

Heavy-Duty and Explosion Proof Signalings

CATALOG 2025



Signal Tower Lights

Signal Beacons and Sounders

Heavy-Duty and Explosion Proof Signalings

Warning Light Bars

Aviation Obstruction Lights

Smart Factory Product

Industrial LED Lights

Performance Line - E Series

Qlight

Gives you a
Brighter
Future

Qlight Gives You a Brighter Future!

Qlight has been contributed to an industrial safety and efficiency by producing several audible/ visual signaling devices and industrial LED lights since its establishment in 1986. Our technology and quality are highly reputable among various industries for example semiconductor manufacturing equipment, automobile industry, unmanned automation facility, steel production facility, shipbuilding industry, offshore plant, specialized unit for petrochemical industry based on diverse technology patents and core technologies such as LED light source, heat radiation technology, explosion proof design. Our established local corporations in South Korea and China, sales branches in the United States, Japan, Vietnam, and a global service network provides a distribution and sales system servicing over 80 countries that help Qlight reinforces industrial fields all over the world.



Qlight is a representative of signaling device in Korea.

Qlight has been striving to accomplish our mission to provide visual and audible status indicating systems and solutions to enhance our customer's work safety and efficiency for the last three decades.
As a market leader, Qlight is going to accomplish our responsibility by introducing state of the art equipment and unmanned facilities.

1986 - 1995

Business foundation and consolidation

- 1986 Established Qlight
- 1993 Nominated for developing domestic explosion proof warning lights by Korean Ministry of Science & Technology

1996 - 2005

Growing as a signal transmission device specialist

- 2001 Established Shanghai Qlight Electronic Co., Ltd. in China



- 2004 ISO 9001:2000 certificates acquired

2006 - 2017

Mission device specialist A great leap forward & business reconstruction

- 2010 Established R&D Center
- 2011 Selected as a venture company
- 2011 Selected as an INNO-BIZ firm which is an innovative tech company
- 2014 Selected as a promising export company by Small and Medium Business Administration(SMBA)
- 2014 Established the Qlight USA, Inc. in San Jose, CA.
- 2016 The second headquarter factory built



History of Change & Innovation

2018 to Present

New engines for growth

2019 Established Qidong factory



2019 Selected as a family friendly
company by Ministry of
Gender Equality and Family

2020 Selected as a small giants
company by Small and
Medium Business Admin-
istration(SMBA)

2021 Selected as a youth-friendly
small giants company

2023 Selected as the best reading
management company
by the Ministry of Culture,
Sports and Tourism of Korea

The 2nd growth and globalization

Qlight, the best professional company

Leading the **improvement of industrial efficiency**

1 Aiming for the first-class

Aiming for the first-class specialized company to contribute industrial efficiency and safety of customer based on the core competency of System, Variety, and Hi-quality

35 Continuous growth for about 35 years

Based on a partnership-oriented corporate culture and sharing management, we have grown continuously for 35 years since our founding and are recognized for our quality and technology.

80 Global networks in 80 countries

Exporting to all over the world through global network spanning over 200 distribution channels in 80 countries and brightening industrial sites around the world

450 Multi-variety production

Satisfying various needs of customers through systematic customer-customized production system for over 450 products

Quick

Prompt customer satisfaction and real time enterprise(RTE)

Quality

Emphasis on product and service quality, workplace innovation and ethical management

Question

Problem oriented thinking and creative problem solving are based on achieving strategic task.

Qualified

The most suitable company that leads the innovation of signaling device technology and industrial efficiency improvement



Core Competency



System

Delicate mechanism of the work realizes shorter lead time by effectively managing over-all procedures such as purchasing, production, stock management, and distribution.



Broad-line

Customers are highly satisfied with Qlight products because we offer over 450 types of wide variety of product family with a systematic customized production system.



Supreme Quality

Qlight's technological capability and supremacy of quality are being recognized because of our strict technology standard and inspection system. We've obtained over 22 certificates such as IECEx, ATEX, NEPSI, CCS, CE, and UL. We've been expanding it in accordance with industrial demands.

How Qlight works





SELECTION OF WARNING LIGHT

The selection of signaling devices will depend on the particular situation and environment.

- Whether the location of installation is dark or bright.
- Whether the signal transmission range should be short or long, or should have good visibility.
- Whether you need an economical but short lifetime product or upscale product with longer lifetime.
- Whether the environment is harsh with vibration and shock, or the environment is stable so that the life of the lights can be guaranteed.
- Whether it hugely or lightly affects ongoing task and safety when light source(bulb) of beacon is damaged at once.

01

Purpose

FACTORS TO CONSIDER IN SIGNAL SELECTION

01

Purpose



02

Signal
transmission



03

Environment



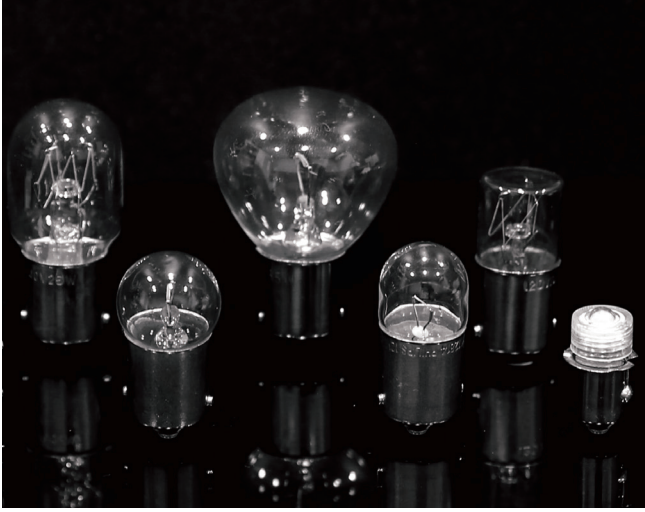
04

Budget



05

Ease of
maintenance



TYPE OF LIGHT SOURCE

Bulb

Light bulb is a light source that uses temperature reflection generated by the current flowing through the light bulb filament (thin line of metal), tungsten wire coil filament is often used. The hot filament is protected from oxidation with a glass sphere injected with inert gas (Argon gas, etc.). Typical characteristics of the gas injected bulb is described below.

1. When operating voltage is 10% lower than bulb's rated voltage, lifespan of product is quadrupled and power consumption is reduced to 85%.
2. On the contrary, when the operating voltage rises by 10%, lifespan of product becomes extremely short by 30% compared to the standard lifespan of a standard bulb (approx. 1,000 to 1,500 hours), and the power consumption rises by 16%. On the other hand, the brightness increases by 40%.

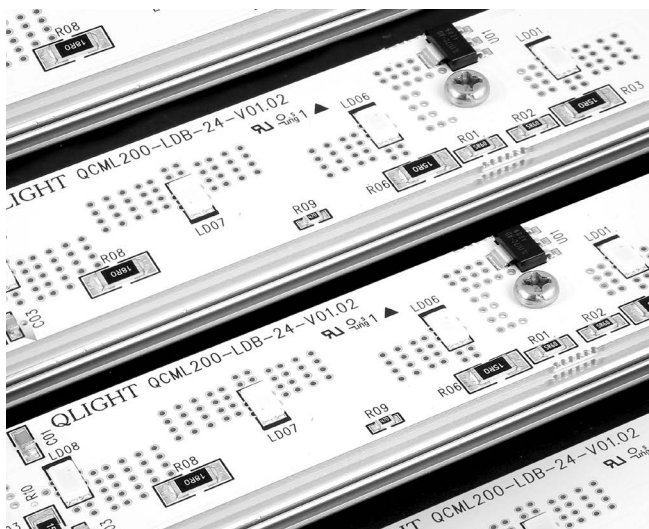
LED

The LED is a light emitting diode which emits light by injecting a current in the PN junction of the special semiconductor, semiconductors such as GaAs, GaP that Maximizes the electro-optical conversion effects are used. Like other semiconductors, over-voltage or ambient temperature affects the lifetime, but due to the absence of mechanical abrasion of the part, LED is shock/ vibration resistant so there is no need for proper seismic design. The standard service life of an LED is about 50,000 hours.

Xenon Lamp

Xenon lamp is a flash type light source that emits bright light instantly by inserting high energy into the lamp. Compared with the steady type lamp, xenon lamps need a lot of input power instantly and a extremely large amount of light it is diffused.

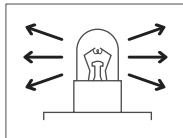
The lamp is filled with xenon(Xe) gas due to the convenience of the production(choice of materials), its use, xenon lamp was named after the xenon gas that it uses. xenon lamps are also resistant to vibration due to its mounting method. In addition, it is visible even in bright environments not only because the spectacle distribution of the visible light is close to the sunlight, it uses the same method as the strobe of the camera.



Warning Light/Indicator Light Operating Principle

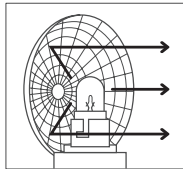
SELECTION OF WARNING LIGHT

The selection of signaling devices will depend on the particular situation and environment.



