™ terminating resistor, 7/8" female connector, 5-pin	0939 CTX 302	10987

M8 Circular Connectors as per IEC 61076-2-104**Technical Information**




ZVKM			
	Description	Order Designation	Order No.
	Miniature protective cap for unused M8 ports	ZVKM	7116
RSKF 8			
	Description	Order Designation	Order No.
	Mounting nut for M8 male and female receptacle connectors, thread: M8 x 0.5	RSKF 8	11644
ZKS 2			
	Description	Order Designation	Order No.
	Mounting clip for M8 connectors	ZKS 2	74051
DMWKZ			
	Description	Order Designation	Order No.
	Torque screwdriver for M8 and M12 connectors, attachment for screwing M12 connectors included	DMWKZ	62068
DMEWKZ 8			
	Description	Order Designation	Order No.
	Attachment for DMWKZ for screwing M8 connectors	DMEWKZ 8	62069

M12 Circular Connectors as per IEC 61076-2-101

Technical Information




ZVK			
	Description	Order Designation	Order No.
	Protective cap for unused M12 coupling housing	ZVK	12291
PZVK			
	Description	Order Designation	Order No.
	PVC protective cap for unused M12 coupling housing Especially suitable for use in food processing equipment.	PZVK	46005
0909 UAC 101			
	Description	Order Designation	Order No.
	Dust cover for unused M12 male connector	0909 UAC 101	10901
RSKF 9 RSKFM 16 RSKFM 20			
	Description	Order Designation	Order No.
	Mounting nut for M12 male and female receptacle connectors Thread sizes: RSKF 9: PG9 RSKFM 16: M16 x 1.5 RSKFM 20: M20 x 1.5	RSKF 9 RSKFM 16 RSKFM 20	11645 25049 25048
ZKS 1			
	Description	Order Designation	Order No.
	Mounting clip for M12 connectors	ZKS 1	74050

M12 Circular Connectors as per IEC 61076-2-101**Technical Information**




STS-Clip			
	Description	Order Designation	Order No.
	Retention clip for overmolded connectors to electrical equipment Suitable for use in areas with flammable dust as per EN 50281-1-1.	STS-Clip	54643
DMWKZ			
	Description	Order Designation	Order No.
	Torque screwdriver for M8 and M12 connectors, attachment for screwing M12 connectors	DMWKZ	62068
DMEWKZ K 12			
	Description	Order Designation	Order No.
	Attachment for DMWKZ for screwing field attachable M12 connectors	DMEWKZ K 12	62072

7/8" Circular Connectors

Technical Information






RKV			
	Description	Order Designation	Order No.
	Protective cap for unused 7/8" female connectors	RKV	11428
RSV			
	Description	Order Designation	Order No.
	Protective cap for unused 7/8" male connector housing	RSV	12104
RSKF 11 RSKF 13.5			
	Description	Order Designation	Order No.
	Mounting nut for 7/8" male and female receptacle connectors	RSKF 11	11642
	Thread sizes: RSKF 11: PG11 RSKF 13.5: PG13.5	RSKF 13.5	11643

M23 Circular Connectors**Technical Information**

ZMS 19			
	Description	Order Designation	Order No.
	Spanner for 12 and 19-pin M23 male and female connectors	ZMS 19	7059
0906 UAC 201			
	Description	Order Designation	Order No.
	Seal ring for M23 connectors, universal use for cables with Ø 2.5 to 10.5 mm	0906 UAC 201	7659
ZVK 2			
	Description	Order Designation	Order No.
	Protective cap for unused M23 module connectors	ZVK 2	2166





GDM Series Rectangular Connectors and Cordsets GDM Series Type A

Technical Information





GDME LED 24 GB YE			
	Description	Order Designation	Order No.
	<p>Electronic insert with LED rectifier with protection circuit (varistor) and function indicator (LED), yellow LED indicator</p> <p>Operating voltage: 24 V AC/DC Rated current: 8 A</p>	GDME LED 24 GB YE	831870001
GDME LED 24 HH YE			
	Description	Order Designation	Order No.
	<p>Electronic insert with function indicator (LED) with protection circuit (recovery diode), yellow LED indicator</p> <p>Operating voltage: 24 V AC/DC Rated current: 8 A</p>	GDME LED 24 HH YE	831873001
GDME LED 24 YE			
	Description	Order Designation	Order No.
	<p>Electronic insert with function indicator (LED) with protective diode for LED, yellow LED</p> <p>Operating voltage: 24 V AC/DC Rated current: 8 A</p>	GDME LED 24 YE	831863001
GDME LED 24 RD			
	Description	Order Designation	Order No.
	<p>Electronic insert with function indicator (LED) with protective diode for LED, red LED</p> <p>Operating voltage: 24 V AC/DC Rated current: 8 A</p>	GDME LED 24 RD	831839001
GDME HDL 24 GB YE			
	Description	Order Designation	Order No.
	<p>Electronic insert with LED rectifier with function indicator (LED), yellow LED</p> <p>Electronic insert can be rotated 90° in order to indicate signal status of contact 2 or 3.</p> <p>Operating voltage: 24 V AC/DC Rated current: 8 A</p>	GDME HDL 24 GB YE	831852001

