Catalog | December 2024

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

www.se.com

Life Is On Schneider Electric

Modicon

Discover Modicon

Edge control for industrial internet of things (IoT)

Modicon IIoT-native edge controllers manage complex interfaces across assets and devices or directly into the cloud, with embedded functional safety and cybersecurity. **Modicon** provides performance and scalability for a wide range of industrial applications up to high-performance multi-axis machines and high-available redundant processes.

Explore our offer

- Modicon HVAC Controllers
- Modicon PLC
- Modicon Motion Controllers
- Modicon PAC
- Modicon Edge I/O
- Modicon I/O
- Modicon Networking
- Modicon Power Supply
- Modicon Wiring
- Modicon Safety

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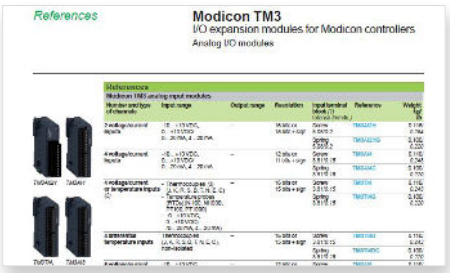
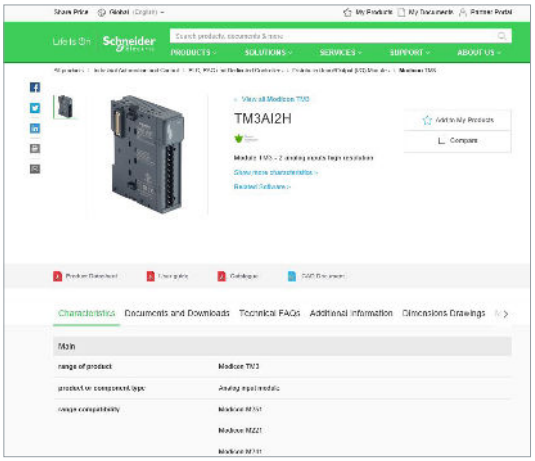
Quick access to product information

Get technical information about your product



Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual



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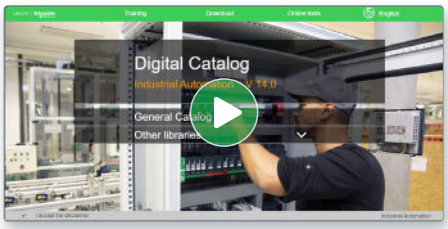
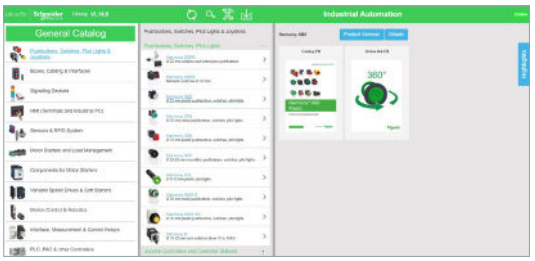


> With just 3 clicks, you can access the Industrial Automation and Control catalogs, in both English and French
> Consult digital automation catalogs at Digi-Cat Online



- Up-to-date catalogs
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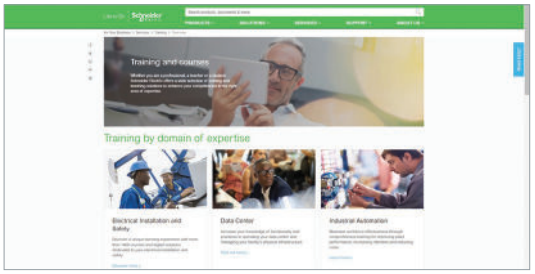

Life Is On Schneider Electric

General content

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

EcoStruxure™
Innovation At Every Level

Schneider Electric's IoT-enabled, plug-and-play, open, secure, interoperable architecture and platform, in Industries, Infrastructures, Data Centers, and Buildings.

Innovation at every level

EcoStruxure is based on a three-tiered technology stack delivering innovation at every level, from connected products to edge control and apps, analytics, and services.

Together with our hybrid segments approach, this enhances your value around safety, reliability, operational efficiency, sustainability, and connectivity across 6 domains of expertise:

- Power
- IT
- Building
- Machine
- Plant
- Grid

Dedicated architectures and IoT

We tailor our solutions in the form of dedicated reference architectures for plants:

- Management systems
- Power systems
- Data center systems
- Industrial plant and machine systems
- Smart grid systems

The Industrial Internet of Things (IIoT) gives an additional boost to technologies. That's why we provide our customers with an IoT-enabled architecture and platform offering simple, reliable, productive, and cost-efficient solutions.

Cybersecurity solutions

Robust cybersecurity protection is a must, and Schneider Electric's solutions can deliver it, regardless of business type or industry.

The vendor-agnostic services provided by our skilled professionals help to protect your entire critical infrastructure. We help to assess your risk, implement cyber-specific solutions, and maintain your onsite defenses over time, while integrating appropriate IT policies and requirements.

This is our difference and your advantage.

Enhanced safety

With the release of M580 Safety, Schneider Electric further expands the EcoStruxure platform.

This consolidates our position as one of the most trusted industrial safety vendor, with thousands of Modicon and Triconex safety systems protecting the most critical industrial processes globally.

EcoStruxure™ Innovation At Every Level **for Industry**

*The Schneider Electric industrial software business and AVEVA have merged to trade as AVEVA Group plc, a UK listed company.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

I/O systems for Logic, Motion and PAC controllers

I/O systems for Machine and PAC controllers	**Type**	I/O expansion modules	The future-ready I/O system for data aggregation	Common platform of modules for Modicon M580 and Modicon M340 PACs
	Range	Modicon TM3	Modicon Edge I/O NTS	Modicon X80 I/Os
				
Consult the catalog		DIA3ED2140109EN	DIA3ED2240601EN	DIA6ED2131203EN
Certifications and standards (Depending on the model)	International certifications	> CE, UKCA, RCM, EAC, cULus, cULus Haz. Loc. > EN/IEC 61131-2, CSA C22.2 No 142, ANSI/ISA 12-12-01, CSA C22.2 No 213, IEC/EN 61010-2-201	> CE, UKCA, cULus, RCM, EAC (Pending) > Industry Market Zone B, Light Industry (Pending) > Power generation market (Pending)	> CE, UL, CSA, RCM, EAC, UKCA > Power generation market: IEC 61000-6-5, IEC 61850-3
	> Safety standards > Safety level	> EN/IEC 60947-1, EN/IEC 60947-5-1 (TÜV with Functionnal safety modules) > Up to PL e/Category 4 conforming to EN/ISO 13849-1, and SIL CL3 conforming to EN/IEC 62061	> Hazardous Location Class I Division 2 Groups ABCD and for ATEX/UKEX/IECEx zone 2/22 (Pending)	> Hazardous Location Class I Division 2 Groups ABCD and for ATEX/UKEX/IECEx zone 2/22 > SIL3 standards according to IEC 61508
	Marine certification	> EU RO Mutual Recognition	> EU RO Mutual Recognition (Pending)	> Merchant navy: IACS E10 and agencies: ABS, BV, DNV, GL, LR, RINA, RMRS, and CCS
	Railway certification	–	> Railway Rolling stock, Railway Stationary (Pending)	–
Line Power supply		> External 24 VDC (Power supplied by the controller via the bus expansion connector)	> Embeded power distribution module: 24 VDC	> Embeded power supply module: 24 VDC isolated, or 24...48 V dc isolated, or 100...150 VDC, or 100...240 VAC
Island configuration		With bus expansion modules (transmitter and receiver) and bus expansion cable	Up to 32 modules per cluster, up to 250 modules per island *(1)*	With bus expansion modules (transmitter and receiver), backplane, and bus expansion cable
Performance		Up to 7x modules managed in 2 ms, 14x modules maximum	Up to 32 modules in one cluster managed in 1 ms	Up to 7 expansion racks maximum, depending on the CPU performance level
Networks	EtherNet/IP	Yes	Yes	Yes
	CANopen bus	Yes	–	Yes
	Modbus Serial line	Yes	–	–
	Modbus TCP	Yes	Yes	Yes
	Sercos III bus	–	*(1)*	–
Communication modules	AS-interface Master	–	–	Yes
	Profibus DP bus	–	–	Yes
	I/O-Link Master	–	*(2)*	–
	Modbus TCP	–	–	Yes
	OPC UA	–	Explicit only	Yes
	Fiber converter	–	–	–
I/O extension capacity	Discrete I/O	Yes	Yes	Yes
	Analog I/O	Yes	Yes	Yes
	Expert I/O	> TeSys motor starter > High speed counting	> Encoder *(1)* > CAM *(1)* > Encoder generator *(1)* > Fast I/Os *(1)* > Pulse outputs *(1)*	> Counting > Time-stamping > SSI encoder > Frequency input > Weighing
	Safety I/O	> Functional safety I/O modules for control of Emergency stop, Switches, Pressure-sensitive mats and edges, Solid-state output safety light curtains, and Pressure sensors with PNP+PNP or PNP+NPN outputs	> Safety I/O *(2)* > Safety Redundant power supply *(2)*	> Safety I/O > Safety Redundant power supply
	Counting I/O	–	> High-speed counter (250 kHz), with reflex output	> Incremental encoders (10 kHzand 60 kHz)
Services		> Cybersecurity > Web Server	> Cybersecurity > Web Server > Integrated protection and diagnostics	> Cybersecurity > Web Server
Mounting		On a symmetrical DIN rail ⊥rand on plate or panel with dedicated accessory	On DIN rail directly (Top hat type TH35-7.5 rail IEC 60715, Top hat type TH35-15 rail IEC 60715)	On rack with backplane (Rack can be mounted on a panel or a plate)
I/O Connecting		By removable screw terminal blocks and spring terminal blocks, and Removable HE10 conn. (MIL20)	By removable screw terminal blocks and spring terminal blocks	By removable screw terminal blocks and spring terminal blocks
Hot swapping capability		–	Yes	Yes
Compatibilty with controllers	Logic controllers	■ Modicon M221/M221 Book ■ Modicon M241 ■ Modicon M251 ■ Modicon M262	■ Modicon M241 *(1)* ■ Modicon M251 *(1)* ■ Modicon M262	–
	Motion controllers	■ Modicon M262	■ Modicon M262 ■ PacDrive LMC Eco/Pro2 ■ Modicon M660 *(2)*	–
	Programmable Automation Controllers	–	■ Modicon M580 ■ Modicon M340	■ Modicon M580 ■ Modicon M340
Configuration tool			Modicon PLC Configurator *Select your architecture of controller and I/O by usage and application, Connectivity, services and IIOT (Protocols, WeB, and communication services), I/Os, and Power supply*	

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

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Industrial Automation controllers

Industrial Automation controllers	**Applications**	Controllers for industrial machines						Programmable Automation Controllers		
	Type	Logic controllers			Logic / Motion controllers	Motion controllers	Advanced iPC* Motion Controllers	Mid range PLC for industrial process and infrastructure	Ethernet Programmable Automation Controllers	
	Range	Modicon M221/M221 Book	Modicon M241	Modicon M251	Modicon M262	PacDrive LMC Eco, LMC Pro2	Modicon M660 *(2)*	Modicon M340	Modicon M580	
							 *industrial PC			
Consult the catalog		DIA3ED2140106EN	DIA3ED2140107EN	DIA3ED2140108EN	DIA3ED2180503EN	DIA7ED2160303EN	DIA3ED2241201EN	DIA6ED2110104EN	DIA6ED2151012EN	
Memory		640 KB RAM, 2 MB Flash	64 MB RAM, 128 MB Flash	64 MB RAM, 128 MB Flash	192 MB RAM, 256 MB Flash	128 KB to 256 KB NV RAM, 512 MB DDR2 to 1 GB DDR3L	Up to 8 GB RAM (depending on processor type)	1792 KB or 3584 KB internal RAM (depending on processor type)	64 MB RAM	
Supply voltage		24 VDC or 100...240 VAC	24 VDC or 100...240 VAC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC, 24...48 VDC, 125 VDC, 100...240 VDC, or 100...240 VAC		
Communication	Embedded communication fieldbus and networks	> EtherNet/IP Adapter > Modbus TCP > RS 232/RS 485 Serial Link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > CANopen (master) and SAE J1939 > Serial Link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > CANopen (master) and SAE J1939 > Serial Link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > Sercos III > Serial Link > Mini USB-B programming port	> EtherNet/IP > Sercos III > CANopen > Profibus > Profinet > EtherCAT	> PROFINET > EtherCAT > EtherNet/IP > OPC UA FX *(2)* > Sercos III	> EtherNet/IP > Modbus TCP > CANopen > Serial Link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > CANopen > Profibus DP > FactoryCast > DNP3 (RTU) > Global Data > Serial Link > AS-Interface > Mini USB-B programming port	
	OPC Unified Architecture (OPC UA)	–	Server	Server	Server / Client (encrypted)	Server / Client (encrypted)	Client	Client	Client	
	Cybersecurity	With external firewall	With external firewall	With external firewall	Embedded	With external firewall	Embedded	Embedded	Embedded	
	Optional communication fieldbus and networks	> 1 Serial Link	> Ethernet > Profibus DP	> Ethernet > Profibus DP	> Ethernet, EtherNet/IP Adapter > CANopen Master	> CANopen > Profibus DP > RT-Ethernet	> TSN Ethernet *(2)* > Sercos III > Ethernet/IP > PROFINET > Ethercat	> EtherNet > Modbus TCP > Serial Link > FactoryCast Modbus/TCP > RTU > AS-Interface	> EtherNet/IP and Modbus TCP > Factory cast > IP Forwarding > OPC UA > IEC 61850 > DNP3 / IEC 60870-5-101/104 > Global Data	
Embedded I/O (number and type)		> Up to 40 logic inputs > 2 analog inputs > Up to 16 relay outputs > Up to 16 transistor outputs	> Up to 24 logic inputs > Up to 16 transistor outputs > Up to 16 relay outputs > Up to 8 high speed inputs > Up to 4 high speed outputs	–	> 4 fast digital inputs > 4 fast digital outputs	> Up to 20 digital inputs > Up to 16 touch probe inputs > Up to 4 interrupt inputs > Up to 2 analog inputs > Up to 16 digital outputs > Up to 2 analog outputs	> 4 digital inputs	> Up to 1024 discrete I/O > Up to 256 analog I/O > Up to 36 application-specific channels (process counter, motion control and serial link, or RTU)	> Up to 6,144 discrete I/O > Up to 1,536 analog I/O > Up to 216 application-specific channels (process counter, motion control, and serial link or RTU)	
Embedded Safety / Severe environment		– / –	– / –	– / –	Yes / –	Yes / –	Yes / –	Yes /Yes	Yes /Yes	
Synchronized axes		–	–	–	Up to 24 synchronized axes	Up to 130 synchronized axes	> Up to 130 synchronized axes on Sercos III	–	–	
Dedicated configuration software		EcoStruxure Machine Expert - Basic	EcoStruxure Machine Expert				EcoStruxure Automation Expert - Motion Module *(2)*	EcoStruxure Control Expert		
Compatibility with I/O systems *(click on the range name to open the catalog)*	Local I/O	■ Modicon **TM3**	■ Modicon **TM3**	■ Modicon **TM3**	■ Modicon **TM3**	–	–	■ Modicon **X80**	■ Modicon **X80**	
	Remote I/O	■ Modicon **TM3**	■ Modicon **TM3**	■ Modicon **TM3**	■ Modicon **TM3**	–	–	■ Modicon **X80**	■ Modicon **X80**	
	Distributed I/O on Ethernet	■ Modicon **TM3**	■ Modicon **TM3** ■ Modicon **Edge I/O NTS** ■ Modicon **TM5**	■ Modicon **TM3** ■ Modicon **Edge I/O NTS** ■ Modicon **TM5**	■ Modicon **TM3** ■ Modicon **Edge I/O NTS** ■ Modicon **TM5**	■ Modicon **Edge I/O NTS** ■ Modicon **TM5**	■ Modicon **Edge I/O NTS**	■ Modicon **X80** ■ Modicon **Edge I/O NTS**	■ Modicon **X80** ■ Modicon **Edge I/O NTS**	
	on CANopen	–	■ Modicon **TM3**	■ Modicon **TM3**	■ Modicon **TM3** ■ Modicon **TM5** & **Modicon TM7**	■ Modicon **TM3** ■ Modicon **TM5** & Modicon **TM7**	–	■ Modicon **X80**	■ Modicon **X80**	
	on Sercos	–	–	–	■ Modicon **Edge I/O NTS** *(1)* ■ Modicon **TM5**	■ Modicon **Edge I/O NTS** *(1)* ■ Modicon **TM5**	■ Modicon **Edge I/O NTS**	–	–	
	on Modbus Serial Line	■ Modicon **TM3**	■ Modicon **TM3**	■ Modicon **TM3**	■ Modicon **TM3**	–	–	■ Modicon **X80**	■ Modicon **X80**	
	on Profibus	–	–	–	–	–	–	■ Modicon **X80**	■ Modicon **X80**	
	on AS-Interface maste	–	–	–	–	–	–	■ Modicon **X80**	■ Modicon **X80**	
	Safety I/O	■ Modicon **TM3** (functionnal safety)	■ Modicon **TM3** (functionnal safety)	■ Modicon **TM3** (functionnal safety)	■ Modicon TM3 (functionnal safety) ■ Modicon **Edge I/O NTS** *(1)* ■ Modicon **TM5** & **Modicon TM7**	■ Modicon **Edge I/O NTS** *(2)* ■ Modicon **TM5** & Modicon **TM7**	■ Modicon **Edge I/O NTS**	■ Modicon **X80**	■ Modicon **X80**	
Configuration tool			Modicon **PLC Configurator** *Select your architecture of controller and I/O by Usage and application, Connectivity, services and IIOT (Protocols, WeB, and communication services), I/Os, and Power supply*							

(1) Available soon. (2) Planned commercialization.

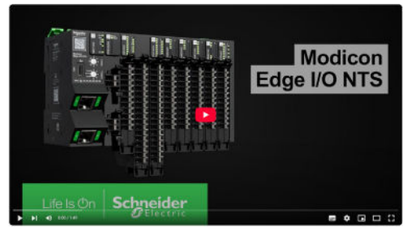
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

System components

- Modicon Edge I/O NTS is an I/O system designed to remain relevant and effective as technology and data requirements evolve over time.
  - This implies that the I/O (Input/Output) system can gather and consolidate data from various sources in a way that adapts to future advancements and changes in data technology.
  - This could involve scalability, flexibility, and compatibility with emerging data protocols and standards, ensuring that the system can continue to aggregate and process data effectively in the face of future developments.
  - Using open Ethernet protocols, Edge I/O NTS embeds the latest technologies to deliver the best performance, availability, and cybersecurity.