Bulb Steady/Flashing Type

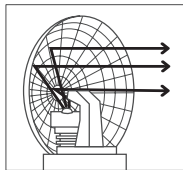
Highly diffusible light bulb that refracts light through a special lens and can be used in a steady or flashing state



Bulb Revolving Type

By combining a highly diffusible light bulb and a reflector, light is reflected in a parallel beam with a rotating cycle

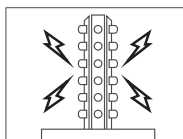
Our bulb revolving model has a long lifetime enabled by using a high durability bulb and a power transfer system that minimizes noise and abrasion



LED Revolving Type

The combination of an LED and a reflector creates a parallel light beam with a rotating cycle

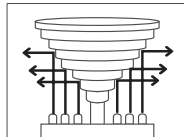
LED Rotating model with reflector adopts a special light distribution and multiple reflection system that is obtained a patent by Qlight can emit the light intensively and evenly as same as a bulb rotating type with reflector. (Patent No.: 10-0889803, 10-0808669 and 20-2008-0002489)



LED Strobe-Type

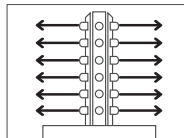
By shortening the LED flashing period and supplying the maximum current to the LED, It produces a flash effect just like the xenon lamp



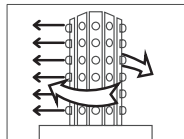


LED Steady/Flashing Type

The indirect light distribution system uses a special structure to radiate a uniform light signal throughout the entire body of the lens by using a multi-stage reflector

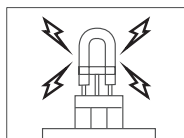


The direct light distribution system uses a high-intensity LED light and diffusion lens to transfer signal over a long distance. Qlight LED lights / flashing lights are equipped with two structures depending on the model type, Steady or Flashing Type



LED Simulated Revolving Type

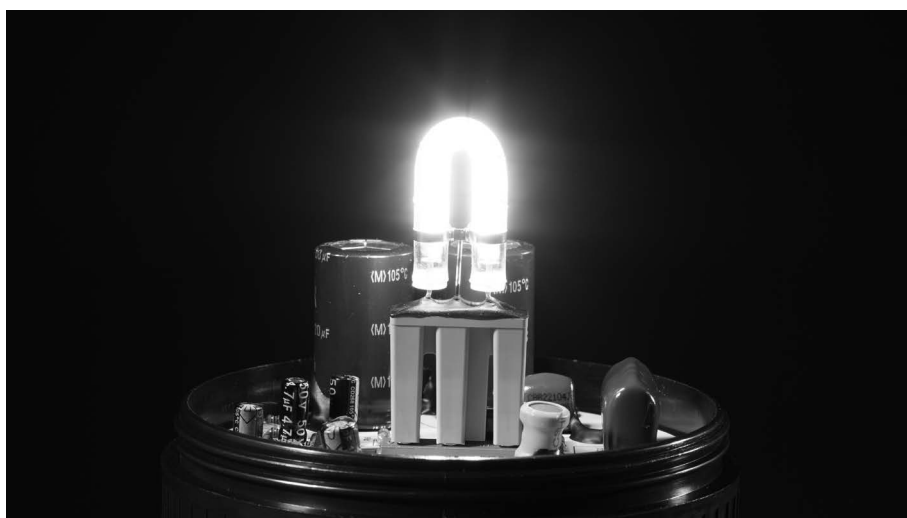
By uniformly arranging the LED lens in a 360 degree circumferential direction, it will produce a flash in a regular rotating sequence. The visual effect looks just the same as the revolving model



Xenon Lamp Strobe-Type

An intensive flashing light emitting model with short term energy consumption that can highly attract worker's attention. Better shock resistance than a conventional bulb and weaker than LED.

Since it adopts intensive xenon lamp light emitting into lens design, it can emit intensive signal light in all directions of the lens.















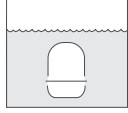



Waterproof and Dustproof Protection Structure

Comparing waterproof & dustproof protection structure

IP rating _ Known as "Ingress Protection rating" indicated in two-digit code showing the amount of protection against solid and the liquid(IEC60529)

IP 6 7

First Number Protection against solid		Second Number Protection against liquid	
0	 No protection	0	 No protection
1	 Protected against solid objects over 50mm, eg accidental touch by persons hands	1	 Protection against vertically falling drops of water eg condensation
2	 Protected against solid objects over 125mm, eg persons fingers	2	 Protection against direct sprays of water up to 15° from the vertical
3	 Protected against solid objects over 25mm (tools and wires)	3	 Protected against direct sprays of water up to 60° from the vertical
4	 Protected against solid objects over 1mm (tools, wires, and small wires)	4	 Protection against water sprayed from all directions - limited ingress permitted
5	 Protected against dust limited ingress (no harmful deposit)	5	 Protected against low pressure jets of water from all directions - limited ingress
6	 Totally protected against dust	6	 Protected against temporary flooding of water, eg for use on ship decks - limited ingress permitted
		7	 Protected against the effect of immersion between 15 cm and 1 m
		8	 Protects against long periods of immersion under pressure

NEMA SIZE

National Electrical Manufacturers Associations standard for enclosure protection rating, NEMA1-6 and 11-13 type is applicable in Non-Hazardous Locations, NEMA 7-10 is applicable in Hazardous Locations

Type	Usage place	Environment	Protection rating
1	Indoor Use	Non-explosion proof	Intended for indoor use primarily to provide a degree of protection against limited amounts of falling dirt
2	Indoor Use	Non-explosion proof	Intended for indoor use primarily to provide a degree of protection against limited amounts of falling water and dirt
3	Outdoor Use	Non-explosion proof	Intended for outdoor use primarily to provide a degree of protection against rain, sleet, windblown dust; and damage from external ice formation
3R	Outdoor Use	Non-explosion proof	Intended for outdoor use primarily to provide a degree of protection against rain, sleet; and damage from external ice formation, and must have a drain hole
3S	Outdoor Use	Non-explosion proof	Intended for outdoor use primarily to provide a degree of protection against rain, sleet, windblown dust; and to provide for operation of external mechanisms when ice laden
4	Indoor/Outdoor Use	Non-explosion proof	Intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, hose directed water; and damage from external ice formation
4X		Non-explosion proof	Intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose directed water; and damage from external ice formation
5	Indoor Use	Non-explosion proof	Intended for indoor use primary to provide
6	Indoor/Outdoor Use	Non-explosion proof	Intended for indoor or outdoor use primarily to provide a degree of protection against hose directed water, the entry of water during occasional temporary submersion at a limited depth; and damage from external ice formation
6P		Non-explosion proof	Intended for indoor or outdoor use primarily to provide a degree of protection against hose-directed water, the entry of water during prolonged submersion at a limited depth; and damage from external ice formation
7	Outdoor Use	Explosion proof	Intended for indoor use in locations classified as Class I, Groups A, B, C, or D, as defined in the NEC
8	Indoor/Outdoor Use	Explosion proof	Intended indoor or outdoor use in locations classified as Class I, Groups A, B, C, or D, as defined in the NEC
9	Indoor Use	Explosion proof	Intended for indoor use in locations classified as Class II, Groups E, F, and G, as defined in the NEC
10	Indoor/Outdoor Use	Explosion proof	Are constructed to meet the applicable requirements of the Mine Safety and Health Administration (MSHA)
11	Indoor Use	Non-explosion proof	Protection from the corrosive effects of liquids and gases by oil immersion
12	Indoor Use	Non-explosion proof	Intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt, and dripping non-corrosive liquids
12K	Indoor Use	Non-explosion proof	Intended knockouts are intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt, and dripping non corrosive liquids
13	Indoor Use	Non-explosion proof	Intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil, and non-corrosive coolant

NEMA Ratings and IP Ratings Equivalency Chart

The chart below is for comparison between two enclosure ratings It is only for reference and these two rating standards are not exactly converted

NEMA ENCLOSURE TYPE	IP ENCLOSURE TYPE
1	IP20
2	IP22
3	IP55
4	IP66
4X	IP66
6	IP67
12	IP54
13	IP54

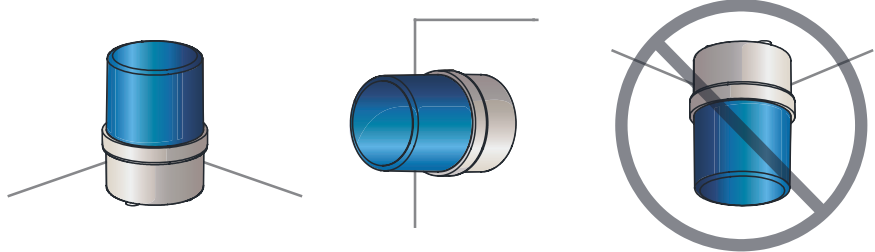
PRODUCT INSTALLATION DIRECTION



Install the product in accordance with the manual. otherwise, rainwater or moisture may penetrate into the product.

• BEACON/SIGNALING LIGHT

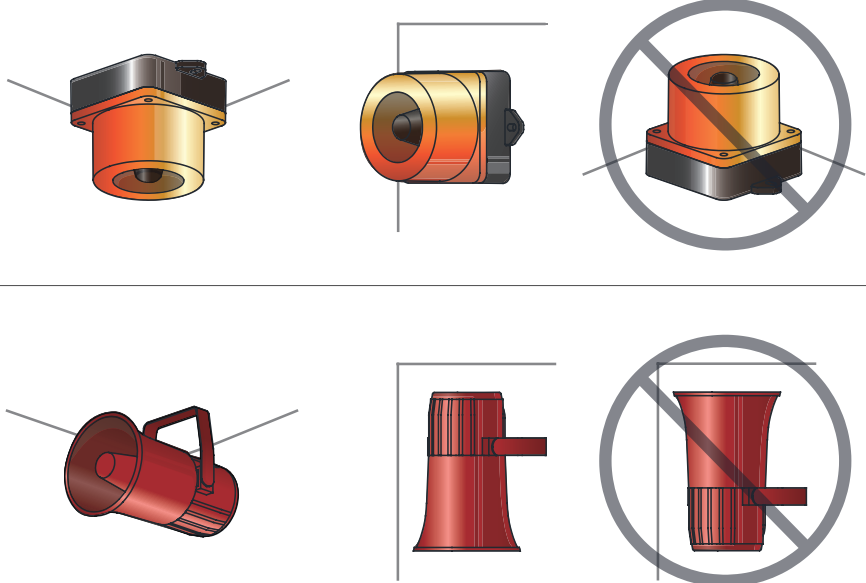
Power cord inlet part shall not be facing the sky.