Rectangular Connectors and Cordsets, GDM Series Type A

Technical Information







GDME HDL 24 YE			
	Description	Order Designation	Order No.
	<p>Electronic insert with function indicator (LED) and protective diode for LED, yellow LED</p> <p>Electronic insert can be rotated 90° in order to indicate signal status of contact 2 or 3.</p> <p>Operating voltage: 24 V AC/DC Rated current: 8 A</p>	GDME HDL 24 YE	832028001
GDME LG 120			
	Description	Order Designation	Order No.
	<p>Electronic insert with function indicator (negative-glow lamp)</p> <p>Operating voltage: 120 V AC/DC Rated current: 8 A</p>	GDME LG 120	831826001
GDME GB1 LG 230			
	Description	Order Designation	Order No.
	<p>Electronic insert with bridge rectifier with protection circuit (varistor) and function indicator (negative-glow lamp)</p> <p>Operating voltage: 250 V AC/DC Rated current: 2 A (SEV 1011: 1.5 A) AC/1 A DC</p>	GDME GB1 LG 230	831834001
GDME GB1			
	Description	Order Designation	Order No.
	<p>Electronic insert with bridge rectifier and protection circuit (varistor)</p> <p>Operating voltage: 250 V AC/DC Rated current: 2 A (SEV 1011: 1.5 A) AC/1 A DC</p>	GDME GB1	831832001

Technical Information

GDME 2 LED 24			
	Description	Order Designation	Order No.
	<p>Electronic insert with function indicator (2 LEDs), yellow LED/green LED, especially suitable for pressure switches (indicator P1 to P3)</p> <p>Operating voltage: 24 V AC/DC Rated current: 8 A</p>	GDME 2 LED 24	831876001
GDME LG 230			
	Description	Order Designation	Order No.
	<p>Electronic insert with function indicator (negative-glow lamp)</p> <p>Operating voltage: 250 V AC/DC Rated current: 8 A</p>	GDME LG 230	831824001
GDME UV 1			
	Description	Order Designation	Order No.
	<p>Electronic insert with unpopulated printed circuit board with 2 fork springs and 2 clamping blocks</p> <p>Rated current: 10 A</p>	GDME UV 1	931415000
GDME UV 3 N			
	Description	Order Designation	Order No.
	<p>Electronic insert with unpopulated printed circuit board with 2 fork springs and 2 flat-head clamps</p> <p>Rated current: 10 A</p>	GDME UV 3 N	931954001

Rectangular Connectors GDM Series

Technical Information







RMC 480 RMCB 480			
	Description	Order Designation	Order No.
	Crimping flat contact (blade), suitable for GSC series connectors, cable cross-section: 0.5 to 1.5 mm ² (B crimping) RMC 480: Pack size 100 RMCB 480: 3000 items on a reel	RMC 480	731470021
		RMCB 480	731468001
XZC 0702			
	Description	Order Designation	Order No.
	Crimping tool for GDM and G series contacts, color: red Cable cross-section for contact: RMC 280, 0.5 to 1 mm ² , profile I, Order No. 731 991-021 RMC 480, 0.5 to 1.5 mm ² , profile II, Order No. 731 470-021	XZC 0702	932507003
GDM 3-7 NBR pale brown GDM 3-17 VMQ red GDM 3-21 EPDM			
	Description	Order Designation	Order No.
	Flat gasket for GDM series rectangular connectors (type A) NBR: -30 °C to +90 °C VMQ (silicone): -40 °C to +125 °C EPDM (LABS -free): -40 °C to +125 °C Pack size: 50	GDM 3-7 NBR pale brown	730801002
		GDM 3-17 MPQ red	731740002
		GDM 3-21 EPDM brown	731739004
GDM 3-16 NBR black GDM 3-19 VMQ coral red			
	Description	Order Designation	Order No.
	Profile gasket for GDM series rectangular connectors (type A) NBR: -30 °C to +90 °C VMQ (silicone): -40 °C to +125 °C Pack size: 50	GDM 3-16 NBR black	731531002
		GDM 3-19 VMQ coral red	731532002
GSE 2000-2 NBR pale brown GSE 2000-3 EPDM			
	Description	Order Designation	Order No.
	Flat gasket for appliance connector GSE... (type A) NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C Pack size: 50	GSE 2000-2 NBR pale brown	733973002
		GSE 2000-3 EPDM	733846003
GSAZ 35/43 NBR black GSAZ 40/62 NBR black GSAZ 60/120 NBR black			
	Description	Order Designation	Order No.
	Cylinder profile gasket for appliance male connector GSAZ - 35 to 43 mm diameter - 40 to 62 mm diameter - 60 to 120 mm diameter (type A) NBR: -30 °C to +90 °C Pack size: 50	GSAZ 35/43 NBR black	733262002
		GSAZ 40/62 NBR black	733264002
		GSAZ 60/120 NBR black	733266002