- Modicon Edge I/O NTS provides flexibility and allows you to answer from simple to highly demanding applications.
- The offer is delivered as a kit: a pre-assembly of a base (for mounting on DIN rail, power bus, and data transmission) associated with an electronic module (main function).
- It is composed of I/O modules, Bases, Terminal blocks, Mounting accessories, Labels, Shielding accessories, Spare parts, and Configuration software.
- The type of connection can be selected between spring or screw terminal blocks, equipped with or without articulated transparent plastic cover.
- The offer is available in Standard and Hardened versions
  - Standard version: -20 to +60°C *(-4 to +140°F)*
  - Hardened version provides extended operational temperature and conformal coating, allowing it to work in severe environments (up to GX): -40 to +70°C *(-40 to +158°F)*



Click to open video *(1:49)*

Modicon Edge I/O NTS is a future ready unified I/O solution tailored for data aggregation.
With its distributed IP20 design, it provides a diverse range of options to accommodate various applications within a single I/O family, ensuring adaptability and future readiness.

Typical Modicon Edge I/O NTS: Up to 32 modules per cluster, in addition to Network Interface Module, first Power supply and Termination.
Up to 250 modules per island (several clusters) *(2)*

Network Interface modules	Power Supply modules	Discrete IO modules	Analog I/O modules	Counting modules	Motion Expert modules *(2)*	Field Device Master modules	Passive modules	Accessories	Terminal blocks
■ Ensure the communication between controllers and Edge I/O NTS islands ■ Embeded webserver: Edge I/O NTS – Web interface ■ Explicit OPC UA server ■ Comissioning without PLC *(2)*	■ Distribute Bus power supply for internal comsumption of modules ■ Distribute Field power supply for internal consumption of modules and connected field devices ■ Provide protection and diagnostics ensuring modules operate reably and consistently *(2)* ■ Redundant *(2)* ■ Simplified wiring	■ Internal or external field power supply ■ Rich options for different electrical rating and wiring connection ■ With sensor or actuator power supply ■ Isolated channels ■ Protected ■ With diagnostics	■ Voltage ■ Current ■ Temperature (RTD, Thermistor or Thermocouple) ■ Strain gauge *(2)* ■ HART (Tolerance or Communication) *(1)* ■ Versatile modules (Current or Voltage configurable per channel) ■ With sensor or loop power supply ■ Isolated channels	■ High-speed counter Module up to 250 kHz ■ Integrated reflex ouput based on dedicated functions	■ Encoder ■ CAM ■ Encoder generator ■ Fast I/Os ■ Pulse train outputs	■ Seamlessly integrate the fieldbuses directly within the I/O islands (no need to add a gateway)	■ Provide flexibility and ease the wiring of modules with additional 0 VDC, 24 VDC or shielding connection *(2)* ■ Reserve space physically for future extension	■ Cluster termination ■ Mounting accessory ■ Vibration ■ Shielding ■ Labels	■ Spring Terminal blocks with or without cover ■ Screw Terminal blocks with or without cover
□ EtherNet/IP Adaptor □ Modbus TCP Server □ Sercos III *(2)*	□ 24 VDC □ Diagnostics *(2)*	□ Discrete inputs - 12/24 VDC - 24/48/120/230 VAC □ Discrete outputs - 24 VDC Transistor - 100 to 240 VAC Triac - Relay 5 to 125 VDC and 24 V to 240 VAC	□ Analog inputs - ±5V, 0/1...5V - -10/+10 VDC, 0/+10 VDC - 0-20 mA, 0/4-20 mA, ±20 mA □ Analog outputs - -10/+10 VDC, 0/+10 VDC - 0-20 mA, 0/4-20 mA □ Combo	□ High-speed counter 250 kHz, with reflex output □ Auxiliary inputs 24 VDC	□ RS-422 incremental encoder (1 MHz) □ SinCos (400 kHz) □ Hiperface (400 kHz) □ CAMswitch □ Pulse Output (400 kHz) □ Timestamped □ Oversampled	Exchanges data on □ IO-Link Master □ Serial RS-485 *(1)* □ Modbus RTU *(1)* □ ASCII *(1)*				
See page 54	See page 50	See page 18	See page 26	See page 38	See page 37	See page 42	See page 46	See page 59	See page 58

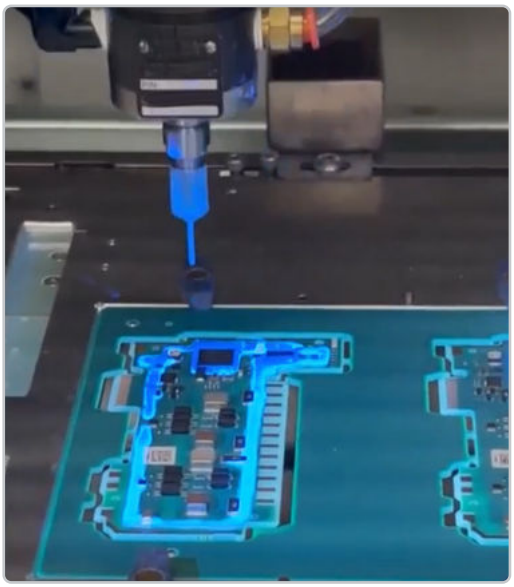
(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Robust

Performant



Conformal coating: Compliance is applied to each hardened functional module by depositing resin film on the electronic components and on the seal around the module.

Robust

Supporting Features

> Thermal tolerance
  - Standard version: -20 to +60°C *(-4 to +140°F)* operating temp
  - Hardened version: -40 to +70°C *(-40 to +158°F)* operating temp
> Hardened -40 to +70°C with conformal coating
> Wide range of certifications
  - CE, UKCA, cULus, RCM, EAC (Pending)
  - Industry Market Zone B, Light Industry (Pending)
  - Power generation market (Pending)
  - Hazardous Location (Pending): cULus Haz.Loc Class 1 Div.2, ATEX / IECEx (Zone 2/22), UKEX (UKCA Ex) (Zone 2), CCC Ex (zone 2) (Pending)
  - EU RO Mutual Recognition (Pending)
  - Railway Rolling stock, Railway Stationary (Pending)
> EMC tolerance: exceed Industrial standards resistance level (IEC 61000-6-2 and IEC 61000-6-4)
> Vibration tolerance: Up to 2 g (with accessory)
> Corrosive environment
  - Standard version: G1 (Mild environment), and G2 (Moderate environment)
  - Hardened version: G3 (Harsh environment) and GX (Severe environment)

Details

> Railway certification as evidence of robustness
> Choice between stand ard and Hardened version
> Less need for environmental conditioning (Air Cond, heaters etc. in panels)
> I/O layouts can match process geography (altitude)
> No need to use specific offer to reach high level robustness

Customer Benefits

> Less cost for environmental conditioning
> More freedom to place I/O closer to machine signals - reducing wiring costs
> Longer lifecycle

Performant

Supporting Features

> Synchronized internal bus
> Simple motion without motion CPU *(1)*
> Reflex output in some modules
> Up to 250 modules per island *(2)*
> 16 bits resolution analog

Details

> Precise control
> CAMswitch w/o Motion PLC *(1)*
> Very fast reaction time (up to 25 µs)
> High capacity remote I/O islands reduce wiring costs and system complexity
> High resolution analog value

Customer Benefits

> Increase Machine productivity - speed and throughput
> Reduce cost of small/simple motion machine
> More freedom to place the right I/O where it's needed

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Available

Convenient

Available

Supporting Features

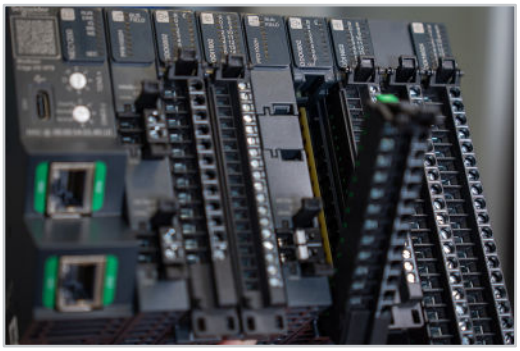
- Patented passive base reducing risk of faillure
- Hot swap
- Redundant power supply *(2)*
- Modules in default don't affect rest of the island
- Integrated protections and diagnostics
- RSTP ring network, accepting 1 network faillure

Details

- Designed for reliability - less downtime
- Reduced MTTF and MTTR/ time to make changes
- Robust and reliable communications
- Improve faillure detection, reduce time to start or re-start

Customer Benefits

- Less production lost to unplanned downtime
- Faster trouble shooting with less downtime



Convenient

Supporting Features

- Removable Terminal blocks
- 1-column arrangement of terminal pins (comfortable wiring)
- Numbering and easy identification of terminal pins
- Test probe hole
- Terminal block stay in place even unplugged
- Select Screw or Spring, with or without plastic cover
- Dummy module: reserve the need for future
- Coding keys: let the user manage for mitigating assembly or wiring mistakes

Details

- Terminal blocks can be removed allowing more tests and easier than unwiring
- Wires are easy to insert in right place and to be identified
- Voltage test still possible even with spring

Customer Benefits

- Save time during interventions
- Faster wiring
- Reduce risk during manipulation and test
- Ease wiring for people not knowing the offer
- Safer installation even when terminal blocks are unpluged

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Integrated

Modicon **PLC Configurator**
(Click to access the tool)

Integrated

Sofware level		Tools
EcoStruxure **Machine Expert** EcoStruxure **Automation Expert - Motion**	- Create the design of the Edge I/O islands - Configure the modules - Store and retrieve the configuration file - Online parameter adjustment: Commissioning and Diagnostics -	EcoStruxure **Architecture Builder** *(The cloud-based collaboration tool for optimized quotations)*
EcoStruxure **Control Expert / Process Expert** *(Classic and Topology Manager)*		Modicon **PLC Configurator** *(Create your architecture of controller and I/O by usage and application)*
EcoStruxure **Automation Expert**		EcoStruxure **Automation Device Manager** *(Firmware updates)*
		EcoStruxure **Cybersecurity Admin Expert** *(Cybersecurity rules)*
Edge I/O level		
Modicon **Edge I/O Configurator** *Modicon Edge I/O Configurator Software NTSCSW1000*		- Commissioning without PLC - Export EDS file for Third party use - Manage some Cybersecurity rules - Firmware update *(2)* -
Modicon **Edge I/O NTS – Web interface**		

Supporting Features

- Open to Future, Current, Legacy and Third party offers
- Integrated in Control Expert, Machine Expert, Automation Expert, Automation Device Manager, PLC Configurator, Architecture Builder
- Dedicated configurator mainly for Third party PLC also accessible from embedded webserver
- Integrated diagnostics accessible from application and from embedded webserver
- OPC UA Server (Explicit)

Details

- A single I/O system for all architectures and eco-systems
- Smooth journey from Design to Program versus Program from scratch
- Access to diagnostics - shorter downtime
- Get information in parralel of implicit communication

Customer Benefits

- Save time and money in design and build phase
- Potential remote dignostics service offer
- Free to build best in class machine control systems from best in class components

Software portfolio

Designation	Minimum version to use
EcoStruxure **Machine Expert**	V2.3
EcoStruxure **Control Expert**	V16.1
EcoStruxure **Automation Expert**	V24.1
EcoStruxure **Automation Device Manager**	V3.319
EcoStruxure **Cybersecurity Admin Expert**	V2.4.7

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Cybersecure

Flexible

Cybersecure

Supporting Features

- Secure by design
- Manufacturer certificate for each module
- Easy to integrate in IT cybersecurity infrastructure
- Ready for cybersecurity regulation evolution (as Cyber Resilience Act, NIS2.0,...)
- Compliances:
  - GDPR
  - SB327
  - IEC62443-4-1, IEC62443-4-2

Details

Embedded Trust Platform Module (TPM)

- Secure boot
- Signed firmware, secure update
- Device Genuineness
- Backbone bus with Authenticated communication
- Encrypted communications (Service)
- Simple Certificate Enrollment Protocol (SCEP)
- Centralized User Access Management (RBAC)
- Access Control list (ACL), embedded firewall
- Secure logs

Customer Benefits

- Enhanced product Cybersecurity increases overall machine cybersecurity
- Less risk of downtime from cyber-attack
- Increased security for remote diagnostics, machine monitoring, communications and other digital transformation activites

Flexible

Supporting Features

- 100+ Discrete/Analog/Specialist I/O modules *(1)*
- Compact + High end (more env. robust)
- Modbus TCP, EtherNet/IP, Sercos fieldbus network
- Spring or Screw terminal blocks, with or without cover
- Same offer for classic, Motion *(1)*, Safety *(2)*, and Hardened I/O
- Adapted compactness for function provided

Details

- A single I/O range for plant and machine systems
- Compact, cost-effective solution or High-end for more features, diagnostics and easier wiring
- Open IP protocols
- Choice of termination methods (spring or screw)
- Right balance between wire compacity and finger capacity to wire and manipulate for maintenance
- Commissioning without PLC

Customer Benefits

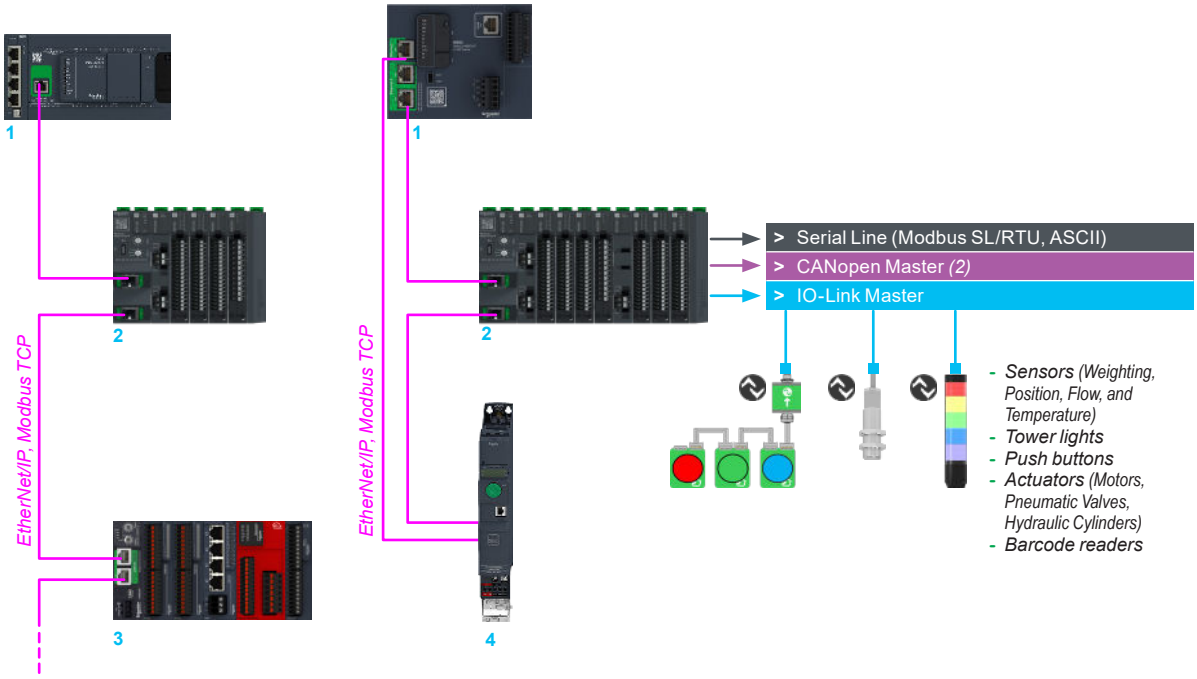
- Lower spare parts and supply chain costs
- Less staff training, increased effectiveness
- Enhanced network flexibility - the capability to select the most suitable network to fulfill overall requirements
- Choose modules and terminal blocks that suit your requirements instead of adjusting your needs
- Meet typical application needs with fewer product references
- Compact to reduce costs and maintenance usage.

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS
The future-ready I/O system for data aggregation
Machine architectures

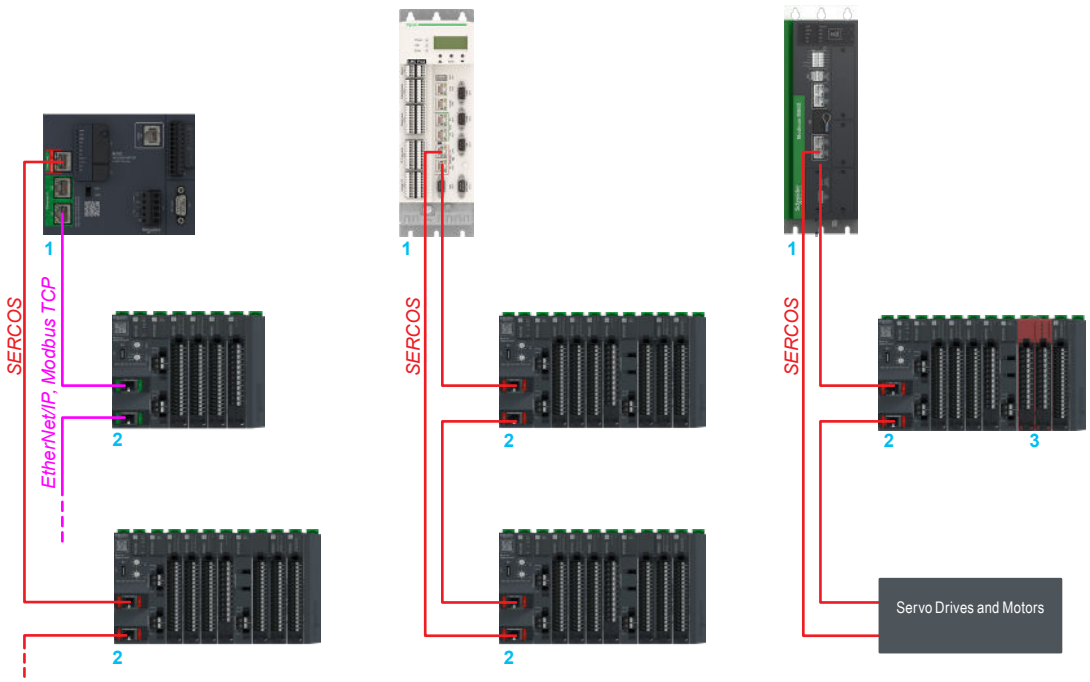
Machine architectures

Modbus TCP and EtherNet/IP



1 PLC (Modicon M241, Modicon M262, or Third party controller)
2 Modicon Edge I/O NTS: Cluster composed of a Network Interface module, and a Power Supply module, and, according to a modular configuration, Discrete modules, Analog modules, Counting modules, Motion Expert modules, Field device master modules, or Passive modules.
3 Modicon TM3
4 Altivar Machine ATV320 variable speed drive

Sercos *(2)*, Synchronized, Motion *(1)* and Safety *(2)*



1 Motion controller/ Modicon M262, PacDrive LMC, Modicon M660 *(2)*
2 Modicon Edge I/O NTS:Cluster composed of a Network Interface module, and a Power Supply module, and, according to a modular configuration, Discrete modules, Analog modules, Counting modules, Motion Expert modules, Field device master modules, or Passive modules.
3 Modicon Edge I/O NTS Integrated safety *(2)*

(1) Available soon. (2) Planned commercialization.