※ For products with a protection rating of less than IPX4, please install it vertically.

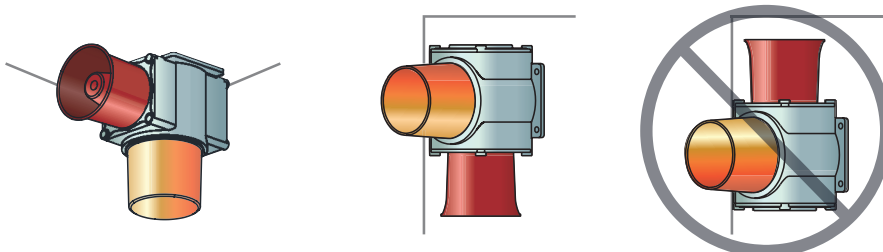
• ELECTRONIC SOUNDER /SIGNAL HORN

Sounder part shall not be facing the sky.



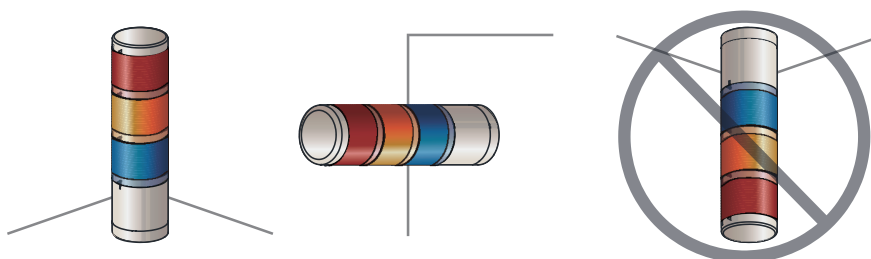
• **HEAVY-DUTY & EXPLOSION
PROOF SIGNALINGS**

Sounder part shall not be facing the sky.



• **SIGNAL TOWER LIGHTS**

Power cord inlet part shall not be facing the sky.



※ For products with a protection rating of less than IPX4, please install it vertically.

Pre-recorded Sound Tone and Sound Combination Chart

The combination of sounds(General)

17 pre-recorded sound tones for standard type products

Sound Number	Sound Tone	Sound Number	Sound Tone
SND01	Fire.A-ANG	SND10	Cuckoo's Waltz
SND02	Emergency WA-U(Yelp)	SND11	Piano Sonata
SND03	Ambulance PI-PO(Hi-low)	SND12	Turkish March
SND04	Abandon Alarm	SND13	Beep Intermittent
SND05	Machinery Fault	SND14	Door Chime
SND06	High Expansion	SND15	Phone Ring
SND07	7 Short PI./1 Long	SND16	PI.PI.PI Short
SND08	Sweet Home	SND17	Tripping Beat
SND09	For Elise		

• Standard sound combination for WS/WP/WM/WA type products

ON = 1/OFF = 0

ON OFF

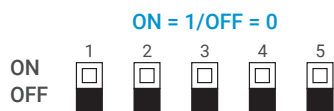
☐ ☐ ☐

17 sounds per combination can be selected according to your preference.4 combinations are available.

No.	1	2	3	Ch1	Ch2	Ch3	Ch4	Ch5
0	0	0	0	No sound				
1	0	0	1	SND01 Fire.A-ANG	SND02 Emergency WA-U	SND03 Ambulance PI-PO	SND05 Machinery Fault	SND06 High Expansion
2	0	1	0	SND01 Fire.A-ANG	SND04 Abandon Alarm	SND05 Machinery Fault	SND06 High Expansion	SND07 7 Short PI./1 Long
3	0	1	1	SND08 Sweet Home	SND09 For Elise	SND10 Cuckoo's Waltz	SND11 Piano Sonata	SND12 Turkish March
4	1	0	0	SND13 Beep Intermittent	SND14 Door Chime	SND15 Phone Ring	SND16 PI.PI.PI Short	SND17 Tripping Beat

※ You can select sound tones using the 3P switches located on the circuit board of the WS/WP/WM/WA Type products.

Sound tone combinations for standard type products



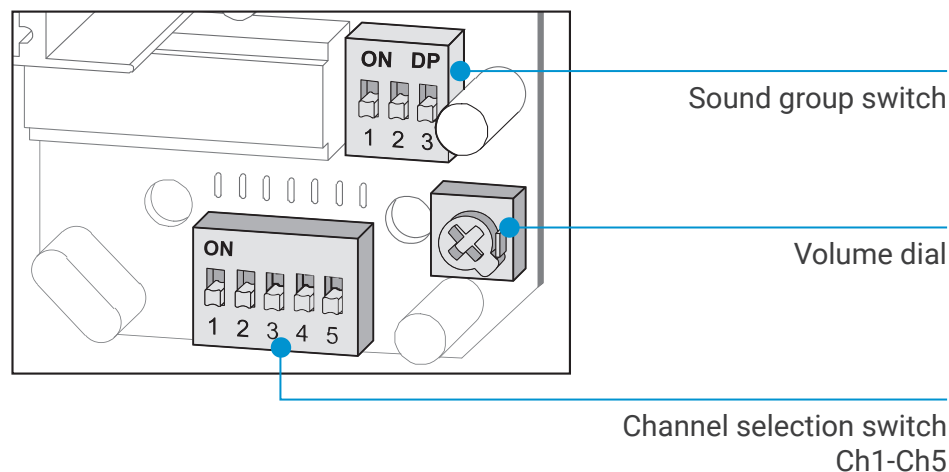
- 5 types of sounds (5 warning sounds (WS), 5 special warning sounds (WP), 5 melodies (WM), 5 alarms (WA), and 5 voice signals (WV) can be selected and played individually.
- The signal wire lead-out type product replaces the channel selection switch with external wiring.

Sound Category		Channel	Sound Tone	Sound Combination #
WS	5 warning sounds	Ch1	Fire.A-ANG	WS/WP/WM/WA No.1
		Ch2	Emergency WA-U(Yelp)	
		Ch3	Ambulance PI-PO(Hi-low)	
		Ch4	Machinery Fault	
		Ch5	High Expansion	
WP	5 special warning sounds	Ch1	Fire.A-ANG	WS/WP/WM/WA No.2
		Ch2	Abandon Alarm	
		Ch3	Machinery Fault	
		Ch4	High Expansion	
		Ch5	7 Short PI./1 Long	
WM	5 melodies	Ch1	Sweet Home	WS/WP/WM/WA No.3
		Ch2	For Elise	
		Ch3	Cuckoo's Waltz	
		Ch4	Piano Sonata	
		Ch5	Turkish March	
WA	5 alarms	Ch1	Beep Intermittent	WS/WP/WM/WA No.4
		Ch2	Door Chime	
		Ch3	Phone Ring	
		Ch4	PI.PI.PI Short	
		Ch5	Tripping Beat	
WV	5 customizable sound	Ch1	1. Voice messages are pre-recorded and provided from factory upon user's request	-
		Ch2	2. Each channel has recording space for 16 sec	
		Ch3	3. 5 channels available	
		Ch4	4. When only one channel is used, maximum recordable space is 80 sec	
		Ch5		

※ Please refer to [Pre-recorded Sound Tone and Sound Combination Chart] for detailed information about selectable sound patterns.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Sound Selection of Signal Sounds



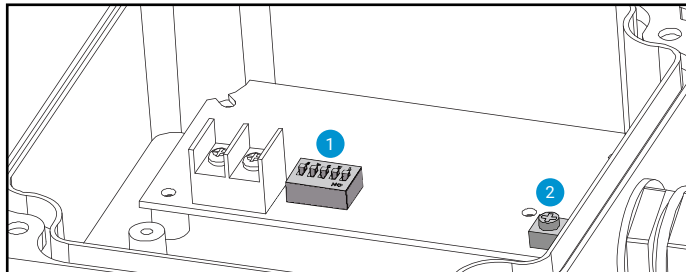
- Standard specification : Use internal switches Turn on dip switches of each channel, designated sound will be played.

Special Alarm Type Feature

How to set-up the special alarm type products

- A special alarm type products are classified into two models; basic model with special alarm and SD card (MP3) model.
- The 2 models have 31 built-in sounds, which can be chosen and played by binary input method.
- When storing MP3 files on the SD card (MP3) type models, you can select and play up to 31 sounds by using the binary input method. The bit input method can play 5 sound from #1 to #5, depending on the specifications given in the file name(For file specifications refer to Page30.)
- Includes eight play mode settings. For example, when the continuous playback setting/function is selected the warning message is played continuously for conditions that require frequent playback.

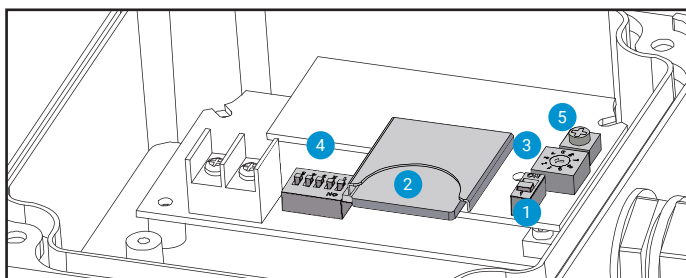
Built-in sound type model



- ① Sound selection switch
- ② Volume

*Built-in sound type model can select and play 31 sounds by using the sound selection switch.

SD card(MP3) type product feature



- ① Sound setting switch
- ② MP3 playable SD Card slot
- ③ Play mode setting switch
- ④ Sound selection switch
- ⑤ Volume

SD card(MP3) type product feature

1 SOUND setting switch

- If the switch is ON the SD card (MP3) will be played, and if the switch is OFF the built-in sounds will be played.