Technical Information

SHK 03			
	Description	Order Designation	Order No.
	Protective cap for surface mounted male connectors as per DIN EN 175 301-803-A Pack size: 50	SHK 03	733790002
MESAP 43650			
	Description	Order Designation	Order No.
	Measuring adapter for measuring with 4 mm test leads for connectors and couplings as per DIN EN 175 301-803-A (e.g., Hirschmann GDM series), including short-circuit bridge	MESAP 43650	932818002
GDM 3011-7 GDM 3011 RF-1 GDME 3 N-7			
	Description	Order Designation	Order No.
	GDM 3011-7: central screw M3 x 35 with knurled head for GDM.../GM... series	GDM 3011-7	732488002
	GDM 3011 RF-1: stainless steel central screw M3 x 35 with Phillips combination head for GDM.../GM... series	GDM 3011 RF-1	734363001
	GDME 3 N-7: central screw M3 x 40 with knurled head for GDME... series	GDME 3 N-7	732280001
	Pack size: 50		
GMN 209-3 NBR pale brown GMN 209-12 EPDM			
	Description	Order Designation	Order No.
	Flat seal for GMN... cable socket (type B)	GMN 209-3 NBR pale brown	733273002
	NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C	GMN 209-12 EPDM brown	733271004
	Pack size: 50		
GM 207-3 NBR pale brown GM 207-7 EPDM			
	Description	Order Designation	Order No.
	Flat seal for GM... cable socket (type B)	GM 207-3 NBR pale brown	731423002
	NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C	GM 207-7 EPDM brown	731755004
	Pack size: 50		
GSA 20-3 NBR pale brown GSA 20-9 EPDM			
	Description	Order Designation	Order No.
	Flat seal for surface mounted male connector GSA 20 (type B)	GSA 20-3 NBR pale brown	731490002
	NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C	GSA 20-9 EPDM brown	734033003
	Pack size: 50		




Rectangular Connectors GDM Series

Technical Information

GSN 20-3 NBR pale brown GSN 20-6 EPDM			
	Description	Order Designation	Order No.
	Flat gasket for appliance male connector GSN 20 (type B) NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C Pack size: 50	GSN 20-3 NBR pale brown	733275002
		GSN 20-6 EPDM brown	733270004
GDSN 307-4 NBR pale brown GDSN 307-5 EPDM			
	Description	Order Designation	Order No.
	Flat gasket for cable connector GDSN... cable socket (type C) NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C Pack size: 50	GDSN 307-4 NBR pale brown	730176002
		GDSN 307-5 EPDM brown	730310003
GDS 307-2 NBR pale brown GDS 307-4 EPDM			
	Description	Order Designation	Order No.
	Flat gasket for cable connector GDS... cable socket (type C) NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C Pack size: 50	GDS 307-2 NBR pale brown	730185002
		GDS 307-4 EPDM brown	730314003
GSSA 300-5 NBR pale brown GSSA 300-6 EPDM			
	Description	Order Designation	Order No.
	Flat gasket for GSSA... (type C) NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C Pack size: 50	GSSA 300-5 NBR pale brown	730233002
		GSSA 300-6 EPDM brown	730312003
GSSNA 300-5 NBR pale brown GSSNA 300-6 EPDM			
	Description	Order Designation	Order No.
	Flat seal for GSSNA... (type C) NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C Pack size: 50	GSSNA 300-5 NBR pale brown	730232002
		GSSNA 300-6 EPDM	730365004
GSA 200-4 NBR pale brown GSA 200-7 EPDM			
	Description	Order Designation	Order No.
	Flat gasket for appliance connector GSA... (type A) NBR: -30 °C to +90 °C EPDM (silicone-free): -40 °C to +125 °C Pack size: 50	GSA 200-4 NBR pale brown	730843002
		GSA 200-7 EPDM brown	730268003




Rectangular Connectors G Series

Technical Information

G 30 E-1 black			
	Description	Order Designation	Order No.
	Flat gasket for panel mounted connectors with flange, suitable for G 30 E 3 F, material thickness: 2 mm	G 30 E-1 black	732135002
G 30 E-2 black			
	Description	Order Designation	Order No.
	Flat gasket for panel mounted connectors with flange, material thickness: 0.8 mm Suitable for: G 30 E 3 M, G 4 E 1 M, G 4 A 5 M, G 4 A 1 M	G 30 E-2 black	733415002
RMC 280			
	Description	Order Designation	Order No.
	Crimping flat contact (blade contact), suitable for G series connectors, cable cross-section: 0.5 to 1.5 mm ² (B crimping) Number of items: 100 individual contacts	RMC 280	731991021