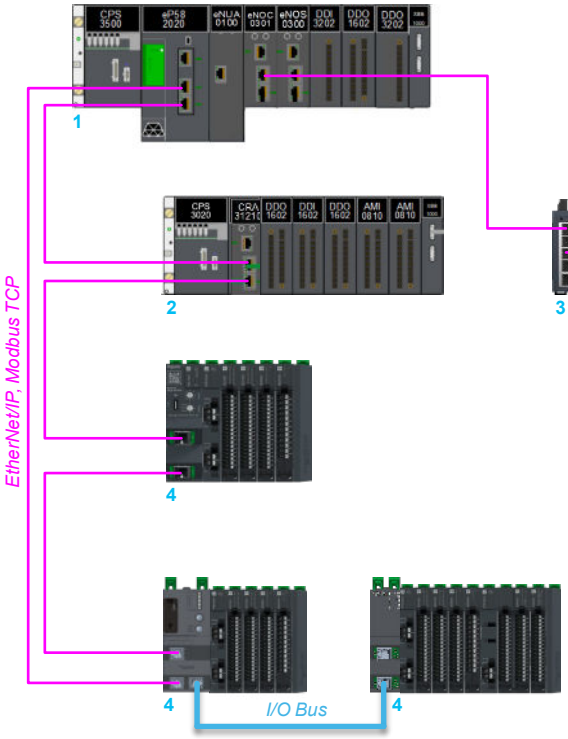
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Plant architectures

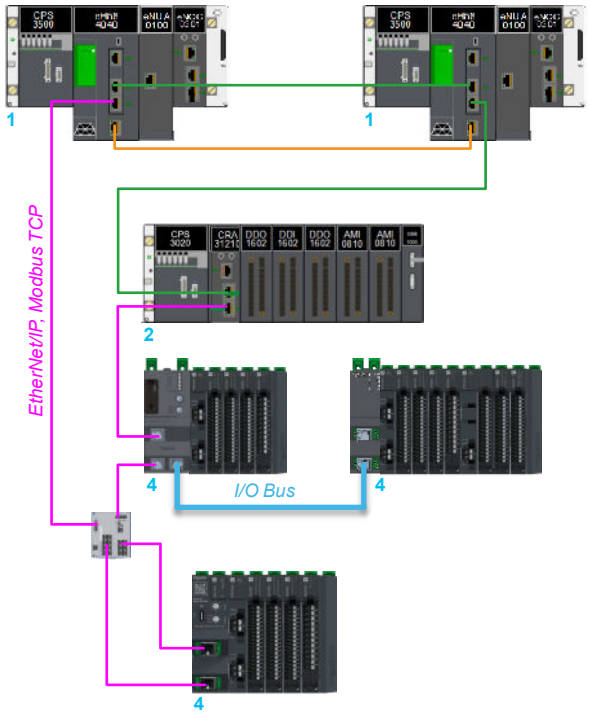
Plant architectures

Architecture with support of Modicon M580 (Remote IO, ring topology)



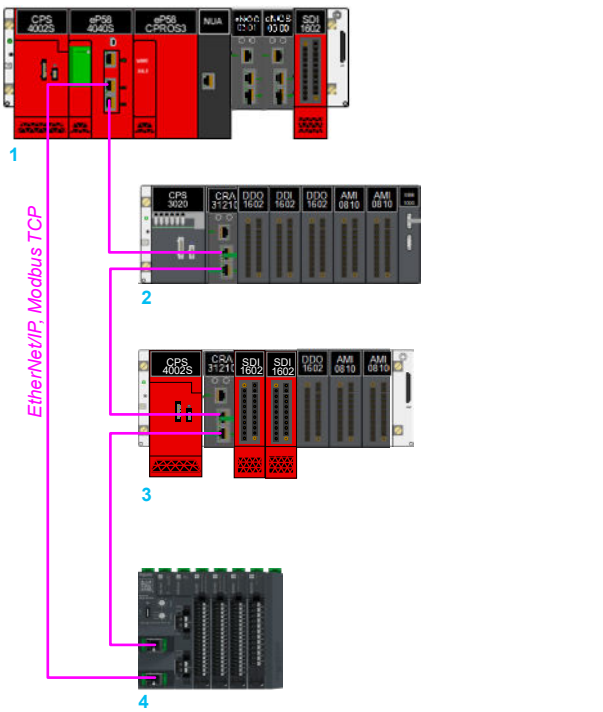
1 Modicon M580 ePAC (Consult catalog Ref. DIA6ED2151012EN)
2 Modicon X80 I/O drop (Consult catalog Ref. DIA6ED2131203EN)
3 Industrial Ethernet Switch (Consult catalog Ref. DIA6ED2140903EN)
4 Modicon Edge I/O NTS Cluster

Architecture with Modicon M580 Redundant ePAC *(2)*
(Bumpless CPU switchover)



1 Modicon M580 Redundant ePAC: Operates with hot-standby CPU (Consult catalog Ref. DIA6ED2151012EN)
2 Modicon X80 I/O drop (Consult catalog Ref. DIA6ED2131203EN)
3 Industrial Ethernet Switch (Consult catalog Ref. DIA6ED2140903EN)
4 Modicon Edge I/O NTS Cluster

Architecture with Safety Modicon M580 ePAC *(2)*



1 Modicon M580 Safety ePAC(Consult catalog Ref. DIA6ED2151012EN)
2 Modicon X80 I/O drop (Consult catalog Ref. DIA6ED2131203EN)
3 Modicon X80 Safety I/O (Consult catalog Ref. DIA6ED2131203EN)
4 Modicon Edge I/O NTS Cluster

(1) Available soon. (2) Planned commercialization.

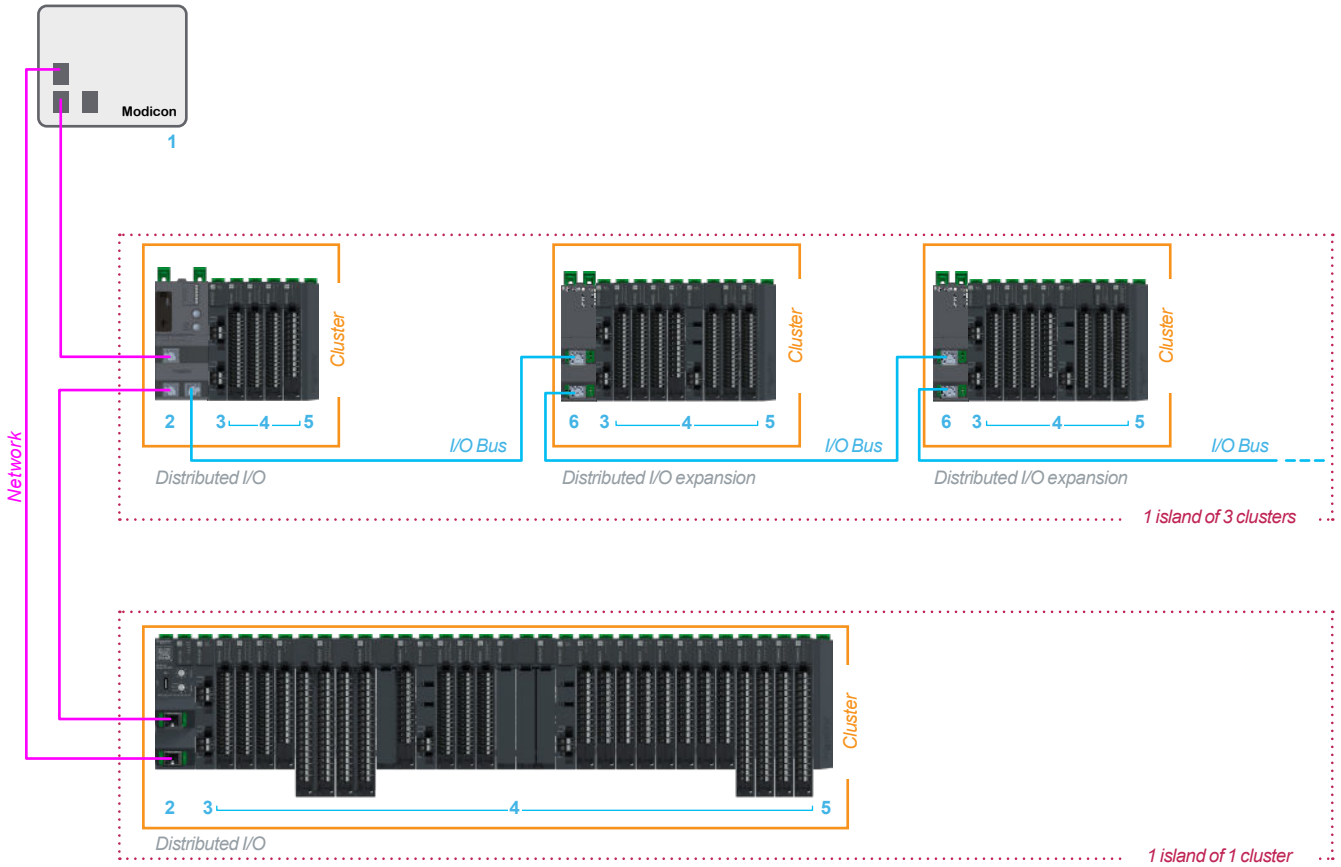
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Topology

Topology

Typical Modicon Edge I/O NTS island / cluster



Cluster detailed solution

1 PLC
2 Network Interface module
3 Power Supply module
4 Discrete module, Analog module, Counting module, Motion Expert module *(2)*, Field device master module, Passive module
5 Cluster Termination
6 Bus extender module

- The Cluster is made up of kits (pre-assembled Module and Base). The island is made up of 1 or more Clusters
- Up to 25 Clusters per island *(1)*
- Up to 32 Modules per Cluster
- Up to 250 Modules per island *(1)*

- A high-speed Ethernet backbone provides communication and power transmission between modules.
- Fast device replacement in 5 steps:
  - Password Requirement
  - Scan Setup
  - Setup configuration in DHCP name
  - FDR Backup
  - Head replacement

(1) Available soon. (2) Planned commercialization.

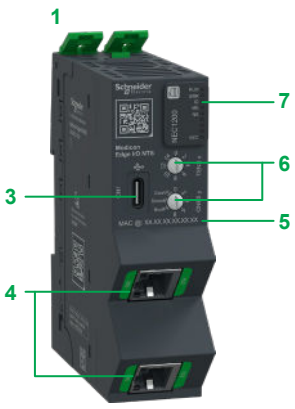
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Topology

Topology

System components



- Two versions of the head of a cluster:

1 Standard version: -20 to +60°C *(-4 to +140°F)* operating temp, and 30 mm width

2 Hardened version: -40 to +70°C *(-40 to +158°F)* operating temp, and 45 mm width

3 USB port
- USB-C as commissioning port, to save configuration for OPC UA Server
- Access to integrated webserver/ Configurator

4 Two Ethernet ports
- EtherNet/IP, Modbus TCP and Sercos III *(2)*
- Baud rate: 100 Mbits/s, or 1 Gbits/s
- Redundancy capacity
- Diagnostics
- Daisy chain, RSTP

5 Marking: mac adress written on the front

6 Rotary switches:
- Manual IP definition
- DHCP

7 LED for maintenance information

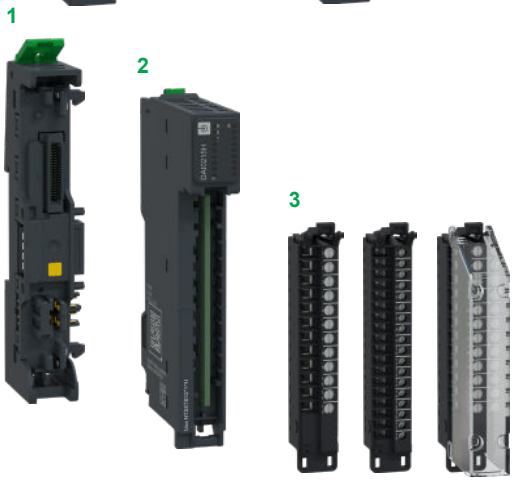
8 Rotary switch for Cybersecure mode

- Two versions of the power supply modules:

1 To distribute Bus Power supply for Network Interface modules (NIM), and modules

2 To distribute Field Power supply in a cluster of modules

- Both Hardened: -40 to +70°C *(-40 to +158°F)* operating temp, and 15 mm *(0.59 in)* width, with Automatic disjunction



- I/O modules are Discrete, Analog, Counting, Motion Expert *(2)*, Field device master and Passive
- Three parts to operate:

1 a base, for mounting on Din rail, easily with one hand

2 an I/O module

3 a removable terminal block

- Sold as a kit: a Base (1) pre-assembled to a Module (2). The terminal block (3) is to order separately
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation
- Available in two versions
  - Standard version: -20 to +60°C (-4 to +140°F) operating temp
  - Hardened version: -40 to +70°C *(-40 to +158°F)* operating temp
- Completed with a removable terminal block
  - to unplug easily for commissioning, maintenance, and testing
  - With Spring or Screw connectors, with or without cover

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Discrete inputs (DC, AC)

Function										
		Discrete inputs								
										
Number of Channels		6	8	16	16	16	4	2 (isolated)	4	8
Discrete input voltage		24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VAC or 48 VAC/DC (configurable)	100...240 VAC	100...120 VAC	100...120 VAC
Discrete input logic		Positive logic (sink)				Negative logic (source)	–	–	–	–
Number of channel groups		1 group	1 group	1 group	4 groups of 4 channels non isolated	1 group	1 group	2 groups of 1 channel isolated	1 group	1 group
Discrete input compatibility (conforming to IEC61131-2)		6 Type 3	8 Type 3	16 Type 3	16 Type 3	16 Type 3	4 Type 1	2 Type 1	4 Type 1	8 Type 1
Wiring mode		1-2-3-wire	1-2-wire	1-wire	1-2-3-wire	1-wire	1-2-3-wire	1-2-3-wire	1-2-wire	1-wire
Discrete input current		2.5 mA	2.5 mA	2.5 mA	2.5 mA	2.5 mA	2...4 mA	3.6 mA at 120 VAC, 50 Hz 7.1 mA at 230VAC, 50 Hz	6.7 mA at 120 VAC 50 Hz	6.5 mA at 120 VAC 50 Hz
Voltage	State 1 guaranteed	11...30 VDC	11...30 VDC	11...30 VDC	11...30 VDC	11...30 VDC	≥ 34 VAC for 48 VAC ≥ 14 VAC for 24 VAC ≥ 34 VDC for 48 VDC	≥ 79 V	≥ 79 V	≥ 79 V
	State 0 guaranteed	< 5 VDC	< 5 VDC	< 5 VDC	< 5 VDC	< 5 VDC	≤ 10 VAC for 48 VAC ≤ 5 VAC for 24 VAC ≤ 10 VDC for 48 VDC	≤ 40 V	≤ 20 V	≤ 20 V
Current	State 1 guaranteed	≥ 2 mA (Type 3)	≥ 2 mA (Type 3)	≥ 2 mA (Type 3)	≥ 2 mA (Type 3)	≥ 2 mA (Type 3)	> 2 mA	> 2 mA	> 2 mA	> 2 mA
	State 0 guaranteed	≤1.5 mA	≤1.5 mA	≤1.5 mA	≤1.5 mA	≤ 1.5 mA	< 2 mA	< 2 mA	< 2 mA	< 2 mA
Input reponse time	State 1 to state 0	< 125 µs	< 60 µs	< 125 µs	< 60 µs	< 125 µs	9.28 ms (fixed)	> 11.6 ms	> 11.6 ms	> 11.6 ms
	State 0 to state 1	< 125 µs	< 90 µs	< 125 µs	< 90 µs	< 125 µs	9.28 ms (fixed)	> 5.8 ms	> 5.8 ms	> 5.8 ms
Input protection type		Over voltage protection Over current protection on sensor supply Reverse polarity protection		Over voltage protection	Over voltage protection Over current protection on sensor supply Reverse polarity protection	Over voltage and power protection	–	–	–	–
input diagnostic		Power supply error per channel Sensor power supply error per channel		Power supply error per channel	Power supply error per channel Sensor power supply error per channel		External power supply error per channel Broken wire error per channel			
Isolation	Between channels	–	–	–	–	–	–	1780 VAC	–	–
	Between groups	–	–	–	–	–	–	–	–	–
	Between channel and bus	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	3000 VAC	3000 VAC	3000 VAC	3000 VAC
	Between channels and earth ground	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	3000 VAC	3000 VAC	3000 VAC	3000 VAC
Synchronization *(2)*		**Yes**	–	**Yes**	–	**Yes**	–	–	–	–
Dangerous voltage		–	–	–	–	–	**Yes**	**Yes**	**Yes**	**Yes**
Size	Height	100 mm *(3.93 in)*	121 mm *(4.76 in)*	100 mm *(3.93 in)*	121 mm *(4.76 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)
Operating temperature	Standard version	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	–	–	–	-20 to +60°C *(-4 to +140°F)*
	Hardened version	–	–	–	-40 to +70°C *(-40 to +158°F)*	–	-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*	–
Sold as a kit (Base + Functionnal module)	Standard version	**NTSDDI0602K**	**NTSDDI0802XK**	**NTSDDI1602K** *(1)*	**NTSDDI1602XK** *(1)*	**NTSDDI1642K**	–	–	–	**NTSDAI0804K**
	Hardened version	–	–	–	**NTSDDI1602XHK** *(1)*	–	**NTSDAI0403HK**	**NTSDAI0215HK**	**NTSDAI0404HK**	–
See page		20								
Compatible terminal block	Number of points-Pitch-Voltage	18 Pts–3.81 mm–DC	18 Pts–5 mm–DC	18 Pts–3.81 mm–DC	18 Pts–5 mm–DC	18 Pts–3.81 mm–DC	12 Pts–5 mm–AC	12 Pts–5 mm–AC	12 Pts–5 mm–AC	12 Pts–5 mm–AC
	Number of terminal blocks to use	1	1	1	2	1	1	1	1	1
	Spring TB – Without cover	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**
	Spring TB – With cover	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**
	Screw TB – Without cover	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**
	Screw TB – With cover	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Discrete inputs (DC, AC)

Presentation

Function

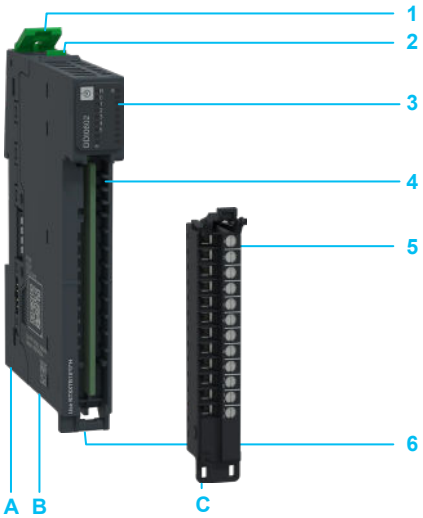
- The Discrete input kits include an electronic module and its corresponding Base, which match in height and width.
- The electronic module provides the Discrete Input function.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of Discrete modules through the Backplane bus. The Base also provides fieldtest device power supply.
- Discrete input kits provide from 2 up to 16 channels with different level of performance, protection or diagnostic.

Implementation

- The Discrete input kits use 1 slot (15 mm *(0.59 in)* width)), or 2 slots (30 mm *(1.18 in)* width) on DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered:
  - in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*
  - in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.



Description

A Discrete input kit comprises a Base **A**, and an electronic module **B**. The terminal block **C** is to order separately.