2 SD cards

- The SD card is a compact flash memory card for storing MP3 files.
- After saving the MP3 files in the SD card with the specified format, insert the card into the SD card slot and switch the sound setting switch to ON so the sounds can be played from the SD card.

3 PLAY MODE setting switch

- PLAY MODE setting switch is used to choose the channel input method or select various playing modes. Refer to the table below for switch features.
- Switch #0 and #9 is not used.

1	Bit Input Mode	5 sounds can be played from the selected group (choose one group from six groups) Play sound only once (if using sequential signal input or pulse signal input)
2	Binary Input Mode	Up to 31 sounds available for each model. Plays sound only once (sequential signal input only)
3	Bit Input Hold Playback Mode	5 sounds can be played from the selected group (choose one group from six groups) The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
4	Binary Input Hold Playback Mode	Up to 31 sounds available for each model The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
5	Bit Input Sound Reduction Mode	5 sounds can be played from the selected group (choose one group from six groups) You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input)
6	Binary Input Sound Reduction Mode	Up to 31 sounds available for each model You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input)
7	Bit Input Sequence Memory Playback Mode	5 sounds can be played from the selected group (choose one group from six groups) If the sound is inputted in a order, it will remember the order and play each sound about 3 seconds. The last input channel is fully played (bit input mode only)
8	Test Mode	In test mode, Ch1 of group is automatically played back repeatedly. To end the test mode, switch back to the other modes.

4 Channel selection switch

- By using 5 channel selection switches, one can choose the appropriate sound source depending on the Binary input and Bit input.

5 VOLUME

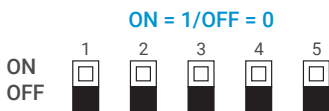
- You can adjust the speakers sound output by using the volume dial.

Sound Pattern and Combination for Special Alarm Type

Sound pattern for special alarm type

- Special alarm type product has 31 pre-recorded sound tones.
- Supports binary input mode. 5ch switch allows for 31 sound tones.

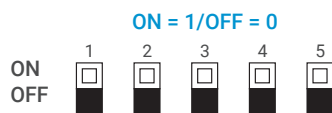
• Composition of binary input mode



- Left channel switch allows for choosing 31 sound tones.
- Channel switch will be substituted for an external wiring in case of LC type products.

No.	1	2	3	4	5	Sound tone	Frequency
0	0	0	0	0	0	No sound	
1	0	0	0	0	1	Rel rel rel	730Hz-920Hz
2	0	0	0	1	0	Slow Ambulance PI-PO	820Hz-1.05kHz
3	0	0	0	1	1	Oit Oit warning sound	360Hz-1.56kHz
4	0	0	1	0	0	Emergency(Siren)	770Hz-1.2kHz
5	0	0	1	0	1	Pi- buzzer	770Hz
6	0	0	1	1	0	7 Short Pl. / 1 Long	715Hz
7	0	0	1	1	1	Pi o Pi o	470Hz-1.14KHz
8	0	1	0	0	0	Phone Ring	740Hz-910Hz
9	0	1	0	0	1	Pi- buzzer	594Hz
10	0	1	0	1	0	Pi pi pi short	420Hz
11	0	1	0	1	1	Di o Di o 2 tones buzzer	594Hz-2.19KHz
12	0	1	1	0	0	Oit Oit warning sound	500Hz-1.11kHz
13	0	1	1	0	1	Slow Ambulance PI-PO	360Hz-470Hz
14	0	1	1	1	0	Slow Di o Di o	680Hz-840Hz
15	0	1	1	1	1	Fast Li o li o	360Hz-470Hz

• Composition of binary input mode



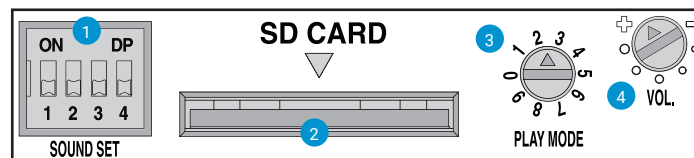
- Left channel switch allows for choosing 31 sound tones.
- Channel switch will be substituted for an external wiring in case of LC type products.

No.	1	2	3	4	5	Sound tone	Frequency
16	1	0	0	0	0	Fire.A-ANG	770Hz-1.11kHz
17	1	0	0	0	1	Fast Ambulance PI-PO	680Hz-840Hz
18	1	0	0	1	0	Slow Ambulance PI-PO	640Hz-840Hz
19	1	0	0	1	1	Ri ro ri ro warning sound	430Hz-470Hz
20	1	0	1	0	0	Repeat Di-o 3 times	680Hz-840Hz
21	1	0	1	0	1	Fire.A-ANG	430Hz-1.2KHz
22	1	0	1	1	0	Ambulance PI-PO	680Hz-840Hz
23	1	0	1	1	1	Slow Fire.A-ANG	480Hz-1.14kHz
24	1	1	0	0	0	Pi-pi- buzzer low frequency	700Hz
25	1	1	0	0	1	Pi-pi- buzzer high frequency	940Hz
26	1	1	0	1	0	Di-di- buzzer high frequency	800Hz
27	1	1	0	1	1	Di-di- buzzer low frequency	500Hz
28	1	1	1	0	0	Rising Po-ong	470Hz-1.11KHz
29	1	1	1	0	1	Fast Ambulance PI-PO	820Hz-1.05KHz
30	1	1	1	1	0	Rising frequency	150Hz-1kHz
31	1	1	1	1	1	Repeat A-ANG	1.4kHz-1.56kHz

How to set up the multifunctional products(MP3)

- Multifunctional type products can play MP3 sounds by using an SD card and can also play WS (5 Warning sounds), WP (5 special warning sounds 1st Group), WM (5 Melodies), WA (5 Alarms), WO (5 special warning sounds 2nd Group), and WN (5 special warning sounds 3rd Group) when not using a SD card.
- Includes seven different functions. For example, it is able to playback the message continuously with the continuous playback function for warning message that needs to be repeated often.
- Among multifunctional products, the built-in sound model (-N) does not support SD card nor play mode.

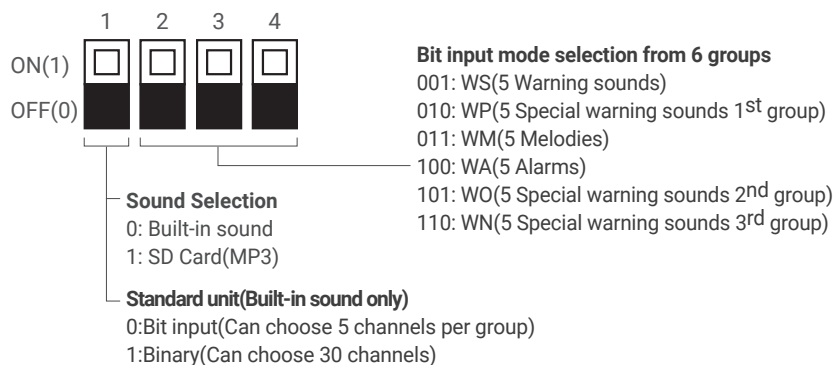
FUNCTION SETTING



- 1 Sound setting switch
- 2 MP3 playable SD Card slot
- 3 Play mode setting switch
- 4 Volume

1 Sound setting switch

- SD card type unit
- It can choose both built-in sounds and user defined sounds(MP3) by controlling sound setup switch no. 1.
- Standard unit
- It can choose both Bit input mode and Binary input mode by controlling sound setup switch no. 1.



- 30 pre-recorded sounds offered(5 warning sounds, 5 special warning sounds 1st group, 5 melodies, 5 alarms, 5 special warning sounds 2nd group, 5 special warning sounds 3rd group)
- External MP3 sound support(SD card)
- Binary input: 30 channels
- Bit input: 5 channels(6 sound groups)
- A multi-functional product that can use an SD card for MP3 playback
- Please refer to [Sound pattern and combination for multifunctional product] on this catalogue for channel input setting.

2 SD cards

- The SD card is a compact flash memory card for storing MP3 files.
- After saving the MP3 files in the SD card with the specified format, insert the card into the SD card slot and switch the sound setting switch to ON so the sounds can be played from the SD card.

3 PLAY MODE setting switch

- PLAY MODE setting switch is used to choose the channel input method or select various playing modes. Refer to the table below for switch features.
- Switch #0 and #9 is not used.

1	Bit Input Mode	5 sounds can be played from the selected group (choose one group from six groups) Play sound only once (if using sequential signal input or pulse signal input)
2	Binary Input Mode	Up to 31 sounds available for each model. Plays sound only once (sequential signal input only)
3	Bit Input Hold Playback Mode	5 sounds can be played from the selected group (choose one group from six groups) The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
4	Binary Input Hold Playback Mode	Up to 31 sounds available for each model The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
5	Bit Input Sound Reduction Mode	5 sounds can be played from the selected group (choose one group from six groups) You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input)
6	Binary Input Sound Reduction Mode	Up to 31 sounds available for each model You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input)
7	Bit Input Sequence Memory Playback Mode	5 sounds can be played from the selected group (choose one group from six groups) If the sound is inputted in a order, it will remember the order and play each sound about 3 seconds. The last input channel is fully played (bit input mode only)
8	Test Mode	In test mode, Ch1 of group is automatically played back repeatedly. To end the test mode, switch back to the other modes.

4 VOLUME

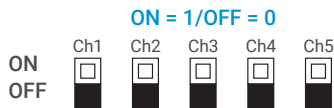
- You can adjust the speakers sound output by using the volume dial.