Rectangular Connectors ST Series

Technical Information

STASI 2			
	Description	Order Designation	Order No.
	Safety bracket for 2-pin + PE versions	STASI 2	732044000
STASI 3			
	Description	Order Designation	Order No.
	Safety bracket for 3-pin + PE and 5-pin + PE versions	STASI 3	732045001
STASI 4			
	Description	Order Designation	Order No.
	Safety bracket for 4-pin + PE versions	STASI 4	733449001

Circular Connectors CA Series

Technical Information

CA 00 SD 1			
	Description	Order Designation	Order No.
	Protective cap for male connectors with fixing strap, 3-pin + PE and 6-pin + PE	CA 00 SD 1	831530400
CA 00 SD 2			
	Description	Order Designation	Order No.
	Protective cap for male receptacle connectors with fixing strap, 3-pin + PE and 6-pin + PE	CA 00 SD 2	831529100
CA 00 SD 3			
	Description	Order Designation	Order No.
	Protective cap for female connectors with fixing strap, 3-pin + PE and 6-pin + PE	CA 00 SD 3	831532400
CA 00 SD 4			
	Description	Order Designation	Order No.
	Protective cap for female connectors with fixing strap, 3-pin + PE and 6-pin + PE	CA 00 SD 4	831531100

Circular Connectors CM Series

Technical Information

CM 02 D 14S			
	Description	Order Designation	Order No.
	Flat gasket, NBR (nitrile rubber), for appliance male connector CM 02 * 14S...	CM 02 D 14S	733321002
CM 02 D 20			
	Description	Order Designation	Order No.
	Flat gasket, NBR (nitrile rubber), for appliance male connector CM 02 * 20...	CM 02 D 20	733818002
CM 02 SD 14S			
	Description	Order Designation	Order No.
	Protective cap for appliance male connector CM 02 * 14S..., 3, 4, 5, 6-pin, and 6-pin + PE	CM 02 SD 14S	831620100
CM 02 SD 20			
	Description	Order Designation	Order No.
	Protective cap for appliance male connector CM 02 * 20..., 7, 8, 14, 17-pin	CM 02 SD 20	831766100
CM 06 SD 14S			
	Description	Order Designation	Order No.
	Protective cap for female connector (CM 06 EA 14S...), 3, 4, 5, 6-pin, and 6-pin + PE	CM 06 SD 14S	831621100
CM 06 SD 20			
	Description	Order Designation	Order No.
	Protective cap for female connector (CM 06 EA 20...), 7, 8, 14, 17-pin	CM 06 SD 20	831767100






Circular Connectors NR Series

Technical Information

N6R-40			
	Description	Order Designation	Order No.
	Conductive flat gasket, for surface mounted male connectors with metal flange	N6R-40	734633001
N6R-42			
	Description	Order Designation	Order No.
	EMC PG cable gland for cable diameters 12 to 15 mm, suitable for N6R EF S and N11R EF S	N6R-42	734606001
N6R-41			
	Description	Order Designation	Order No.
	EMC PG cable gland for cable diameters 6 to 12 mm, suitable for N6R EF S and N11R EF S	N6R-41	734605001
NC 6			
	Description	Order Designation	Order No.
	Coding, complete, suitable for N6R...	NC 6	831002011
SHK 4			
	Description	Order Designation	Order No.
	Protective cover for transport of male panel mount connectors, suitable for NxR BM	SHK 4	734582001
N6R 3 LED 24			
	Description	Order Designation	Order No.
	LED insert with 3 LEDs (green, red, yellow) to indicate operating states Pin 1: green Pin 3: red Pin 6: yellow	N6R 3 LED 24	831411001
N6R 3 LED 24 DB			
	Description	Order Designation	Order No.
	LED insert with 3 LEDs (green, yellow, red) to indicate operating states Pin 1: green Pin 3: yellow Pin 6: red	N6R 3 LED 24 DB	831618001

Labels and Labeling Pen

Technical Information

ZBS			
	Description	Order Designation	Order No.
	<p>Labels, 7 x 14 mm, 10 pieces</p> <p>Can be used for all passive ASB modules (M12) and all active compact bus modules.</p>	ZBS 7/10	12285
ZBR 5/10			
	Description	Order Designation	Order No.
	<p>Labels in frame, 5 x 10 mm, 40 pieces</p> <p>Can be used for all ASB modules (M8).</p>	ZBR 5/10	71326
ZBR 8/40			
	Description	Order Designation	Order No.
	<p>Labels in frame, 8 x 17 mm, 40 pieces</p> <p>Can be used for all passive ASB modules (M12) and all active compact bus modules.</p>	ZBR 8/40	7801
ZBR 9/40			
	Description	Order Designation	Order No.
	<p>Labels in frame, 9 x 20 mm, 40 pieces</p> <p>Can be used for all compact bus modules, active, AS-Interface 0911... and valve connectors.</p>	ZBR 9/40	7799
ZBST			
	Description	Order Designation	Order No.
	<p>Labeling pen, India ink recommendation for plotters: INK 2000 and Clean 2000</p>	ZBST	7800