1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs:
  - 1 LED (Green) module operating (RUN)
  - 1 LED per channel (Green) channel diagnostic
  - 1 LED (Red) module error (ERR)
4 Housing for the terminal block
5 Terminal block
6 Hinge for the terminal block installation

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Discrete inputs (DC, AC)

NTSDDI0602K
NTSDDI1602K
NTSDDI1642K
NTSDAI0804K
NTSDAI0215HK
NTSDAI0403HK
NTSDAI0404HK

NTSDDI0802XK

NTSDDI1602XK
NTSDDI1602XHK

12 Pts–5 mm–DC/AC

18 Pts–5 mm–DC

18 Pts–3.81 mm–DC

References

Number of Channels	Rated input voltage	Logic type	Wiring mode	Synchronization (2)	Version	Reference	Weight kg/ lb
Discrete input kits (Discrete input module + Base)							
6	24 VDC	Sink	1-2-3-wire	**Yes**	Standard	**NTSDDI0602K**	0.099/ *0.218*
8	24 VDC	Sink	1-2-wire	–	Standard	**NTSDDI0802XK**	0.106/ *0.233*
16	24 VDC	Sink	1-wire	**Yes**	Standard	**NTSDDI1602K** *(1)*	0.099/ *0.218*
		Sink	1-2-3-wire	–	Standard	**NTSDDI1602XK** *(1)*	0.163/ *0.359*
			1-2-3-wire	–	Hardened	**NTSDDI1602XHK** *(1)*	0.166/ *0.365*
		Source	1-wire	**Yes**	Standard	**NTSDDI1642K**	0.166/ *0.365*
4	24 VAC or 48 VAC/DC (configurable)	–	1-2-3-wire	–	Hardened	**NTSDAI0403HK**	0.077/ *0.169*
2 (isolated)	100...240 VAC	–	1-2-3-wire	–	Hardened	**NTSDAI0215HK**	0.077/ *0.169*
4	100...240 VAC	–	1-2-wire	–	Hardened	**NTSDAI0404HK**	0.099/ *0.218*
8	100...240 VAC	–	1-wire	–	Standard	**NTSDAI0804K**	0.077/ *0.169*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 Pts–5 mm–AC	Spring	Without cover	**NTSXTB12210H**	0.029/*0.063*	*NTSDAI0215HK, NTSDAI0403HK, NTSDAI0404HK, NTSDAI0804K*
		With cover	**NTSXTB12211H**	0.040/*0.088*	
	Screw	Without cover	**NTSXTB12010H**	0.048/*0.105*	*NTSDAI0215HK, NTSDAI0403HK, NTSDAI0404HK, NTSDAI0804K*
		With cover	**NTSXTB12011H**	0.058/*0.127*	
18 Pts–5 mm–DC	Spring	Without cover	**NTSXTB18200XH**	0.038/*0.083*	*NTSDDI0802XK, NTSDDI1602XK (1)(3), NTSDDI1602XHK (1)(3)*
		With cover	**NTSXTB18201XH**	0.050/*0.110*	
	Screw	Without cover	**NTSXTB18000XH**	0.064/*0.141*	*NTSDDI0802XK, NTSDDI1602XK (1)(3), NTSDDI1602XHK (1)(3)*
		With cover	**NTSXTB18001XH**	0.077/*0.169*	
18 Pts–3.81 mm–DC	Spring	Without cover	**NTSXTB18200H**	0.028/*0.061*	*NTSDDI0602K, NTSDDI1602K (1), NTSDDI1642*
		With cover	**NTSXTB18201H**	0.038/*0.083*	
	Screw	Without cover	**NTSXTB18000H**	0.039/*0.085*	*NTSDDI0602K, NTSDDI1602K (1), NTSDDI1642K*
		With cover	**NTSXTB18001H**	0.049/*0.108*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) Available soon. (2) Planned commercialization. (3) This kit requests two terminal blocks. (2) Planned commercialization.

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Discrete outputs (Transistor, Relay, Triac)

Function		Discrete outputs												
														
Number of Channels		2 (isolated)	4	6	8	8	16	16	16	2 (Form C with NO/NC contacts)	4 (Form C with NO/ NC contacts)	6 (Form A with NO contact)	2	4
Discrete output type		**Transistor**								**Relay**			**Triac**	
Discrete output voltage		24 VDC								24 to 250 VAC (47...63 Hz)			80...264 VAC (47...63 Hz)	
Number of channel groups		2 groups of 1 channel isolated	1 group	1 group	2 groups of 4 channel non isolated	1 group	1 group	2 isolated groups of 8 channels		2 groups of 1 channel isolated	4 groups of 1 channel isolated	6 groups of 1 channel isolated	1 group	4 groups of 1 channel isolated
Discrete output logic		Positive logic (source)								–				
Wiring mode		1-2-3-wire	1-2-3-wire	1-2-3-wire	1-wire	1-2-wire	1-wire	1-2-wire	1-2-wire	2-wire	2-wire	2-wire	1-2-3-wire	1-2-3-wire
Discrete output current		2 A per channel, 4 A per module	500 mA per channel, 2 A per module	500 mA per channel, 3A per module	2 A per channel, 4 A per group, 8 A per module	0.5 A per channel, 4 A per module	500 mA per channel, 8 A per module	500 mA per channel, 4 A per group, 8 A per module	0.5 A per channel, 4 A per module	2 A max. per output at 30 VDC or 250 VAC (resistive) 0.2 A max. per output at 125 VDC (resistive)	5 A max. per output at 30 VDC or 250 VAC (resistive) 0.2 A max. per output at 125 VDC (resistive)		1 A per channel	2 A per channel
Minimum switching current		–	–	–	–	–	–	–	–	10 mA 5 VDC			–	–
Operating voltage range		19.2...30 VDC											80...264 VAC (47...63 Hz)	
Output reponse time	State 1 to state 0	120 µs	110 µs	120 µs	110 µs	110 µs	110 µs	110 µs	110 µs	< 13 ms (deactivation)		< 10 ms (deactivation)	0.5 line cycles max.	
	State 0 to state 1	70 µs	90 µs	70 µs	90 µs	90 µs	90 µs	90 µs	90 µs	< 20 ms (activation)		< 20 ms (activation)	0.5 line cycles max.	
Output protection type	Transient voltage suppression per channel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	RC snubber suppression per channel	
	Short circuit protection per channel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–			
	Overload / thermal protection per channel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–			
	Reverse polarity protection per module	Yes (for using internal field power)	Yes	Yes	–	Yes	Yes	–	Yes	–	–			
Power supply type	Bus power from power supply bus (24 VDC)	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
	Field power from power supply field	24 VDC (Optional)	24 VDC	24 VDC	–	24 VDC	24 VDC	–	24 VDC	24 VDC	24 VDC	24 VDC	–	–
	Field power from external power supply	24 VDC (Optional)	–	–	24 VDC	–	–	24 VDC	–	5...125 VDC or 24...250 VAC			100...240 VAC	
Output diagnostic	Power supply error per channel	Yes	Yes	Yes	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–
	External power supply error per channel	Yes	–	–	Yes	–	–	Yes	–	–	–	–	Yes	Yes
	Short circuit / Over current error per channel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–
	Broken wire error per channel	–	Yes	–	–	–	–	–	–	–	–	–	–	–
	Read back error per channel	–	Yes	–	–	–	–	–	–	–	–	–	–	–
Isolation	Between channels	500 VAC	–	–	–	–	–	–	–	1780 VAC	1780 VAC	1780 VAC	–	2500 VAC
	Between groups	–	–	–	–	–	–	500 VAC	–	–	–	–	–	–
	Between channel and bus	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	3000 VAC	3000 VAC	3000 VAC	3000 VAC	3000 VAC
	Between channels and earth ground	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	3000 VAC	3000 VAC	3000 VAC	3000 VAC	3000 VAC
Synchronization *(2)*		**Yes**	**Yes**	**Yes**	**Yes**	–	**Yes**	–	–	–	–	–	–	–
Dangerous voltage		–	–	–	–	–	–	–	–	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Size	Height	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	121 mm *(4.76 in)*	100 mm *(3.93 in)*	121 mm *(4.76 in)*	121 mm *(4.76 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)	30 mm *(1.18 in)* (2 slots)	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)	30 mm *(1.18 in)* (2 slots)	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)
Operating temperature	Standard version	–	-20 to +60°C *(-4 to +140°F)*											
	Hardened version	-40 to +70°C *(-40 to +158°F)*		–	–	–		-40 to +70°C *(-40 to +158°F)*		–	-40 to +70°C *(-40 to +158°F)*	–	–	-40 to +70°C *(-40 to +158°F)*
Sold as a kit (Base + Functionnal module)	Standard version	–	**NTSDDO0402K**	**NTSDDO0602K**	**NTSDDO0802K**	**NTSDDO0802XK** *(1)*	**NTSDDO1602K** *(1)*	**NTSDDO1602XAK**	**NTSDDO1602XK**	**NTSDRC0215K**	**NTSDRC0415K**	**NTSDRA0615K**	**NTSDAO0205K**	**NTSDAO0415K**
	Hardened version	**NTSDDO0212HK** *(1)*	**NTSDDO0402HK**	–	–	–	–	**NTSDDO1602XAHK**	**NTSDDO1602XHK**	–	**NTSDRC0415HK**	–	–	**NTSDAO0415HK**
See page		25												
Compatible terminal blocks	Number of points-Pitch-Voltage	12 Pts–5 mm–DC	12 Pts–5 mm–DC	18 Pts–3.81 mm–DC	12 Pts–5 mm–DC	18 Pts–5 mm–DC	18 Pts–3.81 mm–DC	18 Pts–5 mm–DC	18 Pts–5 mm–DC	12 Pts–5 mm–AC	12 Pts–5 mm–AC	12 Pts–5 mm–AC	12 Pts–5 mm–AC	12 Pts–5 mm–AC
	Number of terminal blocks to use	1	1	1	1	1	1	2	2	1	1	1	1	1
	Spring TB – Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200H**	**NTSXTB12200H**	**NTSXTB18200XH**	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200XH**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**
	Spring TB – With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201H**	**NTSXTB12201H**	**NTSXTB18201XH**	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201XH**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**
	Screw TB – Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000H**	**NTSXTB12000H**	**NTSXTB18000XH**	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000XH**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**
	Screw TB – With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001H**	**NTSXTB12001H**	**NTSXTB18001XH**	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001XH**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Discrete outputs (Transistor, Relay, Triac)

Presentation

Function

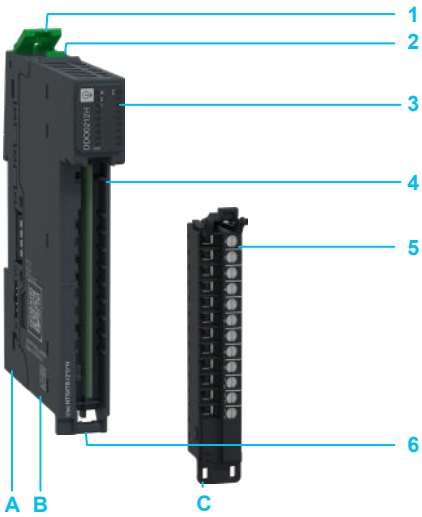
- The Discrete output kits include an electronic module and its corresponding Base, which match in height and width.
- The electronic module provides the Discrete output function.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of Discrete modules through the Backplane bus. The Base also provides fieldtest device power supply.
- Discrete output kits provide from 2 up to 16 channels with different level of performance, protection or diagnostic.

Implementation

- The Discrete output kits use 1 slot (15 mm *(0.59 in)* width)), or 2 slots (30 mm *(1.18 in)* width) on DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered:
  - in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*
  - in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions..
- An external power supply is required for two kits.



Description

A Discrete output kit comprises a Base **A**, and an electronic module **B**. The terminal block **C** is to order separately.

1 Mechanical clip for locking on DIN rail and modules between them

2 Release button for disengaging the module from the Base

3 Status LEDs:
- 1 LED (Green) module operating (RUN)
- 1 LED per channel (Green) channel diagnostic
- 1 LED (Red) module error (ERR)

4 Housing for the terminal block

5 Terminal block

6 Hinge for the terminal block installation

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Discrete outputs (Transistor, Relay, Triac)

NTSDDO0212HK
NTSDDO0402K
NTSDDO0402KHK
NTSDDO0602K
NTSDDO0802K
NTSDDO1602K
NTSDRC0215K
NTSDAO0205K

NTSDDO0802XK

NTSDDO1602XAK/HK
NTSDDO1602XK/HK

NTSDRC0415K/HK
NTSDRA0615K
NTSDAO0415K/HK

12 Pts–5 mm–DC/AC

18 Pts–5 mm–DC

18 Pts–3.81 mm–DC

References

Discrete output kits (Discrete output module + Base)

Number of Channels	Rated output voltage	Output type	Wiring mode	Synchronization (2)	Version	Reference	Weight kg/*lb*
2 (isolated)	24 VDC	Transistor Source	1-2-3-wire	**Yes**	Hardened	**NTSDDO0212HK** *(1)*	0.099/*0.218*
4	24 VDC	Transistor Source	1-2-3-wire	**Yes**	Standard	**NTSDDO0402K**	0.099/*0.218*
			1-2-3-wire	**Yes**	Hardened	**NTSDDO0402HK**	0.099/*0.218*
6	24 VDC	Transistor Source	1-2-3-wire	**Yes**	Standard	**NTSDDO0602K**	0.077/*0.169*
8	24 VDC	Transistor Source	1-wire	**Yes**	Standard	**NTSDDO0802K**	0.098/*0.216*
			1-2-wire	–	Standard	**NTSDDO0802XK** *(1)*	0.107/*0.235*
16	24 VDC	Transistor Source	1-wire	**Yes**	Standard	**NTSDDO1602K** *(1)*	0.100/*0.220*
			1-2-wire	–	Standard	**NTSDDO1602XK**	0.138/*0.304*
			1-2-wire	–	Hardened	**NTSDDO1602XHK**	0.138/*0.304*
16	24 VDC	Transistor Source	1-2-wire	–	Standard	**NTSDDO1602XAK** *(3)*	0.138/*0.304*
			1-2-wire	–	Hardened	**NTSDDO1602XAHK** *(3)*	0.138/*0.304*
2 (Form C with NO/NC contacts)	24 to 250 VAC (47...63 Hz)	Relay	2-wire	–	Standard	**NTSDRC0215K**	0.077/*0.169*
4 (Form C with NO/NC contacts)	24 to 250 VAC (47...63 Hz)	Relay	2-wire	–	Standard	**NTSDRC0415K**	0.156/*0.343*
		Relay	2-wire	–	Hardened	**NTSDRC0415HK**	0.157/*0.346*
6 (Form A with NO contact)	120 VDC/230 VAC	Relay	2-wire	–	Standard	**NTSDRA0615K**	0.152/*0.335*
2	80...264 VAC (47...63 Hz)	Triac	1-2-3-wire	–	Standard	**NTSDAO0205K**	0.099/*0.218*
4	80...264 VAC (47...63 Hz)	Triac	1-2-3-wire	–	Standard	**NTSDAO0415K**	0.131/*0.288*
4 (isolated)	80...264 VAC (47...63 Hz)	Triac	1-2-3-wire	–	Hardened	**NTSDAO0415HK**	0.158/*0.348*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 Pts–5 mm–DC	Spring	Without cover	**NTSXTB12200H**	0.029/*0.063*	*NTSDDO0212HK (1), NTSDDO0402HK, NTSDDO0402K, NTSDDO0802K*
		With cover	**NTSXTB12201H**	0.040/*0.088*	
	Screw	Without cover	**NTSXTB12000H**	0.048/*0.105*	
		With cover	**NTSXTB12001H**	0.058/*0.127*	
12 Pts–5 mm–AC	Spring	Without cover	**NTSXTB12210H**	0.029/*0.063*	*NTSDRC0215K, NTSDRC0415K, NTSDRC0415HK, NTSDRA0615K, NTSDAO0205K, NTSDAO0415K, NTSDAO0415HK*
		With cover	**NTSXTB12211H**	0.040/*0.088*	
	Screw	Without cover	**NTSXTB12010H**	0.048/*0.105*	
		With cover	**NTSXTB12011H**	0.058/*0.127*	
18 Pts–5 mm–DC	Spring	Without cover	**NTSXTB18200XH**	0.038/*0.083*	*NTSDDO0802XK (1), NTSDDO1602XAK (4), NTSDDO1602XAHK (4), NTSDDO1602XK (4), NTSDDO1602XHK (4)*
		With cover	**NTSXTB18201XH**	0.050/*0.110*	
	Screw	Without cover	**NTSXTB18000XH**	0.064/*0.141*	
		With cover	**NTSXTB18001XH**	0.077/*0.169*	
18 Pts–3.81 mm–DC	Spring	Without cover	**NTSXTB18200H**	0.028/*0.061*	*NTSDDO0602K, NTSDDO1602K (1)*
		With cover	**NTSXTB18201H**	0.038/*0.083*	
	Screw	Without cover	**NTSXTB18000H**	0.039/*0.085*	
		With cover	**NTSXTB18001H**	0.049/*0.108*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) Available soon. (2) Planned commercialization. (3) This kit requests an External power Supply source.
(4) This kit requests two terminal blocks.