Multifunctional Type Feature

Sound patterns for multifunctional products

- Multifunctional product has 30 pre-recorded sound tones.
- 30 sound tones in binary input mode supported. Bit input mode has 5 sound tones within 1 group among 6 groups.

· Bit input mode's sound tone combinations

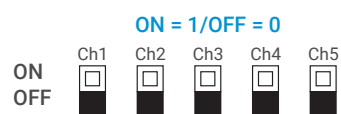


- Left channel switch allows to select 5 tons individually within designated group.
(For group selection, please refer to page 28 "How to set-up the multifunctional products")
- Channel switch will be substituted for external wiring in case of LC type products.

Sound	Ch	Sound Tone
WS 5 Warning Sounds	Ch1	Fire.A-ANG(560Hz-1.5kHz)
	Ch2	Emergency WA-U(Yelp)(600Hz-1.5kHz)
	Ch3	Ambulance PI-PO(Hi-How)(450Hz-900Hz)
	Ch4	Machinery Fault(820Hz)
	Ch5	High Expansion(1kHz)
WP 5 Special Warning Sounds (1st Group)	Ch1	Fire.A-ANG(560Hz-1.5kHz)
	Ch2	Abandon Alarm(820Hz)
	Ch3	Machinery Fault(820Hz)
	Ch4	High Expansion(1kHz)
	Ch5	7 Short PI. / 1 Long(1kHz)
WM 5 Melodies	Ch1	Sweet Home
	Ch2	For Elise
	Ch3	Cuckoo's Waltz
	Ch4	Piano Sonata
	Ch5	Turkish March

Sound	Ch	Sound Tone
WA 5 Alarms	Ch1	Beep Intermittent
	Ch2	Door Chime
	Ch3	Phone Ring
	Ch4	PI.PI.PI Short
	Ch5	Tripping Beat
WO 5 Special Warning Sounds (2nd Group)	Ch1	Rel rel rel(730Hz-920Hz)
	Ch2	Slow Ambulance PI-PO(820Hz-1.05kHz)
	Ch3	Wye yong Wye yong(770Hz-1.2kHz)
	Ch4	Phone ring 2(740Hz-910Hz)
	Ch5	Fire.A-ANG(770Hz-1.11kHz)
WN 5 Special Warning Sounds (3rd Group)	Ch1	Oit Oit(500Hz-1.11kHz)
	Ch2	Pi o Pi o(940Hz-2.19kHz)
	Ch3	Slow Di o Di o(680Hz-840Hz)
	Ch4	Li long Li ling(420Hz-470Hz)
	Ch5	911 Siren(150Hz-1kHz)

• Bit input mode's sound tone combinations



• Left channel switch allows the user to select from 30 available sound tones.

• Channel switch will be substituted for external wiring in case of LC type products.

No.	1	2	3	4	5	Sound tone	Frequency
0	0	0	0	0	0	No sound	
1	0	0	0	0	1	Fire.A-ANG	560Hz-1.5kHz
2	0	0	0	1	0	Emergency WA-U(Yelp)	600Hz-1.5kHz
3	0	0	0	1	1	Ambulance PI-PO(Hi-low)	450Hz-900Hz
4	0	0	1	0	0	Pi-ik Pi-ik	820Hz
5	0	0	1	0	1	Machinery Fault	820Hz
6	0	0	1	1	0	High Expansion	1kHz
7	0	0	1	1	1	Alarm	1kHz
8	0	1	0	0	0	Sweet Home	-
9	0	1	0	0	1	For Elise	-
10	0	1	0	1	0	Cuckoo's Waltz	-
11	0	1	0	1	1	Piano Sonata	-
12	0	1	1	0	0	Turkish March	-
13	0	1	1	0	1	Magic Flute	-
14	0	1	1	1	0	Badinerie	-
15	0	1	1	1	1	Pineapple Rag	-
16	1	0	0	0	0	Beep Intermittent	-
17	1	0	0	0	1	Door Chime	-
18	1	0	0	1	0	Phone Ring	-
19	1	0	0	1	1	PI.PI.PI Short	-
20	1	0	1	0	0	Tripping Beat	-
21	1	0	1	0	1	Rel rel rel	730Hz-920Hz
22	1	0	1	1	0	Slow Ambulance PI-PO	820Hz-1.05kHz
23	1	0	1	1	1	Wye yong Wye yong	770Hz-1.2kHz
24	1	1	0	0	0	Phone ring 2	740Hz-910Hz
25	1	1	0	0	1	Fire.A-ANG	770Hz-1.11kHz
26	1	1	0	1	0	Oit Oit	500Hz-1.11kHz
27	1	1	0	1	1	Pi o Pi o	940Hz-2.19kHz
28	1	1	1	0	0	Slow Di o Di o	680Hz-840Hz
29	1	1	1	0	1	Li long Li ling	420Hz-470Hz
30	1	1	1	1	0	911 Siren	150Hz-1kHz

How to Use a MP3 Type Product

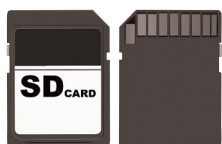
MP3-type models have 30 or 31 built-in alarm sounds and the users can play their voice messages or music files(MP3). You can choose two methods for playing up to 31 sounds with the binary input method. While the bit input method can only play 5 sounds from #1 to #5.

• What is a MP3?

- MP3 is a audio compression technology(Audio layer-3) design by MPEG (Motion Picture Experts Group) MP3 (MPEG-1 Audio Layer-3) is a standard technology and format for compressing a sound sequence into a very small file while preserving the original level of sound quality when it is played.
- Extension of the MP3 file can be found as "*.mp3", and any voice message, alarm message, and music can be played and saved as MP3 files.

• What is a SD card?

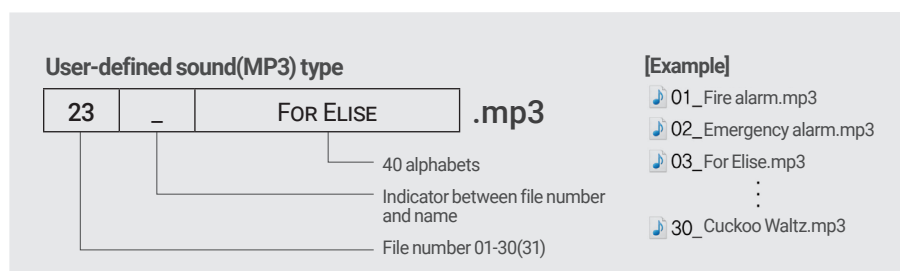
SD memory card is a compact flash memory card for storing various data such as MP3s or document files, Models with MP3 features can save voice messages or alarm messages in the SD card.



- Use standard SD card.
- Mini SD or Micro SD also can be used with adaptor.
- SD(FAT16), SDHC(FAT32) type supported
- Storage capacity : Max.32GB
- The SD card speed is compatible with the following classes : C2, C4, C6, C10, U1, V6, and V10.
- ※ The maximum speed supported is 10MB/s.

• Saving a MP3 file

- MP3 file can be saved and played in accordance with the standards specified by filename.
- Using binary input method according to the specifications given in the file name, a SD card which is used in special alarm type models(MP3) can save up to 31 sounds, multifunctional type models can save and play up to 30 sounds.
- Using bit input method according to the specifications given in the file name, you can select and play up to five sounds from the MP3 file.



• **Binary input and Bit input method**

Special alarm type models and multifunctional type models are divided into binary input method or Bit input method depending on the source selection method.

Binary input

You can only show 2 numbers with 1 switch "0", "1". With 5 switches you can have 31 combinations. Selecting one sound from 5 switches is the binary input method.

ON = 1/OFF = 0

	1	2	3	4	5
ON					
OFF					
No.	1	2	3	4	5
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	1	0
:	:	:	:	:	:
31	1	1	1	1	1

Bit input

The Bit input method only recognizes one of the 5 switches at a time. This method doesn't support two inputs at once. The number of combinations is small, but it is much more convenient to remember the channel number.

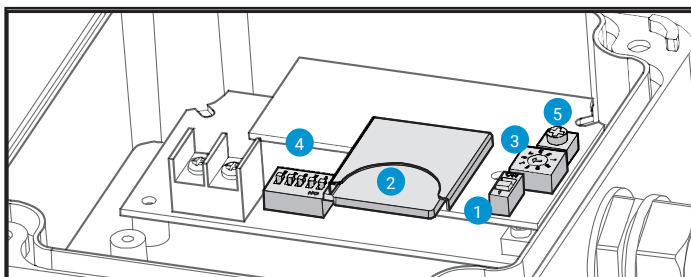
	1	2	3	4	5
ON ⁽¹⁾					
OFF ⁽⁰⁾					
	Ch1	Ch2	Ch3	Ch4	Ch5

How to Use a MP3 Type Product

MP3 supported model basic description

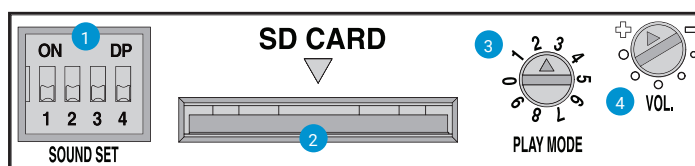
- MP3 supported products can play 30-31 built-in sounds or MP3 files saved in an SD card.
- Binary input method can play up to 30 - 31 sounds, and Bit input method can play 5 sounds in accordance with the standards specified by filename.
- Can choose and play 5 sounds from #1 to #5.
- The volume of our product when playing MP3 files was measured based on "x" dB/1KHz sine wave playback, and volume deviation may occur depending on the type of sound source used by the customer.