Retention Clip and Stripping Tool

Technical Information

STS-Clip			
	Description	Order Designation	Order No.
	Retention clip for overmolded connectors to electrical equipment Suitable for use in areas with flammable dust as per EN 50281-1-1.	STS-Clip	54643
AWKZ 3/4			
	Description	Order Designation	Order No.
	Stripping tool for 3 and 4-core cables Especially suitable for stripping 224 and 225 cable.	AWKZ 3/4	61905
AWKZ 5			
	Description	Order Designation	Order No.
	Stripping tool for 5-core cables Especially suitable for stripping 228 cable.	AWKZ 5	61907
AWKZ 12/19			
	Description	Order Designation	Order No.
	Cable stripping knife for quick stripping of all established types of circular cable from 4 to 15 mm Ø, automatic switch from circular cut to lengthwise cut using twisting internal blade	AWKZ 12/19	61906
E 2 LED PNP			
	Description	Order Designation	Order No.
	LED (approx. 10 mA), surface mounted, suitable for contact indication as per IEC 61076-2-101/IEC 60947-5-2, PNP wiring/positive make contact, LED indicator green 0 power, yellow = switching status	E 2 LED PNP	933405001

Crimping Technology: Crimp Contacts

Technical Information



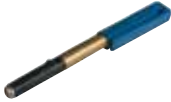
RBC 162/1 Ag			
	Description	Order Designation	Order No.
	<p>Crimp contact (female), B0-crimping, cable cross-section 0.14 to 0.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable crimping tool: XZC 0701 crimping tool Suitable extrusion tool: XWA 164</p> <p>Pack size: 100 individual contacts</p>	RBC 162/1 Ag	733383021
RBCB 162/1 Ag			
	Description	Order Designation	Order No.
	<p>Crimp contact (female), B0-crimping, cable cross-section 0.14 to 0.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable extraction tool: XWA 164</p> <p>Pack size: 2000 contacts on a reel, unwinds in clockwise direction</p>	RBCB 162/1 Ag	733385001
RBC 162 Ag			
	Description	Order Designation	Order No.
	<p>Rolled crimp contact (female), B0-crimping, cable cross-section 0.5 to 1.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable crimping tool: XZC 0701 crimping tool Suitable extraction tool: XWA 164</p> <p>Pack size: 100 individual contacts</p>	RBC 162 Ag	731724221
RBCB 162 Ag			
	Description	Order Designation	Order No.
	<p>Rolled crimp contact (female), B0-crimping, cable cross-section 0.5 to 1.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable extraction tool: XWA 164</p> <p>Pack size: 200 contacts on a reel, unwinds in counterclockwise direction</p>	RBCB 162 Ag	731726202
RBCB 162 Ag			
	Description	Order Designation	Order No.
	<p>Rolled crimp contact (female), B0-crimping, cable cross-section 0.5 to 1.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable extraction tool: XWA 164</p> <p>Pack size: 200 contacts on a reel, unwinds in counterclockwise direction</p>	RBCB 162 Ag	731726201
RSC 162/1 Ag			
	Description	Order Designation	Order No.
	<p>Rolled crimp contact (male), B0-crimping, cable cross-section 0.14 to 0.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable crimping tool: XZC 0701 crimping tool Suitable extraction tool: XWA 164</p> <p>Pack size: 100 individual contacts</p>	RSC 162/1 Ag	733384021

Technical Information

RSC 162 Ag			
	Description	Order Designation	Order No.
	<p>Rolled crimp contact (male), BO-crimping, cable cross-section 0.5 to 1.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable crimping tool: XZC 0701 crimping tool Suitable extraction tool: XWA 164</p> <p>Pack size: 100 individual contacts</p>	RSC 162 Ag	731725021
RSCB 162 Ag			
	Description	Order Designation	Order No.
	<p>Rolled crimp contact (male), BO-crimping, cable cross-section 0.5 to 1.5 mm²</p> <p>Suitable for NR series, ST series (5-pin)</p> <p>Suitable extraction tool: XWA 164</p> <p>Pack size: 2000 contacts on a reel, unwinds in clockwise direction</p>	RSCB 162 Ag	731727001
RMC 280			
	Description	Order Designation	Order No.
	<p>Crimp contact (blade), BO-crimping, cable cross-section 0.5 to 1 mm²</p> <p>Suitable for G series</p> <p>Suitable crimping tool (pliers): XZC 0702, Order No. 932507003</p> <p>Pack size: 100 individual contacts</p>	RMC 280	731991021
RMC 480			
	Description	Order Designation	Order No.
	<p>Crimp flat contact (blade), B crimping, cable cross-section 0.5 to 1.5 mm²</p> <p>Suitable for GDM series, GSC series</p> <p>Suitable crimping tool (pliers): XZC 0702, Order No. 932507003</p> <p>Pack size: 100 individual contacts</p>	RMC 480	731470021
RMCB 480			
	Description	Order Designation	Order No.
	<p>Crimp flat contact (blade), B crimping, cable cross-section 0.5 to 1.5 mm²</p> <p>Suitable for GSC series</p> <p>Suitable crimping tool (pliers): XZC 0702, Order No. 932507003</p> <p>Pack size: 2000 contacts on a reel, unwinds in clockwise direction</p>	RMCB 480	731468001