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog inputs (Voltage/Current, Current)

Function							
		Analog inputs					
							
Number of Channels		2 (isolated)	4	4	8	4 (isolated)	8
Analog input type		**Voltage/Current**	**Voltage/Current**	**Voltage/Current**	**Voltage/Current**	**Current**	**Current**
	Input current	± 20 mA, 0...20 mA, 4...20 mA	± 20 mA, 0...20 mA, 4...20 mA	± 20 mA, 0...20 mA, 4...20 mA	± 20 mA, 0...20 mA, 4...20 mA	4...20 mA	± 20 mA, 4...20 mA (Standard) 4...20 mA (Hardened)
	Input voltage	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	–	–
Resolution		15 bits + sign	15 bits + sign	15 bits + sign	15 bits + Sign	15 bits + Sign	15 bits + Sign
Input impedance	Voltage	> 10 Ω	> 10 Ω	> 10 Ω	> 10 Ω	–	–
	Current	250 Ω + internal current protector, 10 Ω typical	250 Ω + internal current protector, 10 Ω typical	250 Ω + internal current protector, 10 Ω typical	Current: 100 Ω + internal current protector 10 Ω typical	Current: 250 Ω + internal current protector 10 Ω typical	Current: 250 Ohm + internal current protector 10 Ohm typical
Input protection type	Voltage	Over voltage / miswiring protection per channel	Over voltage / miswiring protection per channel	Over voltage / miswiring protection per channel	Over voltage / miswiring protection per channel	–	–
	Current	Over current / miswiring protection per channel	Over current / miswiring protection per channel	Over current / miswiring protection per channel	Over current / miswiring protection per channel	Over current / miswiring protection per channel	Over current / miswiring protection per channel
Sensor power supply protection		Over current and short circuit protection on sensor power supply per channel Over current and short circuit protection on loop power supply per channel	–	–	–	Over current and short circuit protection on loop power supply per channel	Over current and short circuit protection on loop power supply per channel
Input diagnostic		Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel Loop power supply error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel Loop power supply error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel Loop power supply error per channel Internal field power supply error per channel
Input wire connection		2-3-4-wire	2-wire	2-wire	1-2 wire	2-wire	2-wire (Standard) 1-2-wire (Hardened)
Accuracy		0.05% of Full Scale at 25°C and 0.1% of Full Scale over temperature range	0.3% of Full Scale at 25°C and 0.5% of Full Scale over temperature range	0.3% of Full Scale at 25°C and 0.5% of Full Scale over temperature	0.3% of Full Scale at 25°C and 0.5% of Full Scale over temperature	0.1% of Full Scale at 25°C and 0.3% of Full Scale over temperature	0.1% of Full Scale at 25°C and 0.3% of Full Scale over temperature
Isolation	Between channels	530 VAC	–	–	–	530 VAC	–
	Between groups	–	–	–	–	–	–
	Between channel and bus	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1000 VAC	1500 VAC
	Between channels and earth ground	–	–	–	–	–	–
	Between channels and field power	Not for module sensor power supply 1000 VAC for module loop power supply	–	1000 VAC	–	Not for external loop power supply 1000 VAC for module loop power supply	–
	Between field power and bus	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC	1500 VAC
Synchronization *(2)*		**Yes**	**Yes**	**Yes**	**Yes**	–	**Yes**
HART (Tolerance or Communication)		Tolerance	–	–	–	Communication	Tolerance
Size	Height	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	121 mm *(4.76 in)*	121 mm *(4.76 in)*
	Width	15 mm *(0.59 in)* (1 slot) 30 mm *(1.18 in)* (2 slots) (Hardened version)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)	30 mm *(1.18 in)* (2 slots)
Operating temperature	Standard version	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	-40 to +70°C *(-40 to +158°F)*	-20 to +60°C *(-4 to +140°F)*
	Hardened version	-40 to +70°C *(-40 to +158°F)*	–	–	–		-40 to +70°C *(-40 to +158°F)*
Sold as a kit (Base + Functionnal module)	Standard version	**NTSAMI0210K** *(1)*	**NTSAMI0400K**	**NTSAMI0420K**	**NTSAMI0800K**	–	**NTSACI0802XK**
	Hardened version	**NTSAMI0210HK** *(1)*	–	–	–	**NTSAHI0412XHK**	**NTSACI0802XHK**
See page		31					
Compatible terminal blocks	Number of points-Pitch-Voltage	12 Pts–5 mm–DC	12 Pts–5 mm–DC	12 Pts–5 mm–DC	18 Pts–3.81 mm–DC	18 - 5 mm *(0.19 in)* - DC	18 - 5 mm *(0.19 in)* - DC
	Number of terminal blocks to use	1	1	1	1	1	1
	Spring TB Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200XH**
	Spring TB With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201XH**
	Screw TB Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000XH**
	Screw TB With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001XH**

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog inputs (Temperature)

Function					
		Analog inputs			
					
Number of Channels		2 (isolated)	4	4	6
Analog input type		**Temperature**			
		■ Thermocouple: Type J/K/R/S/B/T/N/E/C/L/U ■ RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000, and High precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 ■ Voltage: ± 40 mV; ± 80 mV; ± 160 mV; ± 320 mV; ± 640 mV; ±1.28 V ■ Resistance: 150/300/600/2000/4500 Ω	■ Thermocouple: Type J/K/R/S/B/T/N/E/C/L/U ■ RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000, and High precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 ■ Voltage ± 40 mV; ± 80 mV; ± 160 mV; ± 320 mV; ± 640 mV; ±1.28 V ■ Resistance 150/300/600/2000/4500 Ω	■ Thermocouple: Type J/K/R/S/B/T/N/E/C/L/U ■ RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000, and High precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 ■ Voltage: ± 40 mV; ± 80 mV; ± 160 mV; ± 320 mV; ± 640 mV; ±1.28 V ■ Resistance: 150/300/600/2000/4500 Ω	■ Thermistor PTC 100 Ω to 10 kΩ, NTC 100 Ω to 200 kΩ or calculated temperature -90 to +150°C *(-130 to +302°F)* ■ RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000, and High precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 ■ Resistance 100 Ω to 32 kΩ
Signal type		Differential	Differential	Differential	Differential
Resolution		16 bits with Overflow	16 bits with Overflow	16 bits with Overflow	16 bits with Overflow
Input impedance		1 MΩ Typical	1 MΩ Typical	1 MΩ Typical	1 MΩ Typical
Input protection type		Overvoltage protection	Overvoltage protection	Overvoltage protection	Overvoltage protection
Input wire connection		2-3-4-wire for RTD and Resistance inputs 2-wire for Thermocouple and Voltage inputs	2-3-wire for RTD and Resistance inputs, 2-wire for Thermocouple and Voltage inputs	2-3-4-wire for RTD and Resistance inputs, 2-wire for Thermocouple and Voltage inputs	2-3-4-wire for RTD and Resistance inputs 2-wire for thermistor NTC/PTC inputs
Input protection type		Overvoltage protection	Overvoltage protection	Overvoltage protection	Overvoltage protection
Sensor power supply protection		–	–	–	–
Input diagnostic		Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel CJC error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel CJC error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel CJC error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel Internal field power supply error per channel
Isolation	Between channels	530 VAC	-	-	-
	Between groups	-	-	-	-
	Between channel and bus	1500 VAC	1500 VAC	1500 VAC	1500 VAC
	Between channels and earth ground	-	-	-	-
	Between channels and field power	1000 VAC	1000 VAC	1000 VAC	1000 VAC
	Between field power and bus	1500 VAC	1500 VAC	1500 VAC	1500 VAC
Synchronization *(2)*		–	–	–	–
Size	Height	100 mm *(3.93 in)*	100 mm *(3.93 in)*	121 mm *(4.76 in)*	100 mm *(3.93 in)*
	Width	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)
Operating temperature	Standard version	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*	–	-20 to +60°C *(-4 to +140°F)*
	Hardened version	-40 to +70°C *(-40 to +158°F)*	–	-40 to +70°C *(-40 to +158°F)*	-
Sold as a kit (Base + Functionnal module)	Standard version	**NTSART0214K**	**NTSART0404K**	–	**NTSART0603K**
	Hardened version	**NTSART0214HK**	–	**NTSART0404XHK**	–
See page		31			
Compatible terminal blocks	Number of points-Pitch-Voltage	12 Pts–5 mm–DC	12 Pts–5 mm–DC	18 Pts–5 mm–DC	18 Pts–3.81 mm–DC
	Number of terminal blocks to use	1	1		1
	Spring TB Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200XH**	**NTSXTB18200H**
	Spring TB With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201XH**	**NTSXTB18201H**
	Screw TB Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000XH**	**NTSXTB18000H**
	Screw TB With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001XH**	**NTSXTB18001H**

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog inputs (Voltage/Current, Current, Temperature)

Presentation

Function

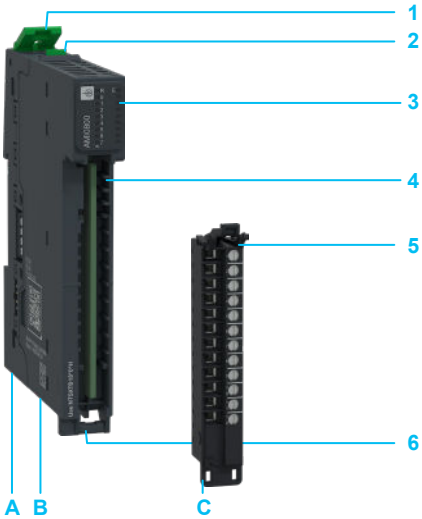
- The Analog input kits include an electronic module and its corresponding Base, which match in height and width.
  - The electronic module provides the current, voltage, or temperature input functions.
  - The Base ensures the mounting on the Din rail, the transmission of data and the supply of Analog modules through the Backplane bus. The Base also provides fieldtest device power supply.
- Analog input kits provide 2 up to 8 channels with different level of performance, protection or diagnostic.

Implementation

- The Analog input kits use 1 slot (15 mm *(0.59 in)* width)), or 2 slots (30 mm *(1.18 in)* width) on DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered:
  - in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*
  - in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- Analog input kit has the capacity to configure some channels in voltage and some others in current.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.



Description

An Analog input kit comprises a Base **A**, and an electronic module **B**. The terminal block **C** is to order separately.

1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs:
  - 1 LED (Green) module operating (RUN)
  - 1 LED per channel (Green) channel diagnostic
  - 1 LED (Red) module error (ERR)
4 Housing for the terminal block
5 Terminal block
6 Hinge for the terminal block installation

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog inputs (Voltage/Current, Current, Temperature)

NTSAMI0210K
NTSAMI0400K
NTSAMI0420K
NTSAMI0800K
NTSART0214K/HK
NTSART0404K
NTSART0603K

NTSAMI0210HK

NTSAHI0412XHK

NTSACI0802XK/HK

NTSART0404XHK

References

Analog input kits (Analog intput module + Base)

Number of Channels	Type	HART	Wiring mode	Synchronization (2)	Version	Reference	Weight kg/lb
2 (isolated)	**Voltage**: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC **Current**: ± 20 mA, 0...20 mA, 4...20 mA	Tolerance	2-3-4 wire	**Yes**	Standard	**NTSAMI0210K** (1)	0.100/0.220
			2-3-4 wire	**Yes**	Hardened	**NTSAMI0210HK** (1)	0.143/0.315
4		–	2-wire	**Yes**	Standard	**NTSAMI0400K**	0.098/0.216
			2-wire	**Yes**	Standard	**NTSAMI0420K**	0.077/0.169
8			1-2-wire	**Yes**	Standard	**NTSAMI0800K**	0.077/0.169
4 (isolated)	**Current**: 4...20 mA	Communication	2-wire	–	Hardened	**NTSAHI0412XHK**	0.138/0.304
8	**Current**: ± 20 mA, 4...20 mA	Tolerance	2-wire	**Yes**	Standard	**NTSACI0802XK**	0.138/0.304
	Current: 4...20 mA	Tolerance	1-2-wire	**Yes**	Hardened	**NTSACI0802XHK**	0.138/0.304
2 (isolated)	**Temperature**: - Thermocouple: Type J/K/R/S/B/T/N/E/C/L/U - RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/1000, and High precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 - Voltage: ± 40 mV, ± 80 mV, ± 160 mV, ± 320 mV; ± 640 mV; ± 1.28 V - Resistance: 150/300/600/2000/4500 Ω	–	2-3-4-wire for RTD and Resistance inputs 2-wire for Thermocouple and Voltage inputs	–	Standard	**NTSART0214K**	0.077/0.169
				–	Hardened	**NTSART0214HK**	0.077/0.169
4			2-3-wire for RTD and Resistance inputs 2-wire for Thermocouple and Voltage inputs	–	Standard	**NTSART0404K**	0.077/0.169
			2-3-4-wire for RTD and Resistance inputs 2-wire for Thermocouple and Voltage inputs	–	Hardened	**NTSART0404XHK**	0.077/0.169
6	**Temperature**: - Thermistor PTC 100 Ω to 10 kΩ, NTC 100Ω to 200 kΩ or calculated temperature -90 to +150°C *(-130 to +302°F)* - RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000, and High precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 - PT100/1000 - Resistance 100 Ω to 32 kΩ	–	2-3-4-wire for RTD and Resistance inputs 2-wire for thermistor NTC/PTC inputs	–	Standard	**NTSART0603K**	0.077/0.169

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/lb	For use with the kit
12 Pts–5 mm–DC	Spring	Without cover	**NTSXTB12200H**	0.029/0.063	*NTSAMI0210K (1), NTSAMI0210HK (1), NTSAMI0400K, NTSAMI0420K, NTSART0214K, NTSART0214HK, NTSART0404K*
		With cover	**NTSXTB12201H**	0.040/0.088	
	Screw	Without cover	**NTSXTB12000H**	0.048/0.105	
		With cover	**NTSXTB12001H**	0.058/0.127	
18 Pts–5 mm–DC	Spring	Without cover	**NTSXTB18200XH**	0.038/0.083	*NTSAHI0412XHK, NTSACI0802XK, NTSACI0802XHK, NTSART0404XHK*
		With cover	**NTSXTB18201XH**	0.050/0.110	
	Screw	Without cover	**NTSXTB18000XH**	0.064/0.141	
		With cover	**NTSXTB18001XH**	0.077/0.169	
18 Pts–3.81 mm–DC	Spring	Without cover	**NTSXTB18200H**	0.028/0.061	*NTSAMI0800K, NTSART0603K*
		With cover	**NTSXTB18201H**	0.038/0.083	
	Screw	Without cover	**NTSXTB18000H**	0.039/0.085	
		With cover	**NTSXTB18001H**	0.049/0.108	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) Available soon. (2) Planned commercialization.

12 Pts–5 mm–DC/AC

18 Pts–5 mm–DC

18 Pts–3.81 mm–DC

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog outputs (Current, Voltage/Current)

Function					
			Analog outputs		
					
Number of Channels			2 (isolated)	2 (isolated)	4
Analog output type			**Current**	**Voltage/Current (Single end/Differential)**	**Voltage/Current (Single end)**
			4...20 mA	Voltage: ± 10 V, 0...10 VDC, ± 5 VDC, 0...5 V, 1...5 VDC Current: ± 20 mA, 0...20 mA, 4...20 mA	Voltage: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC Current: 0...20 mA, 4...20 mA
Resolution			16 bits	15 bits + sign	15 bits + sign
Output impedance			Current output: 750 Ω max.	Voltage output: 1 kΩ minimum Current output: 750 Ω max.	Voltage output: 1 kΩ minimum Current output: 600 Ω max.
Output protection			Current output: over voltage 30V	Voltage output: short circuit: 16 mA, over voltage: 30 V Current output: over voltage 30 V	Voltage output: short circuit: 16 mA, over voltage: 30 V Current output: over voltage 30 V
Output response time			500 µs at 8750 Ohm per module (HART disabled)	522 µs at 750 Ω per module	912 µs at 600 Ω per module
HART (Tolerance or Communication)			Communication	Tolerance	Tolerance
Output diagnostic			Underflow error per channel Overflow error per channel Broken wire error per channel Short circuit error per channel Hardware error per channel Calibration error per channel DAC power error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Short circuit error per channel Hardware error per channel Calibration error per channel DAC power error per channel Internal field power supply error per channel	Underflow error per channel Overflow error per channel Broken wire error per channel Short circuit error per channel Hardware error per channel Calibration error per channel DAC power error per channel Internal field power supply error per channel
Output wire connection			2-wire	2-3-4-wire	2-wire
Accuracy			0.1 % / 0.2 % of full scale	0.1 % / 0.2 % of full scale	0.1 % / 0.2 % of full scale
Isolation	Between channels		530 VAC	530 VAC	–
	Between groups		–	–	–
	Between channel and bus		1500 VAC	1500 VAC	1500 VAC
	Between channels and earth ground		–	–	–
	Between channels and field power		1000 VAC	1000 VAC	–
	Between field power and bus		1500 VAC	1500 VAC	1500 VAC
Synchronization *(2)*			–	**Yes**	**Yes**
Size	Height		100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width		30 mm *(1.18 in)* (2 slots)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)
Operating temperature	Standard version		–	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*
	Hardened version		-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*
Sold as a kit (Base + Functionnal module)	Standard version		–	**NTSAMO0210K**	**NTSAMO0400K**
	Hardened version		**NTSAHO0212HK**	**NTSAMO0210HK**	**NTSAMO0400HK**
See page			35		
Compatible terminal blocks	Number of points-Pitch-Voltage		12 Pts–5 mm–DC	12 Pts–5 mm–DC	12 Pts–5 mm–DC
	Number of terminal blocks to use		1	1	1
	Spring TB	Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB12200H**
		With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB12201H**
	Screw TB	Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB12000H**
		With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB12001H**

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog outputs (Current, Voltage/Current)

Presentation

Function

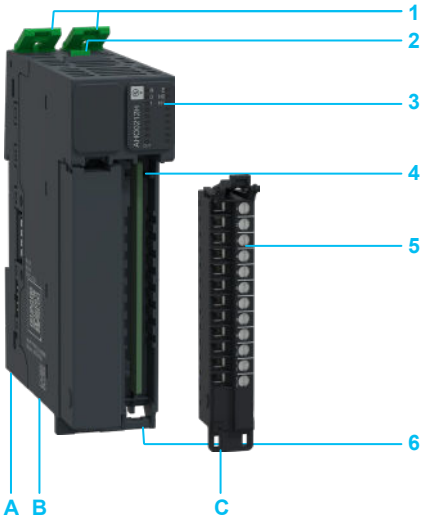
- The Analog output kits include an electronic module and its corresponding Base, which match in height and width.
- The electronic module provides current and Voltage/Current output functions.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of Analog modules through the Backplane bus. The Base also provides fieldtest device power supply.
- Analog output kits provide 2 up to 4 channels with different level of performance, protection or diagnostic.

Implementation

- The Analog output kits use 1 slot (15 mm *(0.59 in)* width)), or 2 slots (30 mm *(1.18 in)* width) on DIN rail, depending on the model .
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered:
  - in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*
  - in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.



Description

An Analog output kit comprises a Base **A**, and an Electronic module **B**. The terminal block **C** is to order separately.

1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs:
  - 1 LED (Green) module operating (RUN)
  - 1 LED per channel (Green) channel diagnostic
  - 1 LED (Red) module error (ERR)
4 Housing for the terminal block
5 Terminal block
6 Hinge for the terminal block installation

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog outputs (Current, Voltage/Current)

NTSAHO0212HK

NTSAMO0210K/HK
NTSAMO0400K/HK

12 Pts–5 mm–DC

References

Analog output kits (Analog output module + Base)

Number of Channels	Type	HART	Wiring mode	Synchronization *(2)*	Version	Reference	Weight kg/ *lb*
2 (isolated)	**Current**: 4...20 mA	Communication	2-wire	–	Hardened	NTSAHO0212HK	0.144/ *0.317*
2 (isolated)	**Current**: ± 20 mA, 0...20 mA, 4...20 mA **Voltage**: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	Tolerance	2-3-4-wire	Yes	Standard	NTSAMO0210K	0.077/ *0.169*
			2-3-4-wire	Yes	Hardened	NTSAMO0210HK	0.077/ *0.169*
4	**Current**: 0...20 mA, 4...20 mA **Voltage**: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	Tolerance	2-wire	Yes	Standard	NTSAMO0400K	0.101/ *0.222*
			2-wire	Yes	Hardened	NTSAMO0400HK	0.101/ *0.222*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 Pts–5 mm–DC	Spring	Without cover	NTSXTB12200H	0.029/*0.063*	*NTSAHO0212HK, NTSAMO0210K, NTSAMO0210HK, NTSAMO0400K, NTSAMO0400HK*
		With cover	NTSXTB12201H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12000H	0.048/*0.105*	
		With cover	NTSXTB12001H	0.058/*0.127*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) Available soon. (2) Planned commercialization.

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Analog Combo

Presentation

Function

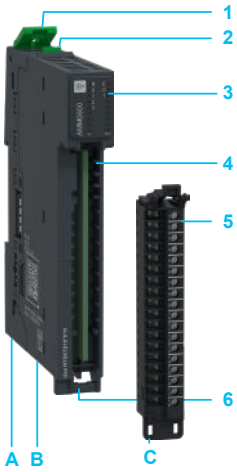
- The Analog combo kit includes an electronic module and its corresponding Base, which match in height and width..
- The electronic module provides the Analog I/O function.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of Analog combo through the Backplane bus. The Base also provides fieldtest device power supply.
- The Combo kit supports inputs and outputs on the same module to manage Voltage and Current I/Os, and provides 6 channels with different level of performance, protection or diagnostic.