Switch select type



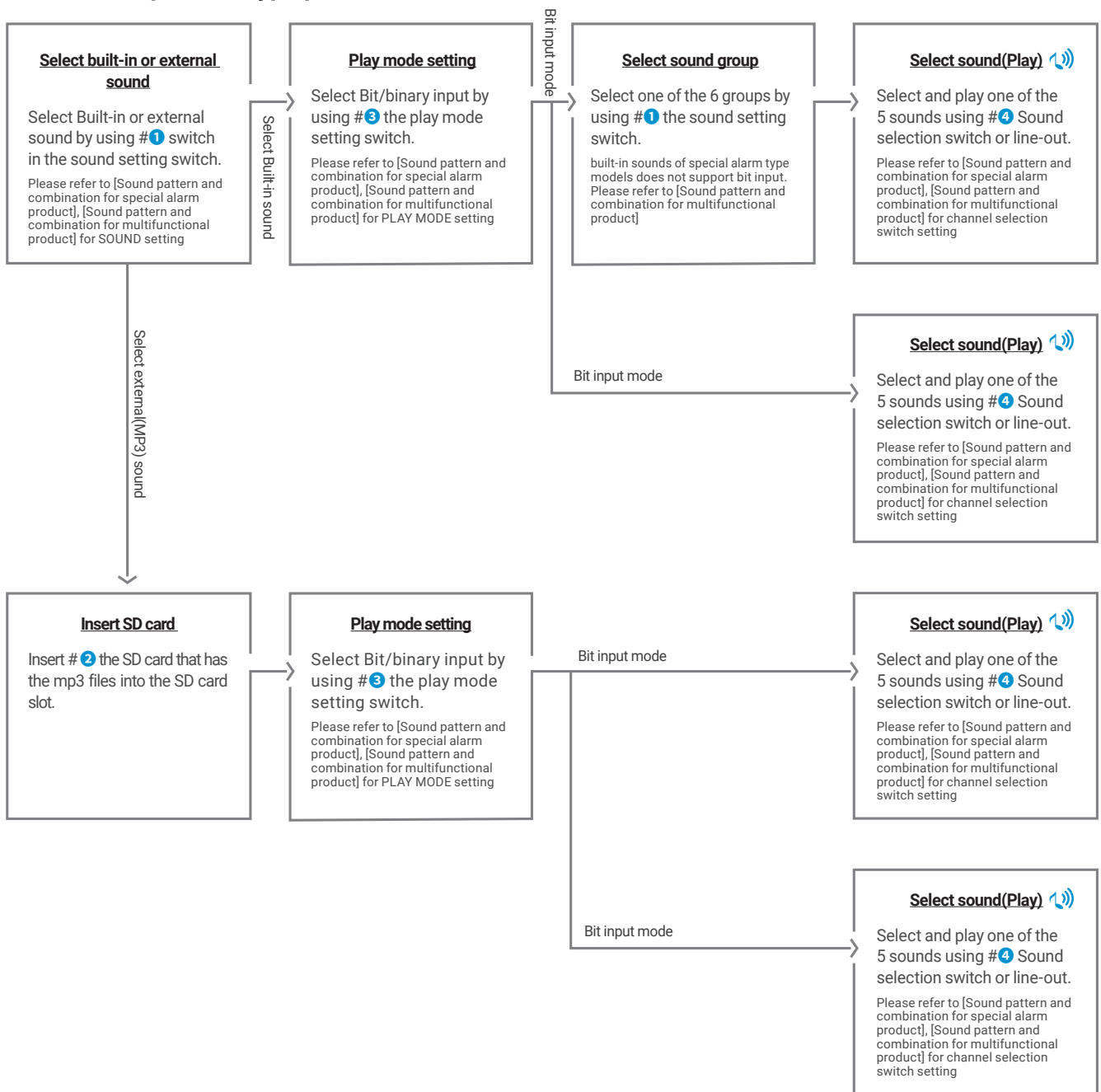
- 1 Sound setting switch
- 2 MP3 playable SD Card slot
- 3 Play mode setting switch
- 4 Sound selection switch
- 5 Volume

Line-out type



- 1 Sound setting switch
- 2 MP3 playable SD Card slot
- 3 Play mode setting switch
- 4 Volume









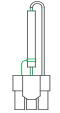
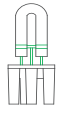
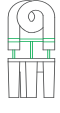
How to set-up a MP3 type product



Bulb Specification

The table below summarizes bulb specifications that are equipped with Qlight's products. Please carefully review the bulb specification in case bulb replacement is needed. Otherwise it may cause part malfunction.










Layout	Part#	Feature	Spec	Voltage	Current	Product
	1	14V / 5W	G14 9S	12V	0.357A	S50, ST45
	2	27V / 5W	G14 9S	24V	0.185A	
	3	120V / 5W	T16 x 28 9S	110V	0.042A	S50, ST45
	4	240V / 5W	T16 x 28 9S	220V	0.021A	
	5	12V / 5W	T16 x 35 15S	12V	0.417A	S60, S80, SR SJ, SJD
	6	24V / 5W	T16 x 35 15S	24V	0.208A	
	7	120V / 5W	T16 x 35 15D	110V	0.042A	S60
	8	240V / 5W	T16 x 35 15D	220V	0.021A	
	9	12V / 10W	T16 x 35 15S	12V	0.833A	S100, S125 SE ST56, ST80
	10	24V / 10W	T16 x 35 15S	24V	0.417A	
	11	48V / 10W	T16 x 35 15S	48V	0.208A	
	12	120V / 10W	T16 x 35 15S	110V	0.083A	S100, S125 ST56, ST80
	13	240V / 10W	T16 x 35 15S	220V	0.042A	
	14	48V / 10W	T16 x 35 15D	48V	0.208A	
	15	120V / 10W	T16 x 35 15D	110V	0.083A	
	16	240V / 10W	T16 x 35 15D	220V	0.042A	
	17	12V / 15W	G23 15S	12V	1.250A	SK, S150, SH1, SH2, SED SD, SHD, SHD2 SMD, SESA, SEBA, SEA
	18	24V / 15W	G23 15S	24V	0.625A	
	19	48V / 15W	G23 15S	48V	0.313A	
	20	120V / 15W	G23 15S	110V	0.125A	
	21	240V / 15W	G23 15S	220V	0.063A	
	22	120V / 15W	G23 15D	110V	0.125A	S150, SH1, SH2, SED SD, SHD, SHD2 SMD, SESA, SEBA, SEA
	23	240V / 15W	G23 15D	220V	0.063A	
	24	12V / 23W	S25 15S	12V	1.916A	S150, SH2, SD, SMD SESA, SEBA, SEA
	25	24V / 23W	S25 15S	24V	0.958A	
	26	48V / 25W	T23 x 62 15D	48V	0.521A	S150, SH2, SD, SMD SESA, SEBA, SEA
	27	120V / 25W	T23 x 62 15D	110V	0.208A	
	28	240V / 25W	T23 x 62 15D	220V	0.104A	
	29	12V / 35W	RP35 15S	12V	2.917A	S180
	30	24V / 35W	RP35 15S	24V	1.458A	

Layout	Part#	Feature	Spec	Voltage	Current	Product
	31	120V / 35W	RP35 15D	110V	0.292A	S180
	32	240V / 35W	RP35 15D	220V	0.146A	
	33	110V / 60W	E26 ES	110V	0.545A	S150, SH2, SD, SMD SESA, SE, SEBA, SEA
	34	220V / 60W	E26 ES	220V	0.272A	
	35	12V / 30W	A60 E26	12V	2.500A	S150, SH2 SD, SMD
	36	24V / 60W	A60 E26	220V	2.500A	
	37	110V / 60W	A60 E26	110V	0.545A	S150, SH2 SD, SMD
	38	220V / 60W	A60 E26	220V	0.272A	
	39	12V / 35W	15S Halogen	12V	2.917A	SKH
	40	24V / 35W	15S Halogen	24V	1.458A	
	41	110V / 35W	15D Halogen	110V	0.318A	S150, SH2, SD, SMD SESA, SE, SEBA, SEA
	42	220V / 35W	15D Halogen	220V	0.159A	
	43	12V / 55W	15D Halogen	12V	4.583A	S150, SH2, SD, SMD SESA, SE, SEBA, SEA
	44	24V / 55W	15D Halogen	24V	2.292A	
	45	120V / 55W	15D Halogen	110V	0.458A	S150, SH2, SD, SMD SESA, SE, SEBA, SEA
	46	240V / 55W	15D Halogen	220V	0.229A	
	47	220V-350V	BGA2120 -BBC I Type xenon lamp		4W	S80S, S80AS SNE-S, SNES-S, SE-S
	48	200V-550V	EUB0641 -1A(G) U Type xenon lamp		6W	S100S, S125S S150US, S150RS SJS, SJSP SH1S, SH2S SEDS, SDS, SMDs SHDS, SHD2S SCDWS, SCDFS SESAS, SEBAS, SEAS
	49	280V-400V	BH0647(G) W Type xenon lamp		16W	S180US, S180UHS








Icon Description

This catalogue helps users quickly identify the product's specifications and features by using several types of icons. If you understand the concept for each icon, you will find it easy to understand the catalogue information.








Light Source and Operating Mode Icons

Icon	Operating Mode	Icon	Operating Mode
	Bulb steady type		Bulb steady/flashing type
	Bulb revolving type		LED revolving type
	LED steady type		LED steady/flashing type
	LED simulated revolving type		LED strobe type
	Xenon lamp strobe type		

Acoustic Signal Icons

Icon	Siren	Icon	Siren
	Buzzer		Speaker
	Horn		Bell
	Motor siren		MP3
	Volume(dB)		

Specifications Icons

Icon	Specification	Icon	Specification
	Magnet type		Ambient operating temperature
	NPN type transistor		PNP type transistor
	IP rating		Wireless Network
	RoHS		

Heavy Duty Signalings



Technical information	P. 32
References	P. 34
Product specifications	P. 40



Vibration and Shock of Heavy-Duty Products

Heavy-duty products must be tested by strict standards to withstand heavy vibration and shock environments.