Crimping Technology: Tool

Technical Information

XZC 0701			
	Description	Order Designation	Order No.
	Crimping tool for NR and ST series contacts, color: blue	XZC 0701	932507002
	Cable cross-section for contact: RBC 162/1, 0.14 to 0.25 mm ² , profile I; RSC 162/1, 0.14 to 0.25 mm ² , profile I; RBC 162, 0.5 to 1.5 mm ² , profile II; RSC 162, 0.5 to 1.5 mm ² , profile II; RBC 162/1, 0.32 to 0.5 mm ² , profile III		
XZC 0702			
	Description	Order Designation	Order No.
	Crimping tool for GDM and G series contacts, color: red	XZC 0702	932507003
	Cable cross-section for contact: RMC 280, 0.5 to 1 mm ² , profile I, Order No. 731991021 RMC 480, 0.5 to 1.5 mm ² , profile II, Order No. 731470021		
XWA 164			
	Description	Order Designation	Order No.
	Extraction tool for crimp contacts 1.6 mm (cross-section) for NR series and ST series (5-pin)	XWA 164	931812001



Technical Information

Be certain. Belden.

We Know the Importance of Quality and are Dedicated to Maximizing the Capability of your Machines and Equipment

Compact design, optimum functionality and high reliability under demanding industrial conditions are a few of the outstanding features of the Lumberg Automation and Hirschmann connectivity portfolio.

In addition to the extensive product portfolio, an integrated Quality and Environmental Management System has ensured the maintenance and expansion of our products' and services' resulting in high quality standards for decades. Belden aims not only to ensure product and delivery quality for all products, but to continuously improve its processes.

Belden Deutschland GmbH has been certified to ISO 9001:2008 since 1993, and to ISO 14001:2004 since 2002.

The intent of the Technical Information section of this catalog is to provide additional technical information surrounding the following topics:

- IP Code in general
- Product-specific standards
- General testing standards
- Coding of M12 connectors
- Shielding for connectors and cables

IP Code in General

For safety, electrical equipment must be protected from any external interference. This is ensured by enclosures which protect the electrical equipment from contact with dangerous parts and prevent ingress of solid foreign objects, dust, humidity and water.

The German Standard DIN EN 60529, titled "Degrees of protection provided by enclosures (IP Code)" and the Standard DIN 40050-9 titled "Vehicles; IP Protection classes; protection against solid foreign objects, water and contact; Electrical equipment" are the basis for the definition and identification of the protection class for a product and provide additional information regarding such protection.

First index figure:
Protection class – protection against solid foreign objects penetrating the product

Example: IP67

IP	6	7
Ingress Protection	First index figure Protection against solid foreign objects	Second index figure Protection against water

International Protection Classes according to DIN EN 60529 (IEC 529/VDE 047 T1)




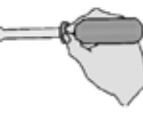

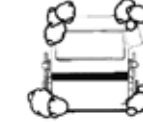
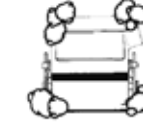
Index	Degree of Protection	Definition
0	 No protection against accidental contact, no protection against solid foreign bodies	–
1	 Protection against contact with any large area by hand and against solid foreign bodies with $\varnothing > 50$ mm	The sample object, a ball of 50 mm diameter, must not penetrate the enclosure completely
2	 Protection against contact with the fingers, protection against solid foreign bodies with $\varnothing > 12$ mm	The sample object, a ball of 12.5 mm diameter, must not penetrate the enclosure completely
3	 Protection against tools, wires or similar objects with $\varnothing > 2.5$ mm, protection against solid foreign bodies with $\varnothing > 2.5$ mm	The sample object, a ball of 2.5 mm diameter, must not penetrate the enclosure at all
4	 just like 3 except for the size difference of $\varnothing > 1$ mm	The sample object, a ball of 1.0 mm diameter, must not penetrate the enclosure at all
5	 Full protection against contact, protection against interior injurious dust deposits	Ingress of dust is not prevented completely but dust may only enter to such extent that the amount of dust does not interfere with normal operation or compromise safety
6	 Total protection against contact, protection against penetration of dust	Ingress of dust is prevented completely

Diagram in accordance with DIN VDE 470, DIN EN 60529, IEC 529
 Source: ZVEI – Zentralverband Elektrotechnik- und Elektroindustrie e.V.