Implementation

- The Analog combo kit use 1 slot (15 mm *(0.59 in)* width) on DIN rail.
- The kit must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The Analog combo kits are offered in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F).*
- Hot swap capability is available for each Combo: replacing or adding components without having to power down or interrupt the system's operation
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions..
- Diagnostic



Description

An Analog Combo kit comprises a Base **A**, and an electronic module **B**. The terminal block **C** is to order separately.

1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs:
- 1 LED (Green) module operating (RUN)
- 1 LED per channel (Green) channel diagnostic
- 1 LED (Red) module error (ERR)

4 Housing for the terminal block
5 Terminal block
6 Hinge for the terminal block installation

NTSAMM0600K (1)

18 Pts–3.81 mm–DC

References

Analog Combo kit (Combo module + Base)

Number and type of channel		Wiring mode	Isolation	Synchroniza-tion *(2)*	Version	Reference	Weight kg/ *lb*
4 analog inputs: - Voltage input ±10 V, 0/+10V, ±5V, 0/1...5V - Current input ±20 mA, 4...20 mA (16-bit max resolution)	**2 analog outputs**: - Voltage output -10/+10 VDC; 0/+10 VDC - Current output 0-20 mA; 4-20 mA (13-bit max resolution)	2-wire	3 (inputs to outputs group isolation)	Yes	Standard	NTSAMM0600K *(1)*	0.104/ *0.229*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
18 Pts–3.81 mm–DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSAMM0600K (1)(3)*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

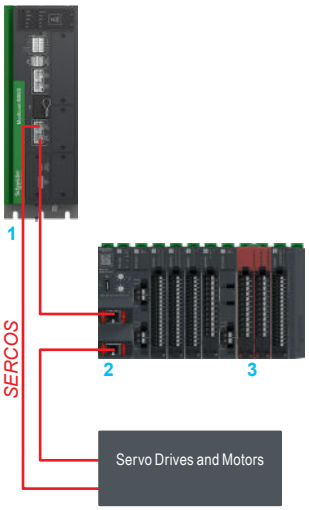
Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) Available soon. (2) Planned commercialization. (3) This kit requests two terminal blocks.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Motion Expert (Encoders, Fast I/Os, Pulse train outputs) *(1)*



1 Motion controller Modicon M660 *(1)*
2 Modicon Edge I/O NTS:Cluster composed of a Network Interface module, and a Power Supply module, and, according to a modular configuration, Discrete modules, Analog modules, Counting modules, Motion Expert modules, Field device master modules, or Passive modules.
3 Modicon Edge I/O NTS Integrated safety *(1)*

Presentation

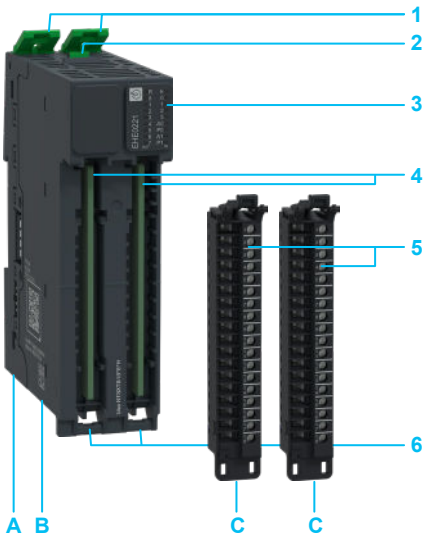
- The Motion Expert kits include an electronic module and its corresponding Base, which match in height and width.
  - The electronic module provides the motion function.
  - The Base ensures the mounting on the Din rail, the transmission of data and the supply of the Motion Expert module through the Backplane bus. The Base also provides fieldtest device power supply.
- Motion Expert kits control from 1 up to 8 axes with different level of performance, protection or diagnostic.

Implementation

- The Motion Expert kits use 1 slot (15 mm *(0.59 in)* width)), or 2 slots (30 mm *(1.18 in)* width) on DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- Motion Expert kits are offered as Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.



Description

A Motion Expert kit comprises a Base **A**, and an Electronic module **B**. The terminal blocks **C** are to order separately.
For standard version:

1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs:
  - 1 LED (Green) module operating (RUN)
  - 1 LED per channel (Green) channel diagnostic
  - 1 LED (Red) module error (ERR)
4 Housing for the terminal block *(2)*
5 Terminal block
6 Hinge for the terminal block installation *(2)*

(1) Planned commercialization. (2) This kit requests two terminal blocks.

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Counting (Incremental High-speed counter)

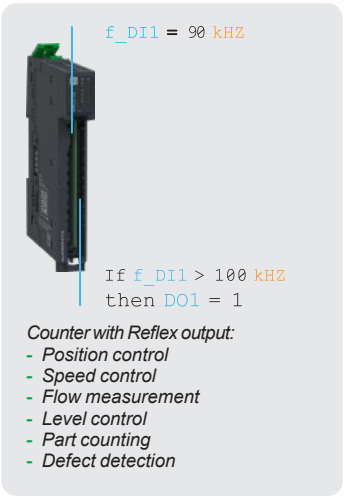
Function					
		Counting			
					
Number and type of channels		1 HSC channel for pulse counting It supports 6 Simple counting functions or 1 Single counting function or 1 Dual counting function or 1 Frequency meter or 1 Ratio meter or 1 Period meter	1 HSC channel for pulse counting It supports 6 Simple counting functions or 1 Single Counting function or 1 Dual Counting function or 1 Frequency meter or 1 Ratio meter or 1 Period meter or 1 PWM output	2 HSC channels for pulse counting It supports 12 Simple counting functions or 2 Single counting functions or 2 Dual counting functions or 2 Frequency meters or 2 Ratio meters or 2 Period meters or 2 PWM outputs
Counting frequency		250 kHZ	250 kHZ	250 kHZ
Inputs	Number	6	6	12
	Logic	Sink/Source	Sink/Source	Sink/Source
	Voltage	24 VDC	24 VDC	24 VDC
	Current	2.27 mA at 24V	2.27 mA at 24V	2.27 mA at 24 VDC
Outputs	Number	–	4	8
	Logic	–	Push-pull (use as Source)	Push-pull (use as Source)
	Voltage	–	24 VDC	24 VDC
	Limits	–	30 VDC	30 VDC
	current	–	0.5 A	0.5 A
Current consumption	Bus current	40 mA at 24 VDC	45 mA at 24 VDC	55 mA at 24 VDC
	Internal Field current maximun for input	3 mA	3 mA	3 mA
	Internal Field current maximun for output	–	500 mA at 24 VDC	500 mA at 24 VDC
Isolation	Isolation between channels	None	None	None
	Isolation between groups	850 VAC	850 VAC	850 VAC
	Isolation between channels and bus	1500 VAC	1500 VAC	1500 VAC
	Isolation between channels and ground	–	–	–
Synchronization *(2)*		**Yes**	**Yes**	**Yes**
Input protection		Over voltage Protection	Over voltage Protection	Over voltage Protection
Output protection		–	Short Circuit Protection	Short Circuit Protection
Size	Height	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)	30 mm *(1.18 in)* (2 slots)
Operating temperature	Standard version	-20 to +60°C *(-4 to +140°F)*	–	-20 to +60°C *(-4 to +140°F)*
	Hardened version	–	-40 to +70°C *(-40 to +158°F)*	–
Sold as a kit (Base + Functionnal module)	Standard version	**NTSEHC0100K**	–	**NTSEHC0220K**
	Hardened version	–	**NTSEHC0120HK**	–
See page		41		
Compatible terminal blocks	Number of points-Pitch-Voltage	12 Pts–5 mm–DC	12 Pts–5 mm–DC	18 Pts–3.81 mm–DC
	Number of terminal blocks to use	1	1	1
	Spring TB Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200H**
	Spring TB With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201H**
	Screw TB Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000H**
	Screw TB With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001H**

(1) Available soon. (2) Planned commercialization.

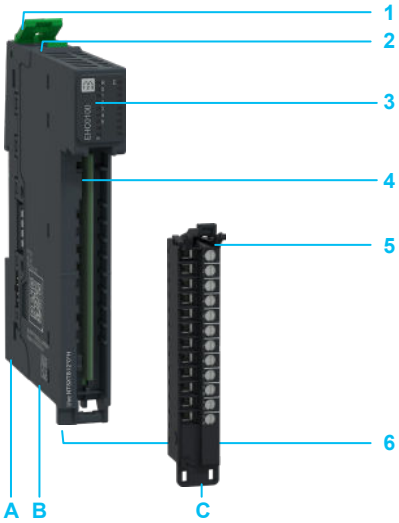
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Counting (Incremental High-speed counter)



Counter with Reflex output:
- *Position control*
- *Speed control*
- *Flow measurement*
- *Level control*
- *Part counting*
- *Defect detection*



Presentation

- The Counting kits include an electronic module and its corresponding Base, which match in height and width.
- The electronic module provides the high-speed counting function.
- The Base ensures the mounting on the Din rail, the transmission of data, and the supply of the Counting module through the Backplane bus. The Base also provides fieldtest device power supply.
- Combo counting kits provide 1 up to 2 channels with different level of performance, protection or diagnostic.

Implementation

- The Counting kits use 1 slot (15 mm *(0.59 in)* width)), or 2 slots (30 mm *(1.18 in)* width) on DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered:
  - in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*
  - in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.

Description

A Combo kit comprises a Base **A**, and an Electronic module **B**. The terminal block **C** is to order separately.

1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs:
  - 1 LED (Green) module operating (RUN)
  - 1 LED per channel (Green) channel diagnostic
  - 1 LED (Red) module error (ERR)
4 Housing for the terminal block
5 Terminal block
6 Hinge for the terminal block installation

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Counting (Incremental High-speed counter)

NTSEHC0100K

NTSEHC0120HK

NTSEHC0220K

12 Pts–5 mm–DC/AC

18 Pts–3.81 mm–DC

References

Counting kits (Counter module + Base)

Number of Channels	type	Discrete inputs	Discrete outputs	Synchronization *(2)*	Version	Reference	Weight kg/ *lb*
1	HSC channel for pulses counting **250 kHz** (using 4 inputs 24 VDC)	6x 24 VDC Sink/Source	–	Yes	Standard	NTSEHC0100K	0.096/ *0.211*
1	HSC channel for pulses counting **250 kHz** (using 4 inputs 24 VDC)	6x 24 VDC Sink/Source	4x 24 VDC Push-pull (use as Source)	Yes	Hardened	NTSEHC0120HK	0.159/ *0.350*
2	HSC channel for pulses counting **250 kHz** (using 8 inputs 24 VDC)	12x 24 VDC Sink/Source	8x 24 VDC Push-pull (use as Source)	Yes	Standard	NTSEHC0220K	0.164/ *0.361*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 Pts–5 mm–DC	Spring	Without cover	NTSXTB12200H	0.029/*0.063*	*NTSEHC0100K, NTSEHC0120HK (3*
		With cover	NTSXTB12201H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12000H	0.048/*0.105*	*NTSEHC0100K, NTSEHC0120HK (3)*
		With cover	NTSXTB12001H	0.058/*0.127*	
18 Pts–3.81 mm–DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSEHC0220K (3)*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	*NTSEHC0220K (3)*
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) Available soon. (2) Planned commercialization. (3) This kit requests two terminal blocks.

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Field Device Master

Function			
		Field Device Master: - Enabling efficient and reliable communication between field devices and the I/O system - Contributing to the overall performance and functionality of the control system	
			
Number of Channels		1	4
Protocol		Serial RS-485, Modbus RTU, ASCII, Client, 115 kbps	IO-Link Master, 4 Channels
Specification version		–	Compliant with IO-Link standard V1.1
Number of inputs and outputs		1 Serial Line	- Up to 4 discrete channels (configurable as input 24 VDC Sink or output 24 VDC Push-Pull 200 mA/channel for C/Q output) - Up to 4 additional discrete input channels
Exchange mode		IO Scanner Device mode: Up to 32 Modbus devices can be addressed.	C/Q signal in IO-Link master mode
Transmission standard		Serial RS-422/RS-485	IO-Link Master (IEC 61131-9) Standard with 4 ports
Transmission rate		Up to 115 kbps	COM1: 4.8 kbit/s, COM2: 38.4 kbit/s, COM3: 230.4 kbit/s
Communication port protocol		Modbus RTU Modbus ASCII ASCII	IO-Link
Communication features		- Serial 2-wire and 4-wire RS-422/RS-485	Ports Mode: - IO-Link (COM1/2/3) - SIO-Mode (Digital input or output) - Additional digital input (DI)
Power supply type		24 VDC SELV External power supply isolated	24 VDC SELV External power supply isolated
Protection type		–	Thermal protection Short circuit protection Overcurrent protection
Isolation	Isolation between channels	–	–
	Isolation between groups	–	–
	Isolation between channels and bus	Isolated	Isolated
	Isolation between channels and ground	–	–
	Isolation between IO-Link and bus	–	500 VAC RMS
Max. cable length		1200 m *(3937 ft)*	20 m *(65.6 ft)*
Synchronization *(2)*		–	**Yes**
Size	**Height**	100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)
Operating temperature	**Standard version**	-20 to +60°C *(-4 to +140°F)*	-20 to +60°C *(-4 to +140°F)*
	Hardened version	-40 to +70°C *(-40 to +158°F)*	–
Sold as a kit (Base + Functionnal module)	**Standard version**	**NTSFMB0120K**	**NTSFIO0400K** *(1)*
	Hardened version	**NTSFMB0120HK**	**–**
See page		45	
Compatible terminal blocks	**Number of points-Pitch-Voltage**	12 Pts–5 mm–DC	18 Pts–3.81 mm–DC
	Number of terminal blocks to use	1	1
	Spring TB **Without cover**	**NTSXTB12200H**	**NTSXTB18200H**
	Spring TB **With cover**	**NTSXTB12201H**	**NTSXTB18201H**
	Screw TB **Without cover**	**NTSXTB12000H**	**NTSXTB18000H**
	Screw TB **With cover**	**NTSXTB12001H**	**NTSXTB18001H**

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

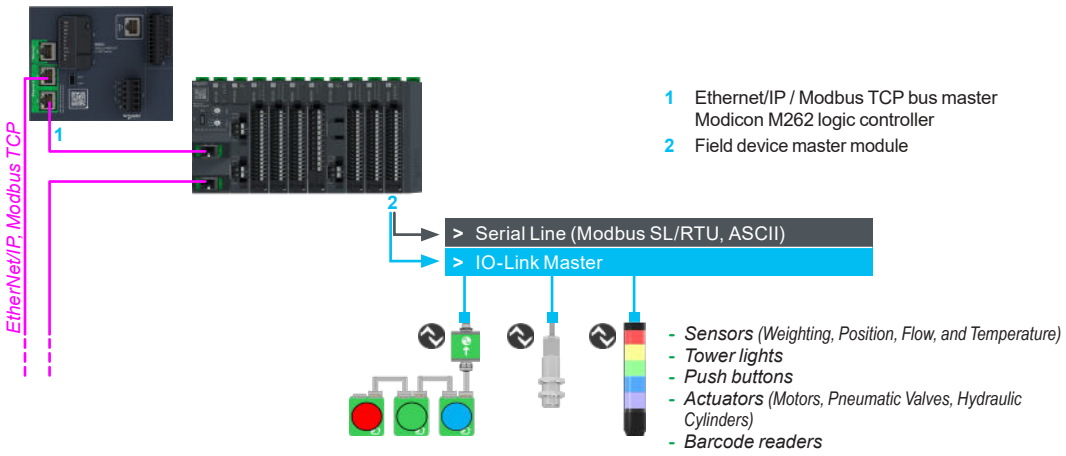
The future-ready I/O system for data aggregation

Field Device Master

Presentation

The Field Device Master kits (FDM kits) include an electronic module and its corresponding Base, which match in height and width.

- The electronic module provides the function: centralized communication interface for connecting field devices (sensors and actuators), in industrial automation systems.
- The FDM module enables efficient data exchange, Diagnostic, and configuration of field devices with those protocols:
  - Serial line RS-485, Modbus RTU, ASCII Client: the kit allows to initiate and control communication with other devices on the network, such as slave devices or other masters.
  - IO-Link Master: the kit allows to connect sensors and actuators to the Edge I/O NTS system in accordance with the IO-Link standard, and in conjunction with the EtherNet/IP network interface kit. It transforms the devices into real communicators, offering a wide range of functions with associated setting options and status information because of their communication capability.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of the FDM module through the backplane bus. The Base also provides fieldtest device power supply.



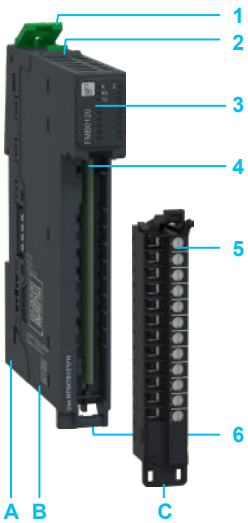
1 Ethernet/IP / Modbus TCP bus master Modicon M262 logic controller
2 Field device master module

Implementation

- Up to 4 IO-Link devices per channel (3/4 wires - Class A) can be installed in a configuration.
- The FDM kits use 1 slot (15 mm *(0.59 in)* width) on DIN rail.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered:
  - in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*
  - in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.



Description

A Field Device Master kit comprises a Base **A**, and an Electronic module **B**. The terminal block **C** is to order separately.