• Vibration Standard

- Test is conducted in 3 directions X, Y, Z, at 15g acceleration, frequency band 10Hz-200Hz (1.0octave/ min), and 10mm maximum amplitude for four hours in Z direction and two hours in the X, Y direction. The test should be conducted for a total 8 hours.
- There should be no cracks on the exterior of the product or breakage, separation of components after the test, and should operate normally for two hours at its rated voltage.

• Shock Standard

- Test is conducted in 3 directions X, Y, Z, at 100g impact acceleration for a 11ms duration.
- There should be no cracks on the exterior of the product or breakage, separation of components after the test, and should operate normally for two hours at its rated voltage.

Material Characteristics

Vessels and heavy-duty products require vibration, shock and corrosion resistant materials

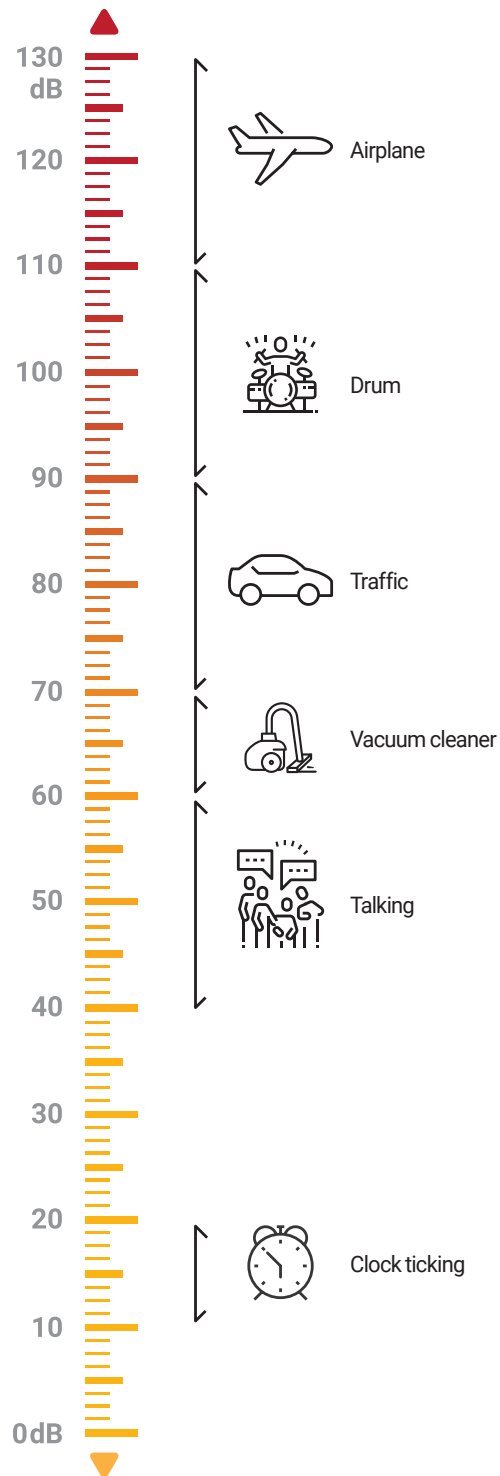
• The characteristics of the materials that are mainly used in Qlight products

Material	Abbreviation	Characteristics
ABS resin	ABS	Has opaque gloss on the surface and has excellent shock resistance mainly used on exterior parts use of electrical and electronic components
Polycarbonate	PC	Has a high-strength and high-tensile chemical structure, with great electrical insulation and transparency, mainly used on components that need impact resistance for example, transparent covers for car parts that requires transparency, and small electrical and electronic components, etc.
Acrylic	PMMA	Has a light transmittance over 90% with a high transparency, and has excellent chemical resistance to the external environment mainly used for lens covers of interior lighting, and used for the replacement of glass in automobiles, aircraft, and ships
Aluminum	Al	Lightweight and durable, widely used throughout industry for its oxidation resistance low density, low cost, and corrosion resistance- widely used in aerospace, transportation, architecture, cryogenic, and harsh environments
Brass	BRASS	Brass is an alloy of copper and tin. It has greater castability and abrasion resistance mainly used in arts and crafts, valves, ship plates, statues, springs that require elasticity, parts of machinery, bearing materials, electrical, semiconductor materials
steel use stainless	STS	The price is expensive compared to ordinary steel but has better corrosion resistance and there is no need for additional surface treatment mainly used as external parts
Silicon rubber	Q(Silicon)	For its cold resistance, heat-resistant, oil resistant, non-toxic, chemical resistance. It is mainly used in defense and aerospace industries, automotive, food containers, etc.
Nitrile rubber	NBR	Excellent resistance to high temperature and lubricant used mainly in oil sealing, gaskets, and oil hoses

Examples of Everyday Noise

In order to transmit sound effectively in noisy environments, products require a sound signaling device with a high volume.

The volume of the signaling devices compared with the noise of everyday life is shown below.



Product Specification List for Heavy Duty Signalings

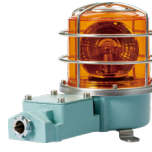


Model number	FLTS	QA70HLS	QA85LSE	QA100HLS	QA115HLS	QA115HLSP
Voltage	DC12V, DC24V	DC12V-24V	DC12V-24V	DC12V-24V	DC12V-24V	DC12V-24V
Dimension (mm)	Outdia	80x80	Ø72(Globe) 108x112(Body)	Ø101	Ø107(Globe) Ø150(Body)	Ø117
	Height	37	108	90	112	291
	Depth					
Materials	Lens-PC Housing-ABS	Lens-PC Housing-ABS+GF	Lens-PC Housing-ABS+PC	Lens-PC Housing-ABS	Lens-PC Housing-PC	Lens-PC Housing-PC
Light source & Operation	LED Strobe	●	●	●	●	●
	LED Steady/Flashing	●(Steady)	●			
Mounting structure	Self mount	Self mount	Self mount	Self mount	Self mount	Pole mount
Cable entry		Ø9 CABLE ENTRY	Ø5 CABLE ENTRY	Ø10 CABLE ENTRY		
Protection rating	IP65	IP66	IP65	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Mounting direction	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical
Certificates	CE, UL	-	-	CE	CE	CE
Customization	-	-	Connector type wiring products	-	Connector type wiring products, Built-in protection cage	Connector type wiring products
Page	P40	P41	P42	P41	P43	P43



Model number	QA115LSE	QA125HLS	QA125HLSP	QA140HLSP	SH1	SH1P
Voltage	DC12V-24V	DC12V-24V	DC12V-24V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Outdia	Ø107(Globe) Ø150(Body)	Ø123	Ø123	Ø140	Ø136
	Height	112	158	330	325	167
	Depth				-	-
Materials	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-Al	Lens-PC Housing-Al
Light source & Operation	Bulb Revolving				●	●
	LED Revolving				●	●
	LED Steady/Flashing				●	●
	LED Strobe	●	●	●		
	Xenon Strobe				●	●
Mounting structure	Self mount	Self mount	Pole mount	Pole mount	Self mount	Self mount
Cable entry		-	-	-	1/2" PF	1/2" PF
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Mounting direction	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical
Certificates	CE	-	-	CE	CCS, CE	CCS, CE
Customization	Connector type wiring products, Built-in protection cage	-	-	Connector type wiring products	Built-in cable gland	Built-in cable gland
Page	P44	P45	P45	P46-47	P48-53	P48-53

Product Specification List for Heavy Duty Signalings



Model number	SH1-SUS	SH1P-SUS	SH1T	SH1TP	SH2	SH2P
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Outdia	Ø136	Ø136	Ø136	Ø136	Ø154
	Height	167	178	167	178	198
	Depth	-	-	234(Length)	234(Length)	-
Materials	Lens-PC Housing-STS316L	Lens-PC Housing-STS316L	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al
Light source & Operation	Bulb Revolving	●	●	●	●	●
	LED Revolving	●	●	●	●	●
	LED Steady/Flashing	●	●	●	●	●
	Xenon Strobe	●	●	●	●	●
Mounting structure	Self mount	Self mount	Self mount	Self mount	Self mount	Self mount
Cable entry	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Mounting direction	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical
Certificates	CE	CE	CE	CE	CE	CE
Customization	Built-in cable gland	Built-in cable gland	Built-in cable gland, 2 ways terminal box, Cable entry 3/4"PF	Built-in cable gland, 2 ways terminal box, Cable entry 3/4"PF	Built-in cable gland, Brass Housing	Built-in cable gland, Brass Housing
Page	P48-53	P48-53	P48-53	P48-53	P48-53	P48-53