**Second index figure:
Protection class – protection
against ingress of water with
adverse effects**

Example: IP67

IP	6	7
Ingress Protection	First index figure Protection against solid foreign objects	Second index figure Protection against water

International Protection Classes according to DIN EN 60529 (IEC 529/VDE 047 T1)

Index	Degree of Protection	Definition
0	No protection against water	–
1	Protection against vertical water drops	Vertically falling water drops must not have any adverse effects
2	Protection against water drops (up to a 15° angle)	Vertically falling water drops must not have any adverse effects when the enclosure is tilted up to 15° on either side of the vertical
3	Protection against diagonal water drops (up to a 60° angle)	Water, sprayed at an angle up to 60° on either side of the vertical, must not have any adverse effects
4	Protection against splashed water from all directions	Water, splashed against the enclosure from any direction, must not have any adverse effects
5	Protection against water (out of a nozzle) from all directions	Water, projected in jets against the enclosure from any direction, must not have any adverse effects
6	Protection against water penetration during temporary flooding	Water, projected in powerful jets against the enclosure from any direction, must not have any adverse effects
7	Protection against temporary submersion in water	Water may only enter to such extent that the amount of water entering the enclosure does not cause any adverse effects when the enclosure is temporarily immersed in water; standardized pressure and time conditions apply
8	Protection against permanent submersion in water	Water may not ingress to such extent that it causes any adverse effects when the enclosure is continuously immersed in water, under conditions that have been agreed upon by the manufacturer and the user; the conditions must be more difficult than the conditions described under digit 7
9K	Protected against water from high-pressure/steam jet cleaners	Water, directed against the enclosure from any direction under extremely high pressure, must not have any adverse effects

Product Specific Standards

The following standards are used for the design and testing our products:

IEC 61131-2

Programmable logic controllers – part 2: Equipment requirements and tests

This standard contains the general definitions of the supply voltage and I/O interfaces of active components. This standard also serves as the basis of the test specification.

IEC 61076-2-101, IEC 61076-2-104 and IEC 61076-2-109

Connectors for electronic equipment

Part 2-101: Circular connectors – Design specification for screw locking M12 connectors for low voltage applications

Part 2-104: Circular connectors – Design specifications for screw locking or snap locking M8 connectors for low voltage applications

Part 2-109: Circular connectors – Design specifications for screw-locking M12 x 1 circular connectors for data transmissions with frequencies up to 500 MHz

Part 2-111: Design specification for screw locking M12 connectors for power supply.

Part 2-113: Design specification for screw locking M12 connectors for combined data transmission and power supply.

These standards specify the mechanical design guidelines for M12 and M8 connectors. These standards also serve as the basis of the test specification.

DIN EN 175301-803

Design specification: Rectangular connectors – 0.8 mm thick flat contacts – Captive locking screws

This standard specifies the mechanical design guidelines for valve connectors. This standard also serves as the basis of the test specification.

DIN EN 175201-804

Design specification: Circular connectors – 1.6 mm thick circular contacts – Locking screws

This standard specifies the mechanical design guidelines for NR series connectors. This standard also serves as the basis of the test specification. The construction, terminal, and materials of the NR series comply with this standard.

IEC 60664-1

Coordination of the insulation of electrical equipment in low voltage systems – part 1: Basics, requirements and tests

This standard replaced DIN VDE 0110-1, which stays valid until the end of the transitional period in May 2006. This standard defines the measurement of the air gaps and creepage distances depending on the area of use, the material and the pollution degree.

General Test Standards

IEC 61984

Connectors – Safety requirements and tests

This standard replaced DIN VDE 0627, which was valid until the end of the transitional period in October 2004. In addition to the product specific standards for connectors, this standard is used for further mechanical design requirements and for individual tests.

IEC 60512

Connectors for electronic equipment – Measurements and test methods

This series of standards serves to define the test conditions for plug in connectors. The test program includes: climate/mechanical tests, test description of the design features of connectors such as max. current and isolation resistance.

IEC 60068

Environmental tests

In this series of standards the possible environment impacts are defined. The test programme includes, climatic influences such as dry heat, coldness, moist heat and temperature cycles as well as mechanical influences such as vibration and shock. With these tests, the influences from the operational environment must be checked in the Laboratory.

IEC 60529

Protection class due to housing (IP code)

In this standard the IP code is defined. The test setup and the test conditions necessary to comply with the IP coding are prescribed.