3 Mechanical clip for locking on DIN rail and modules between them
4 Release button for disengaging the module from the Base
5 Status LEDs:
- 1 LED (Green) module operating (RUN)
- 1 LED per channel (Green) channel diagnostic
- 1 LED (Red) module error (ERR)

6 Housing for the terminal block
7 Terminal block
8 Hinge for the terminal block installation

Modicon Edge I/O NTS
The future-ready I/O system for data aggregation
Field Device Master


NTSFMB0120K


NTSFMB0120HK


NTSFIO0400K


12 Pts–5 mm–DC/AC


18 Pts–3.81 mm–DC

References

Field device master kits (FDM module + Base)

Number of Channels	Protocol	Number of inputs and outputs	Synchronization (2)	Version	Reference	Weight kg/ lb
1	Serial RS-485, Modbus RTU, ASCII, Client, 115 kbps	1 Serial Line	–	Standard	NTSFMB0120K	0.077/ *0.169*
			–	Hardened	NTSFMB0120HK	0.077/ *0.169*
Up to 4	IO-Link Master	- Up to 4 discrete channels (configurable as input 24 VDC Sink or output 24 VDC Push-Pull 200 mA/ channel for C/Q output) - Up to 4 additional discrete input channels	**Yes**	Standard	NTSFIO0400K (1)	0.102/ *0.224*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 Pts–5 mm–DC	Spring	Without cover	NTSXTB12200H	0.029/*0.063*	*NTSFMB0120K, NTSFMB0120HK*
		With cover	NTSXTB12201H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12000H	0.048/*0.105*	
		With cover	NTSXTB12001H	0.058/*0.127*	
18 Pts–3.81 mm–DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSFIO0400K (1)*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) Available soon. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Passive (Common distribution, Dummy)

Function						
		Passive				
		Common Distribution kits for distributing electrical power			**Dummy kits: non-functional or simulated module that replicates the physical form and connection interface of a real module without performing any actual control or input/output functions**	
						
Number of Channels		**16 x 0 VDC commons**	**16 x 24 VDC commons**	**8 x 0 VDC commons** **8 x 24 VDC commons**	**1-slot**	**2-slot**
Protection type		–	- Overvoltage protection - Undervoltage protection - Overload protection - Short-circuit protection - Reverse polarity protection - Inrush current control - Power up limitation - PE Current	- Overvoltage protection - Undervoltage protection - Overload protection - Short-circuit protection - Reverse polarity protection - Inrush current control - Power up limitation - PE Current	–	–
Nominal operating current (Field)		10.5 A	10.5 A	10.5 A	–	–
Maximum power dissipation in W		0.587 W	1.348 W	1.428 W	–	–
Voltage range (supply voltage range)		0 Vdc	19.2...30.0 Vdc	19.2...30.0 Vdc	–	–
Current consumption	Max. bus current	3 mA	3 mA	3 mA	–	–
	Max. field current	0 mA	0 mA	0 mA	–	
Size	**Height**	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)
Operating temperature	**Standard version**	–	–	–	–	–
	Hardened version	-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*
Sold as a kit (Base + Functionnal module)	**Standard version**	–	–	–	–	–
	Hardened version	**NTSPCM0016HK**	**NTSPCM1600HK**	**NTSPCM0808HK**	**NTSDMY0100HK**	**NTSDMY0200HK**
See page		49				
Compatible terminal blocks	**Number of points-Pitch-Voltage**	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	–	–
	Number of terminal blocks to use	1	1	1	–	–
	Spring TB **Without cover**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	–	–
	With cover	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	–	–
	Screw TB **Without cover**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	–	–
	With cover	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	–	–

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Passive (Common distribution, Dummy)

Presentation

The passive kits include an electronic module and its corresponding Base, which match in height and width.

Common Distribution kits

- The Common distribution module provides the function: managing and distributing electrical power throughout the Edge I/O NTS system. As a centralized point for power distribution, it incorporates features such as circuit protection, monitoring, and control capabilities.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of the module through the Backplane bus. The Base also provides fieldtest device power supply.

Dummy kits

- The dummy module in Edge I/O NTS system involves configuring a placeholder module to mimic the behavior of a real module, without performing any real input or output functions. It is used for testing, development, or as a temporary placeholder in the absence of a real module. It can be configured to match the attributes of the real module, such as addressing, data format, and communication protocols.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of the module through the Backplane bus. The Base also provides fieldtest device power supply.

Implementation

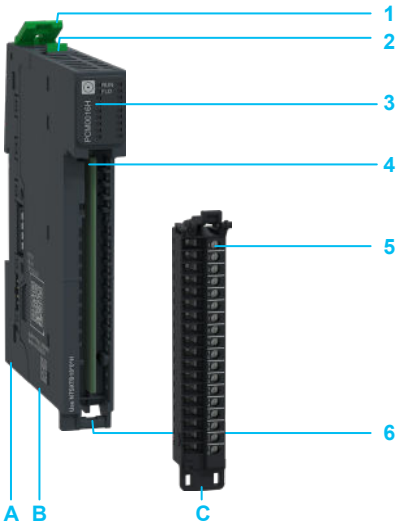
- The kits use 1 slot (15 mm width *(0.59 in)*)), or 2 slots (30 mm width *(1.18 in)*) on DIN rail, depending on the model.
- The Common distribution kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.

Description

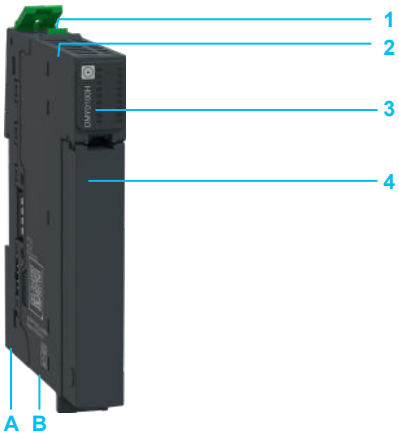
A Passive kit comprises a Base **A**, and an Electronic module **B**. The terminal block **C** is to order separately.



1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs:
- 1 LED (Green) RUN Logic supplied
- 1 LED (Green) FIELD power supply

4 Housing for the terminal block
5 Terminal block
6 Hinge for the terminal block installation

A Dummy kit comprises a Base **A**, and an Electronic module **B**.



1 Mechanical clip for locking on DIN rail and modules between them
2 Release button for disengaging the module from the Base
3 Status LEDs
- 1 LED (Green) BUS power supply
- 1 LED (Green) FIELD power supply

4 Cover

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Passive (Common distribution, Dummy)

NTSPCM0016HK

NTSPCM1600HK

NTSPCM0808HK

NTSDMY0100HK

NTSDMY0200HK

18 Pts–3.81 mm–DC

References

Passive kits (Passive module + Base)

Designation	Version	Reference	Weight kg/ *lb*
Common Distribution kits			
16 x 0 VDC commons	Hardened	NTSPCM0016HK	0.098/ *0.216*
16 x 24 VDC commons with one electronic fuse	Hardened	NTSPCM1600HK	0.100/ *0.220*
8 x 0 VDC commons **8 x 24 VDC commons** with one electronic fuse	Hardened	NTSPCM0808HK	0.100/ *0.220*
Dummy kits			
1-slot: 15 mm width *(0.59 in)*	Hardened	NTSDMY0100HK	0.100/ *0.220*
2-slot: 30 mm width *(1.18 in)*	Hardened	NTSDMY0200HK	0.142/ *0.313*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
18 Pts–3.81 mm–DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSPCM0016HK*, *NTSPCM1600HK*, *NTSPCM0808HK*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	*NTSPCM0016HK*, *NTSPCM1600HK*, *NTSPCM0808HK*
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Power supply

Function				
			Power supply	
			Distribution of Bus Power supply for Network Interface modules (NIM), and modules	**Distribution of Field Power in a cluster of modules**
				
Rated supply voltage			24 VDC	24 VDC
Power supply output current			3.5 A for Bus supply 10.5 A for Field supply	10.5 A for Field supply
Voltage range			19.2…30 VAC	19.2…30 VAC
Input current			3.5 A for Bus supply 10.5 A for Field supply	10.5 A for Field supply
Maximum power dissipation in W			1.562 W	1.314 W
Protection type			- Overvoltage protection for bus and field - Undervoltage protection for bus and field - Overload protection for bus and field - Short-circuit protection for bus and field - Reverse polarity protection for bus and field - Inrush current control for field - Voltage surge protection for bus & field - Short power cut for bus	- Overvoltage protection for field - Undervoltage protection for field - Overload protection for field - Short-circuit protection for field - Reverse polarity protection for field - Inrush current control for field - Voltage surge protection for field
Current consumption			- Max. bus current 3500 mA - Max. field current 10500 mA	- Max. bus current 3 mA - Max. field current 10500 mA
Automatic disjunction			–	**Yes**
Hot swapping			**Yes**	**Yes**
Size	**Height**		100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width		15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)
Operating temperature	**Standard version**		–	–
	Hardened version		-40 to +70°C *(-40 to +158°F)*	-40 to +70°C *(-40 to +158°F)*
Sold as a kit (Base + Functionnal module)	**Standard version**		–	–
	Hardened version		**NTSPFB1002HK**	**NTSPFD1002HK**
See page			53	
Compatible terminal blocks	**Number of points-Pitch-Voltage**		2 Pts–5 mm–DC	2 Pts–5 mm–DC
	Number of terminal blocks to use		2	1
	Spring TB	**Without cover**	**NTSXTB02230H**	**NTSXTB02230H**
	Screw TB	**Without cover**	**NTSXTB02030H**	**NTSXTB02030H**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Power supply

Presentation

The Power supply kits include an electronic module and its corresponding Base, which match in height and width.

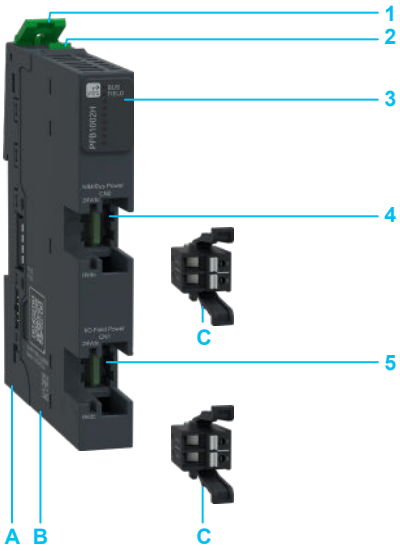
- The power supply module provides the functions:
  - Supplying the necessary electrical power to the I/O modules and the Network interface modules within the system, ensuring they operate reliably and consistently.
  - Helping to maintain stable and regulated power distribution to all connected modules, contributing to the overall functionality and performance of the I/O system.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of the module through the Backplane bus. The Base also provides fieldtest device power supply.

Implementation

- The kits use 1 slot (15 mm *(0.59 in)* width) on DIN rail.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommanded for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- Hot swapping capability: replacing or adding components without having to power down or interrupt the system's operation.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.



Description

A power supply kit comprises a Base **A**, and an Electronic module **B**. The terminal blocks **C** are to order separately *(1)*.

1 Mechanical clip for locking on DIN rail and modules between them

2 Release button for disengaging the module from the Base

3 Status LEDs:
- 1 LED (Green): BUS power supply / RUN Logic supplied (depending on the model)
- 1 LED (Green): FIELD power supply

4 Housing for the terminal block (Bus connector)

5 Housing for the terminal block (Field connector)

(1) The power supply kit request one or two terminal blocks. depending on the power supply model)

Modicon Edge I/O NTS
The future-ready I/O system for data aggregation
Power supply

NTSPFD1002HK

NTSPFB1002HK

NTSXTB02230H

NTSXTB02030H

References

Power supply kits (Power supply module + Base)

Rated supply voltage	Use	Version	Reference	Weight kg/ *lb*
24 VDC	Distributes Bus power supply for Network Interface modules (NIM), and modules - 3.5 A for Bus supply - 10.5 A for Field supply - Mandatory module after a NIM or an extender - Includes all functions of Device power supply	Hardened	NTSPFB1002HK	0.104/ *0.229*
	Distributes Field Power supply in a cluster of modules - 10.5 A for Field supply - Automatic disjunction - Can be added when more than 10 A is required or to manage several segments	Hardened	NTSPFD1002HK	0.104/ *0.229*

Terminal blocks

Number of points-Pitch-Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
2 Pts–5 mm–DC	Spring	Without cover	NTSXTB02230H	0.008/*0.017*	*NTSPFD1002HK*, *NTSPFB1002HK (1)*
	Screw	Without cover	NTSXTB02030H	0.011/ *0.024*	

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ... See pages 60 to 63

(1) This kit requests two terminal blocks.

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Network interface

Function		Network interface for Data exchange between master PLC and Modicon Edge I/O islands	
			
Bus or network	Type	■ EtherNet/IP ■ Modbus TCP ■ USB 2.0 (HTTPs and RNDIS)	■ Sercos III
Structure	Exchange mode	Full duplex Autonegotiation	
	Transmission rate	10/100 Mbit/s	
	Medium	Twisted pair cable	
	Cable length	100 m *(328.08 ft)* (10Base-T/100Base-TX)	
Topology		- Daisy chain - Star - Ring (using RSTP)	
Protocol		- EtherNet/IP (adaptor) - Modbus TCP (server)	
web server		Embedded	
Communication features	Security	- Secure Boot - Secure Storage (via TPM) - SCEP Client (pending) - CAE Support - Secure Syslog Server (pending) - TLS 1.2 - Embedded TPM	
	Plug and Work	- DPWS - Configuration - Web Server - FDR Client - BootP - DHCP Client	
	Communication	- IPV4 - EtherNet/IP Server - Modbus TCP Server - OPCUA Server (explicit only)	
	Diagnostics	- SNMP (pending) - Craslog	
	Time	NTP V4	
	Network	- RSTP - Static VLAN Configuration - QoS	
	Other	USB RNDIS	
Configuration	Nb of addressable I/O kits	Up to 32 kits per cluster	
	Number of I/O modules per island	Up to 250 kits per island *(1)*	
	Cyber security	Embedded with a configurable level (rotary switch)	
	Power supply type	24 VDC not isolated (19.2…30 V) Powered by Internal bus power via NTSPFB* Power Supply Module from a 24 Vdc bus connector	
Connector type	Bus or network port	2 RJ45 switched Ethernet isolated ports	
	Configuration firmware	USB type-C port (CN1) to of the island	
Size	Height	100 mm *(3.93 in)*	
	Width	15 mm *(0.59 in)* (1 slot) (Standard version), 30 mm *(1.18 in)* (2 slots) (Hardened version)	
Operating temperature	Standard version	-20 to +60°C *(-4 to +140°F)*	
	Hardened version	-40 to +70°C *(-40 to +158°F)*	
Sold as a kit (Base + Functionnal module)	Standard version	**NTSNEC1200K**	**Planned commercialization**
	Hardened version	**NTSNEC1200HK**	**Planned commercialization**
See page		57	

Modicon Edge I/O NTS

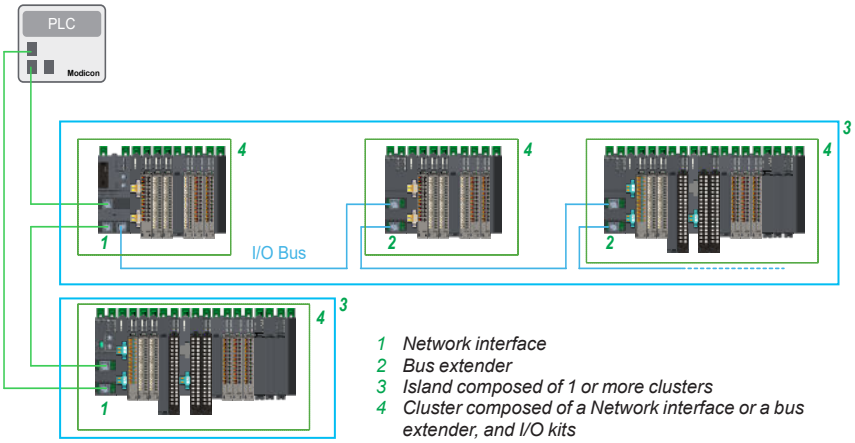
The future-ready I/O system for data aggregation

Network interface

Presentation

The network interface kits include an electronic module and its corresponding Base, which match in height and width.

- The network interface module (NIM) (bus coupler) ensures communication between the NTS Edge I/O system, composed in islands, and the Ethernet/IP, Modbus TCP and Sercos III *(1)* networks. It is completed by a bus expansion module to extend the islands with clusters.
- The network interface module facilitates data exchange between the NTS Edge I/O system, composed of islands, and the networks (Ethernet/IP, Modbus TCP, and Sercos III protocols. It allows the I/O system to send and receive data for monitoring, control, and coordination purposes. It is complemented by bus expansion modules to extend the islands with new clusters.
- The Base ensures the mounting on the Din rail, the transmission of data and the supply of the module through the Backplane bus. The Base also provides fieldtest device power supply.



1 Network interface
2 Bus extender
3 Island composed of 1 or more clusters
4 Cluster composed of a Network interface or a bus extender, and I/O kits

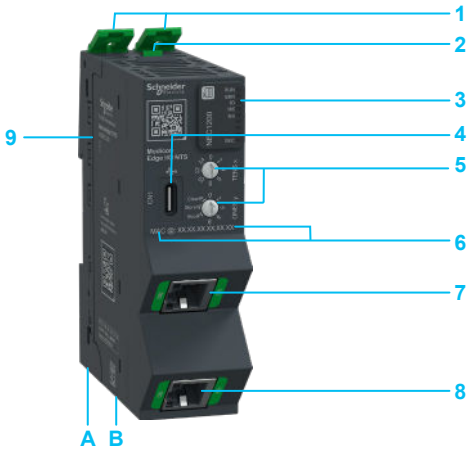
Implementation

- The network interface occupies the first two or three slots of a cluster.
- The Network interface kits use 2 slots (30 mm *(1.18 in)* width) on DIN rail, or 3 slots 45 mm *(1.57 in)* on DIN rail.

Characteristics

- The kits are offered:
  - in Standard version with an operating temperature of -20 to +60°C *(-4 to +140°F)*
  - in Hardened version with an operating temperature of -40 to +70°C *(-40 to +158°F)*. The hardened version can operates as the standard version.
- IP degree of protection is IP20. A conformal coating is applied to the Hardened versions.

Description



A network interface kit comprises a Base **A**, and an Electronic module **B**.

5 Mechanical clip for locking on DIN rail and modules between them
6 Release button for disengaging the module from the Base
7 Status LEDs, to indicate the operational status of the island
8 USB type-C port (CN1) to configure and upgrade firmware of the island
9 2 Rotary switches to set the network interface module IP address
10 Label space to write the assigned IP address (this unique 48-bit network identifier is hard-coded into the module when it is manufactured)
11 Communication port 1 (RJ45 type) to connect the network interface module to the network
12 Communication port 2 (RJ45 type) to connect the network interface module to the network
13 Cyber security rotary switch to set the cyber security mode (on the back side of the Base)

(1) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Network interface

NTSNEC1200K

NTSNEC1200HK

References

Network interface kits (Network Interface module + Base)

Network	Designation	Communication port	Data transfer speed	Dangerous voltage	Version	Reference	Weight kg/ *lb*
■ EtherNet/IP ■ Modbus TCP ■ USB 2.0 (HTTPs and RNDIS)	Network Interface Module + Base + Termination	2x RJ45	100 Mbps	–	Standard	**NTSNEC1200K**	0.275/ *0.606*
		2x RJ45	100 Mbps	–	Hardened	**NTSNEC1200HK**	0.324/ *0.715*

Accessories

Mounting accessories, Labels, Shielding accessories, and Cluster Termination	See page 59

Spare parts

Spare parts for replacement: Functional modules, Bases, Terminal blocks, ...	See pages 60 to 63

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Terminal blocks

Terminal blocks

12 terminals for 100 mm *(3.93 in)* high module	Using DC				Using AC or Higher DC voltage			
	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)
Screw terminal reference	 NTSXTB12000H	0.048/*0.105*	 NTSXTB12001H	0.058/*0.127*	 NTSXTB12010H	0.048/*0.105*	 NTSXTB12011H	0.058/*0.127*
Spring terminal reference	 NTSXTB12200H	0.029/*0.063*	 NTSXTB12201H	0.040/*0.088*	 NTSXTB12210H	0.029/*0.063*	 NTSXTB12211H	0.040/*0.088*

18 terminals for 100 mm *(3.93 in)* high module	Using DC			
	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)
Screw terminal reference	 NTSXTB18000H	0.039/*0.085*	 NTSXTB18001H	0.049/*0.108*
Spring terminal reference	 NTSXTB18200H	0.028/*0.061*	 NTSXTB18201H	0.038/*0.083*

18 terminals for 121 mm *(4.76 in)* high module	Using DC			
	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)
Screw terminal reference	 NTSXTB18000XH	0.064/*0.141*	 NTSXTB18001XH	0.077/*0.169*
Spring terminal reference	 NTSXTB18200XH	0.038/*0.083*	 NTSXTB18201XH	0.050/*0.110*

2 terminals for power supply module	Without cover	Weight (kg/*lb*)
Screw terminal reference	 NTSXTB02030H	0.011/ *0.024*
Spring terminal reference	 NTSXTB02230H	0.008/*0.017*

Cover for Terminal blocks

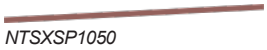
Use for	Sold in a set of	Reference	Weight kg/*lb*
12 Pts–5 mm pitch or 18 Pts–3,81 mm pitch	Set of 15 Units	NTSXEM0000H	0.152/*0.335*
18 Pts–5 mm pitch	Set of 13 Units	NTSXEM0000XH	0.173/*0.381*

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Accessories

NTSXSP0000



NTSXSP1050

NTSXSP1100

NTSXSP3020

NTSXSP3010

NTSXMP2000

x10

NTSXMP1000

NTSXMP0000H

Mounting accessories

Designation			Sold in a set of	Reference	Weight kg/ *lb*
Kit: 2x Lateral arms and 2x DIN rail end-stoppers	Need 1 metal drawbar NTSX-SP1●●● and clamping rings NTSXSP30●0		5 units	NTSXSP0000	–
Metal drawbar	0.5 m *(1.64 ft)*		10 units	NTSXSP1050	–
	1 m *(3.28 ft)*		10 units	NTSXSP1100	–
Clamping rings	To be mounted on the metal drawbar	10 to 7 AWG	20 units	NTSXSP3020	–
		16 to 10 AWG	20 units	NTSXSP3010	–
Label for modules 14 x 10 mm *(0.04 x 0.03 in)*	To be fixed on top of the module		50 Units	NTSXMP2000	0.029/ *0.063*
Wheel of 8 flexible coding keys			10 Units	NTSXMP1000	0.016/ *0.035*
Cluster Termination			–	NTSXMP0000H	0.039/ *0.085*

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Spare parts: modules and associated bases


1-slot
100 mm high


121 mm high


2-slot
100 mm high


121 mm high

Discrete modules, associated Base

Discrete input modules

Number of Channels			Dangerous voltage	Wiring mode	Synchroniza-tion (2)	Version	Reference	Weight kg/ lb	Associated Base
Number	Signal type	Range							
2 (isolated)	Sink	100 V to 240 VAC	Yes	1-2-3 wire	–	Hardened	NTSDAI0215H	0.050/ 0.110	NTSXBA0100H (1-slot)
4	Sink	100 V to 1200 VAC	Yes	1-2 wire	–	Hardened	NTSDAI0404H		
	Sink	24 VDC , 48 VAC/DC	Yes	1-2-3 wire	–	Hardened	NTSDAI0403H		
	Sink	24 VDC,	–	1-2-3 wire	Yes	Standard	NTSDDI0402		
	Sink	24 VDC	–	1-2-3 wire	Yes	Hardened	NTSDDI0402H		
6	Sink	24 VDC	–	1-2-3 wire	Yes	Standard	NTSDDI0602		
8	Sink	24 VDC	–	1-2 wire	–	Standard	NTSDDI0802X	0.051/ 0.112	
	Sink	100 V to 1200 VAC	Yes	1-wire	–	Standard	NTSDAI0804	0.050/ 0.110	
16	Sink	24 VDC	–	1-wire	Yes	Standard	NTSDDI1602 (1)		
	Source	24 VDC	–	1-wire	Yes	Standard	NTSDDI1642		
	Sink	24 VDC	–	1-2-3 wire	–	Standard	NTSDDI1602X (1)	0.089/ 0.196	NTSXBA0200H (2-slot)
	Sink	24 VDC	–	1-2-3 wire	–	Hardened	NTSDDI1602XH (1)		

Discrete output modules

2 (isolated, protected)	Transistor Source	24 VDC 2 A/channel	–	1-2-3 wire	Yes	Hardened	NTSDDO0212H (1)	0.050/ 0.110	NTSXBA0100H (1-slot)
2 (isolated)	Relay	NO/NC, 5 V to 125 VDC, 24 V to 240 VAC 2 A/channel	Yes		–	Standard	NTSDRC0215		
2	Triac	100 V to 240 VAC 1 A/channel	Yes	1-2-3 wire	–	Standard	NTSDAO0205		
4 (isolated)	Triac	100 V to 240 VAC 2 A/channel	Yes	1-2-3 wire	–	Standard	NTSDAO0415	0.089/ 0.196	NTSXBA0200H (2-slot)
			Yes	1-2-3 wire	–	Hardened	NTSDAO0415H	0.083/ 0.182	
	Relay	NO/NC, 5 V to 125 VDC, 24 V to 240 VAC 5 A/channel	Yes	–	–	Standard	NTSDRC0415		
			Yes	–	–	Hardened	NTSDRC0415H		
4 (protected)	Transistor Source	24 VDC 500 mA/channel	–	1-2-3 wire	Yes	Standard	NTSDDO0402	0.050/ 0.110	NTSXBA0100H (1-slot)
			–	1-2-3 wire	Yes	Hardened	NTSDDO0402H		
6 (protected)	Transistor Source	24 VDC 500 mA/channel,	–	1-2-3 wire	Yes	Standard	NTSDDO0602		
6 (isolated)	Relay	NO, 5 V to 125 VDC, 24 V to 240 VAC 2 A/channel	Yes	—	–	Standard	NTSDRA0615	0.083/ 0.182	NTSXBA0200H (2-slot)
8 (protected)	Transistor Source	24 VDC 500 mA/channel	–	1-2 wire	–	Standard	NTSDDO0802X (1)	0.051/ 0.112	NTSXBA0100H (1-slot)
		24 VDC 2 A/channel	–	1-wire	Yes	Standard	NTSDDO0802	0.050/ 0.110	
16 (protected)	Transistor Source	24 VDC 500 mA/channel	–	1-wire	Yes	Standard	NTSDDO1602 (1)		
			–	1-2 wire	–	Standard	NTSDDO1602XA (3)	0.083/ 0.182	NTSXBA0200H (2-slot)
			–	1-2 wire	–	Hardened	NTSDDO1602XAH (3)		
			–	1-2 wire	–	Standard	NTSDDO1602X	0.089/ 0.196	
			–	1-2 wire	–	Hardened	NTSDDO1602XH		

(1) Available soon. (2) Planned commercialization. (3)This kit requests an External power supply source.

Note: *The terminal block reference for use with the module is written on the front of the module.*

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Spare parts: modules and associated bases

Analog modules, associated Base

Analog input modules

Number of Channels			Dangerous voltage	Wiring mode	Synchroniza-tion (2)	Version	Reference	Weight kg/ lb	Associated Base
Number	Signal type	Method							
2 (isolated)	Current, Voltage	HART Tolerance, Loop power	–	2-3-4-wire	Yes	Standard	**NTSAMI0210** *(1)*	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
	Temperature	RTD, Thermocouple, mV,	–	2-3-4 wire	–	Standard	**NTSART0214**		
	Temperature	RTD, Thermocouple, mV	–	2-3-4-wire	–	Hardened	**NTSART0214H**		
2 (isolated)	Current, Voltage	HART Tolerance, Loop power	–	2-3-4-wire	Yes	Hardened	**NTSAMI0210H** *(1)*	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
4 (isolated)	Current	HART Communication, Loop power	–	2-wire	–	Hardened	**NTSAHI0412XH**	0.089/ *0.196*	
4	Current, Voltage	–	–	2-wire	Yes	Standard	**NTSAMI0400**	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
	Current, Voltage	Differential	–	2-wire	Yes	Standard	**NTSAMI0420**		
4 (Differential)	Temperature	RTD, Thermocouple, mV	–	2-3-wire	–	Standard	**NTSART0404**		
	Temperature	RTD, Thermocouple, mV	–	2-3-4 wire	–	Hardened	**NTSART0404XH**	0.051/ *0.112*	
6 (Differential)	Temperature	RTD, Thermistor	–	2-3-wire	–	Standard	**NTSART0603**	0.050/ *0.110*	
8	Current	HART Tolerance, Loop power	–	1-2-wire	–	Standard	**NTSACI0802X**	0.089/ *0.196*	*NTSXBA0200H (2-slot)*
	Current	HART Tolerance, Loop power	–	1-2-wire	–	Hardened	**NTSACI0802XH**		
	Current, Voltage	–	–	2-wire	Yes	Standard	**NTSAMI0800**	0.050/ *0.110*	*NTSXBA0100H (1-slot)*

Analog output modules

2 (isolated)	Current	HART Communication	–	2-wire	–	Hardened	**NTSAHO0212H**	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
2 (isolated)	Current, Voltage	–	–	2-wire	Yes	Standard	**NTSAMO0210**	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
	Current, Voltage	–	–	2-wire	–	Hardened	**NTSAMO0210H**		
4	Current, Voltage	–	–	2-wire	Yes	Standard	**NTSAMO0400**		
	Current, Voltage	–	–	2-wire	–	Hardened	**NTSAMO0400H**		

Analog Input/Output Module

4 inputs **2** outputs (Group isolated)	Current, Voltage	HART Tolerance for the outputs	–	2-wire	Yes	Standard	**NTSAMM0600** *(1)*	0.050/ *0.110*	*NTSXBA0100H (1-slot)*

High Speed Counter modules, associated Base

Number of Channels	Discrete inputs	Discrete outputs	Dangerous voltage	Wiring mode	Synchroniza-tion	Version	Reference	Weight kg/ lb	Associated Base
1 incremental 250 kHz (4 inputs)	2 auxiliary inputs 24 VDC	–	–	–	Yes	Standard	**NTSEHC0100**	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
2 incremental 250 kHz (8 inputs)	4 auxiliary inputs 24 VDC	8 auxiliary outputs 24 VDC 500 mA/ch	–	–	Yes	Standard	**NTSEHC0220**	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
1 incremental 250 kHz (4 inputs)	2 auxiliary inputs 24 VDC	4 auxiliary outputs 24 VDC 500 mA/ch	–	–	Yes	Hardened	**NTSEHC0120H**		

(1) Available soon. (2) Planned commercialization. (3)This kit requests an External power supply source.
Note: *The terminal block reference for use with the module is written on the front of the module.*

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Spare parts: modules and associated bases

1-slot

100 mm high

Counting modules and associated bases

Number of Channels	Type	Discrete inputs	Discrete outputs	Synchronization (2)	Version	Reference	Weight kg/ lb	Associated Base
1	High Speed Counter Module, 1 Incremental In, 24V DC, 250kHz,	2 auxiliary inputs, 24 VDC	-	Yes	Standard	NTSEHC0100	0.050/ 0.110	NTSXBA0100H (1-slot)
2	High Speed Counter Module, 2 Incremental In, 24V DC, 250kHz	8 auxiliary inputs, 24 VDC	8 auxiliary outputs, 24 VDC 500 mA/ch	Yes	Standard	NTSEHC0220	0.083/ 0.182	NTSXBA0200H (2-slot)
1	High Speed Counter Module, 1 Incremental In, 24V DC, 250kHz	2 auxiliary inputs, 24 VDC	4 auxiliary outputs, 24 VDC 500 mA/ch	Yes	Hardened	NTSEHC0120H	0.083/ 0.182	

2-slot

100 mm high

Field device master modules and associated bases

Number of Channels	Communication protocol	Version	Reference	Weight kg/ lb	Associated Base
1	**Serial RS-485, Modbus RTU, ASCII, Client, 115 kbps**	Standard	NTSFMB0120	0.050/ 0.110	NTSXBA0100H (1-slot)
		Hardened	NTSFMB0120H		
Up to 4	**IO-Link Master** With discrete channels configurable as input or output	Standard	NTSFIO0400 (1)		

Passive modules and associated bases

Designation		Version	Reference	Weight kg/ lb	Associated base
Common distribution modules	16x 0 VDC commons	Hardened	NTSPCM0016H	0.050/ 0.110	NTSXBA0100H (1-slot)
	16x 24 VDC commons (2)	Hardened	NTSPCM1600H		
	8x 0 VDC commons, 8x 24 VDC commons (2)	Hardened	NTSPCM0808H		
Dummy modules	1-slot: 15 mm width (0.59 in)	Hardened	NTSDMY0100H		
	2-slot: 30 mm width (1.18 in)	Hardened	NTSDMY0200H	0.083/ 0.182	NTSXBA0200H (2-slot)

3-slot

100 mm high

Power supply modules and associated bases

Input voltage	Use	Version	Reference	Weight kg/ lb	Associated base
24 VDC	Distributes Bus Power supply for Network Interface modules (NIM), and modules	Hardened	NTSPFB1002H	0.050/ 0.110	NTSXBA0104H (1-slot)
	Distributes Field power supply for a segment of module (4-20 mA, DO, +24 VDC, ...), 10 A max.	Hardened	NTSPFD1002H	0.050/ 0.110	NTSXBA0103H (1-slot)

Network interface modules and associated bases

Network	Communication port	Data transfer speed	Version	Reference	Weight kg/ lb	Associated base
EtherNet/IP, Modbus TCP	2x RJ45	100 Mbps	Standard	NTSNEC1200	0.275/ 0.606	NTSXBA0201H (2-slot)
	2x RJ45	100 Mbps	Hardened	NTSNEC1200H	0.324/ 0.714	NTSXBA0301H (3-slot)

(1) Available soon. (2) Equipped with one electronic fuse.

Note: *The terminal block reference for use with the module is written on the front of the module.*

On Line Help

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Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Spare parts: modules and associated bases


NTSXBA0100H


NTSXBA0103H


NTSXBA0104H


NTSXBA0200H


NTSXBA0201H


NTSXBA0301H

Bases for modules

Use for module type	Number of slot on DIN rail (corresponding to the module width)	Version	Reference	Weight kg/ *lb*
- Discrete - Analog - Counting - Motion/Expert *(2)* - Field Device Master - Passive (Common, Dummy)	1-slot (15 mm width module)	Hardened	NTSXBA0100H	0.026/ *0.057*
	2-slot (30 mm width module)	Hardened	NTSXBA0200H	0.048/ *0.105*
- Power Supply (Bus and Field)	1-slot (15 mm width module)	Hardened	NTSXBA0103H	0.026/ *0.057*
- Power Supply (Field)	1-slot (15 mm width module)	Hardened	NTSXBA0104H	0.026/ *0.057*
- Network Interface Module - Bus Extender module	2-slot (30 mm width module)	Hardened	NTSXBA0201H	0.048/ *0.105*
	3-slot (45 mm width module)	Hardened	NTSXBA0301H	0.057/ *0.125*

(1) Planned commercialization.

Note: *The terminal block reference for use with the module is written on the front of the module.*

On Line Help

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation

Product reference index

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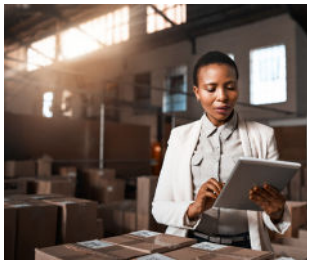

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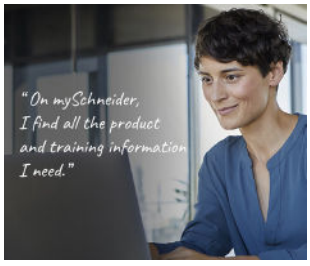

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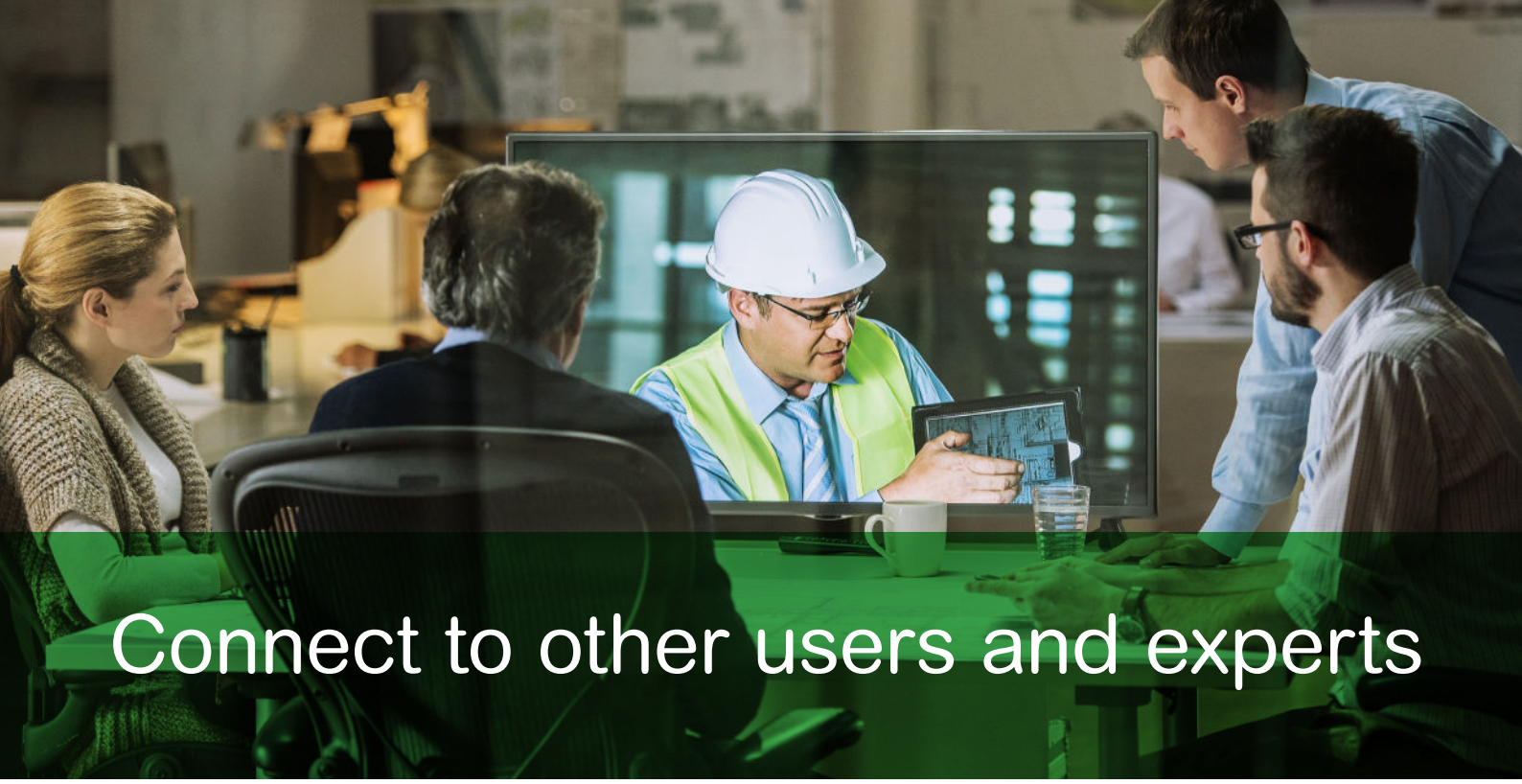

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