DIN EN 50155, DIN EN 45545-2, DIN EN 50467 and DIN EN 61373

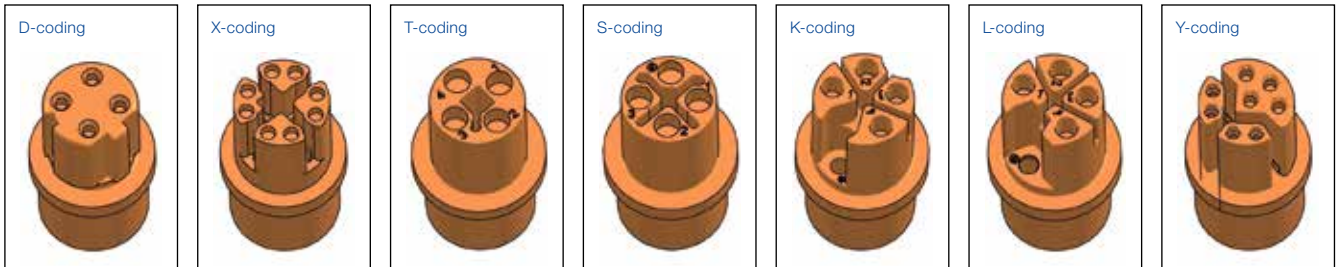
Railway applications - Electronic equipment used on rolling stock, fire protection on railway vehicles, rolling stock electrical connectors (requirements and test methods) and rolling stock equipment (shock and vibration tests)

Europe's strict DIN EN requirements for running trains are specially geared towards ensuring the reliability of the transport system and the safety of passengers. Consequently, all connection cables and connectors must be especially resistant to flammability and vibrations.

Coding of M12 Connectors

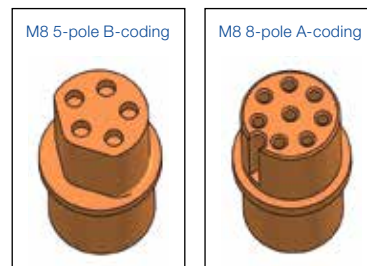
The coding of M12 connectors with pins or slots on the contact holder prevents otherwise identical connectors from being plugged in to the wrong place.

A difference is drawn between the standard coding A, the B-coding (reverse key) for Fieldbus applications such as Profibus, the C-coding (double key, also known as U-coding) and the D- or X-coding for Ethernet applications.



Coding of M8 Connectors

Standardized according to DIN EN 61076-2-104 the B-coding (5-pole) and A-coding (8-pole) enable proper orientation of these connectors during the mating/attachment process in various applications like sensors, actuators, electronic drives etc. This also ensures that sensitive parts of the connectors, such as the pins are protected from being harmed by mechanical stress when plugged in with a proper counterpart. This also prevents plugging in non-proper counterparts.



Shielding

A shield is an electrically conductive protective jacket surrounding a transmission medium. Cables are usually shielded with a copper braid or with aluminum foil. It reduces electromagnetic interference to the cores carrying the signal as well as reducing emissions from the core to the environment. This increases the electromagnetic compatibility (EMC).

For applications where EMC is critical, the use of shielded connectors and cables is recommended. Both the susceptibility of connectors and cables to external radiation as well as emissions into the environment are effectively suppressed by shielded connectors.

Shielded connectors and cables are particularly necessary for the transmission of analog signals as well as for data with high transmission rates.





Part Number Index

Be certain. Belden.

Many More Standard Products for Your Applications

Lumberg automation remains committed to offering the industry's most comprehensive line of industrial connectivity products for a variety of industrial machine and automated system applications. This index represents our comprehensive offering with extended cable lengths, special connector LED circuitry and much more.

If you cannot find the product you desire, please contact us – we welcome customers that have unique requirements and are always developing customized solutions.

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EUROPE/MIDDLE EAST/AFRICA

Germany
 Phone: +49-2355-50-44-000
icos-sales@belden.com

Russia
 Phone: +7-495-787-06-55
info@belden.ru

The Netherlands
 Phone: +31-773-878-555
venlo.salesinfo@belden.com

France
 Phone: +33-472-109-990
lyon.salesinfo@belden.com

Spain
 Phone: +34-91-746-17-30
madrid.salesinfo@belden.com

United Arab Emirates
 Phone: +971-4-391-0490
dubai.salesinfo@belden.com

Italy
 Phone: +39-039-5965-250
info.milano@belden.com

Sweden
 Phone: +46-40-699-88-60
icos-sales@belden.com

United Kingdom
 Phone: +44-161-498-3754
manchester.salesinfo@belden.com

AMERICAS

USA
 Phone: +1-717-217-2200
info.lumberg@belden.com

ASIA/PACIFIC

China
 Phone: +86-21-5445-2388
China.Marketing@belden.com

Singapur
 Phone: +65-6879-9800
sales.roap@belden.com

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