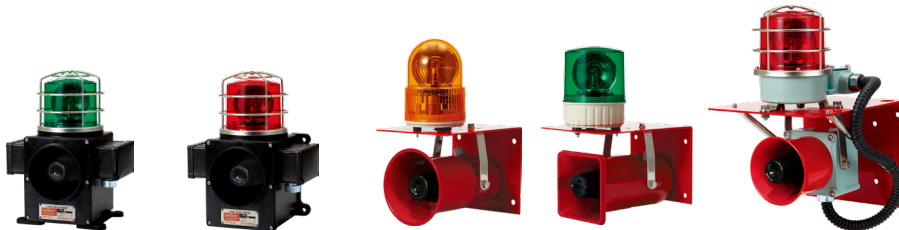


Model number	SH2T	SH2TP	SHD	SHDP	SHD2	SHD2P
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Outdia	Ø154	Ø154	Ø135	Ø135	Ø135
	Height	198	212	227	237	237
	Depth	250(Length)	250(Length)	263(Length)	263(Length)	359(Length)
Materials	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al
Light source & Operation	Bulb Revolving	●	●	●	●	●
	LED Revolving	●	●	●	●	●
	LED Steady/Flashing	●	●	●	●	●
	Xenon Strobe	●	●	●	●	●
Sound pattern/ dB	5 signal sounds	-	-	Max.114dB at 1m	Max.114dB at 1m	Max.114dB x 2 at 1m
	Voice signal	-	-	108-113dB at 1m	108-113dB at 1m	108-113dB x 2 at 1m
Mounting structure	Self mount	Self mount	Self mount	Self mount	Self mount	Self mount
Cable entry	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Mounting direction	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical
Certificates	CE	CE	CE, CCS	CE, CCS	-	-
Customization	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, Brass Housing	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, Brass Housing	Built-in cable gland, Cable entry 3/4" PF External signal sound line	Built-in cable gland, Cable entry 3/4" PF External signal sound line	Built-in cable gland, Cable entry 3/4" PF External signal sound line	Built-in cable gland, Cable entry 3/4" PF External signal sound line
Transistor	-	-	NPN type	NPN type	NPN type	NPN type
Page	P48-53	P48-53	P54-57	P54-57	P54-57	P54-57

Product Specification List for Heavy Duty Signalings



Model number	SED	SEDP	SD	SDP	SMD	SMDP
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)						
Outdia	Ø135	Ø135	Ø158	Ø158	Ø158	Ø158
Height	380	390	410	424	463	478
Depth	175	175	175	175	210	210
Material	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al
Light source & Operation						
Bulb Revolving	●	●	●	●	●	●
LED Revolving	●	●	●	●	●	●
LED Steady/Flashing	●	●	●	●	●	●
Xenon Strobe	●	●	●	●	●	●
Sound pattern/dB						
5 signal sounds	Max.114dB at 1m	Max.114dB at 1m	Max.114dB at 1m	Max.114dB at 1m	Max.120dB at 1m	Max.120dB at 1m
Voice signal	108-113dB at 1m	108-113dB at 1m	108-113dB at 1m	108-113dB at 1m	109-117dB at 1m	109-117dB at 1m
Mounting structure	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount
Cable entry	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Mounting direction	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical
Certificates						
Customization	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, External signal sound line	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, External signal sound line	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, External signal sound line, Brass Housing	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, External signal sound line, Brass Housing	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, External signal sound line, Brass Housing	Built-in cable gland, 2 ways terminal box, Cable entry 3/4" PF, External signal sound line, Brass Housing
Transistor	NPN type	NPN type	NPN type	NPN type	NPN type	NPN type
Page	P61-66	P61-66	P61-66	P61-66	P61-66	P61-66



Model number	SCDF	SCDW	SC1	SC2	SC3
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)					
Outdia	Ø140(Cage)	Ø140(Cage)	150(Width)	174(Width)	244(Width)
Height	322	313	287	312	381
Depth	167(Length)	177(Length)	200	232	292
Materials	Lens-PC Housing-PC+GF	Lens-PC Housing-PC+GF	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-PC Housing-Al
Light source & Operation					
Bulb Steady/Flashing			●	●	●
Bulb Revolving	●	●	●	●	●
LED Revolving	●	●	●	●	●
LED Steady/Flashing	●	●	●	●	●
LED Strobe			●	●	●
LED Simulated revolving			●	●	●
Xenon Strobe	●	●	●	●	●
Sound pattern/dB					
5 signal sounds	Max.113dB at 1m	Max.113dB at 1m			
15 signal sounds			Max.108dB at 1m	Max.105dB at 1m	Max.114dB at 1m
Voice signal	108-113dB at 1m	108-113dB at 1m	95-102dB at 1m	94-101dB at 1m	108-113dB at 1m
Mounting structure	Self mount	Wall mount	Wall mount	Wall mount	Wall mount
Cable entry	1/2" PF	1/2" PF	-	-	1/2" PF
Protection rating	IP66	IP66	IP44	IP44	IP56
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor Use	Indoor Use	Indoor Use
Mounting direction	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical
Certificates	CE, CCS	CE, CCS			
Customization	Built-in cable gland, Cable entry 3/4" PF, External signal sound line	Built-in cable gland, Cable entry 3/4" PF, External signal sound line	(Refer to products specifications)	(Refer to products specifications)	(Refer to products specifications)
Transistor	NPN type	NPN type			
Page	P58-60	P58-60	P67-68	P67-68	P67-68

Product Specification List for Heavy Duty Signalings



Model number	SSLW	SSLM	QWCD35 (QWCD35B)	QWCD50	QWCD35T (QWCD35BT)	QWCD50T
Voltage	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC12V-24V AC110V-220V (Buzzer type: DC12V, DC24V AC110V-220V)	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V (Buzzer type: DC12V, DC24V AC110V-220V)	DC12V-24V AC110V-220V
Dimension (mm)	Outdia	Ø93	Ø93	□136 x 179	□196 x 179	□229 x 222
	Height	160-595	160-595			
	Depth	43	43	128	163	126
Materials	Lens-PC Housing-AL	Lens-PC Housing-AL	Horn-PC Housing-PC+ABS	Horn-PC Housing-PC+ABS	Horn-PC Housing-PC+ABS	Horn-PC Housing-PC+ABS
Light source & Operation	LED Steady/ Flashing	•	•	•	•	•
	LED Strobe					
Sound pattern/ dB	High volume buzzer		Max.115dB at 1m		Max.115dB at 1m	
	30 signal sounds		Max.115dB at 1m	Max.123dB at 1m	Max.115dB at 1m	Max.123dB at 1m
	31 signal sounds		Max.112dB at 1m	Max.115dB at 1m	Max.112dB at 1m	Max.115dB at 1m
	MP3					
Mounting structure	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount
Cable entry	M12-5PIN connector C10-Cable	M12-5PIN connector C10-Cable	PG13.5	PG13.5	PG13.5	PG13.5
Protection rating	IP68	IP68	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Mounting direction	Vertical, Horizontal, Reverse vertical	Vertical, Horizontal, Reverse vertical	Vertical, Reverse vertical	Vertical, Reverse vertical	Vertical, Reverse vertical	Vertical, Reverse vertical
Certificates	CE	CE	CE, UL, CCS	CE, UL	CE, UL	CE, UL
Customization	-	-	External signal line, CAN communication type, Cold resistance type	External signal line, Cold resistance type	External signal line, CAN communication type, Cold resistance type	External signal line, Cold resistance type
Transistor	-	-	NPN type	NPN type	NPN type	NPN type
Page	P69-70	P69-70	P71-76	P71-76	P71-76	P71-76

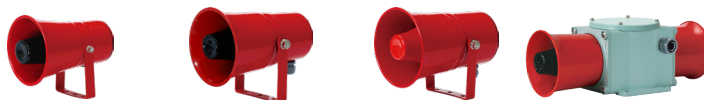


Model number	QWH35 (QWH35B)	QWH50	QWH35T (QWH35BT)	QWH50T
Voltage	DC12V-24V AC110V-220V (Buzzer type: DC12V, DC24V AC110V-220V)	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V (Buzzer type: DC12V, DC24V AC110V-220V)	DC12V-24V AC110V-220V
Dimension (mm)	Outdia	□136 x 179	□168 x 222	□196 x 179
	Height			□229 x 222
	Depth	128	163	126
Materials	Horn-PC+ABS Housing-PC+ABS	Horn-PC+ABS Housing-PC+ABS	Horn-PC+ABS Housing-PC+ABS	Horn-PC+ABS Housing-PC+ABS
Sound pattern/ dB	High volume buzzer	Max.115dB at 1m	Max.115dB at 1m	
	30 signal sounds			
	31 signal sounds	Max.115dB at 1m	Max.123dB at 1m	Max.115dB at 1m
	MP3	Max.112dB at 1m	Max.115dB at 1m	Max.112dB at 1m
Mounting structure	Wall mount	Wall mount	Wall mount	Wall mount
Cable entry	PG13.5	PG13.5	PG13.5	PG13.5
Protection rating	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Mounting direction	Vertical, Reverse vertical	Vertical, Reverse vertical	Vertical, Reverse vertical	Vertical, Reverse vertical
Certificates	CE, UL	CE, UL	CE, UL	CE, UL
Customization	External signal line, CAN communication type, Cold resistance type	External signal line, Cold resistance type	External signal line, CAN communication type, Cold resistance type	External signal line, Cold resistance type
Transistor	NPN type	NPN type	NPN type	NPN type
Page	P77-82	P77-82	P77-82	P77-82

Product Specification List for Heavy Duty Signalings



Model number	SEWN30E	SEWN30L	SEWN30T	SEWN50E	SEWN50L	SEWN50T
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Outdia	Ø117(Horn)	Ø117(Horn)	Ø117(Horn)	Ø168(Horn)	Ø168(Horn)
	Height		223			272
	Depth	182	179(Length)	182	229	226(Length)
Materials	Housing-Al Horn housing-PC	Housing-Al Horn housing-PC	Housing-Al Horn housing-PC	Housing-Al Horn housing-PC	Housing-Al Horn housing-PC	Housing-Al Horn housing-PC
Sound pattern/ dB	5 signal sounds	Max.114dB at 1m	Max.114dB at 1m	Max.114dB at 1m	Max.120dB at 1m	Max.120dB at 1m
	Voice signal	108-113dB at 1m	108-113dB at 1m	108-113dB at 1m	109-117dB at 1m	109-117dB at 1m
Mounting structure	Wall mount	Self mount	Wall mount	Wall mount	Self mount	Wall mount
Cable entry	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF	1/2" PF
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Certificates	CE, CCS	CE	CE	CE	CE	CE
Customization	Built-in cable gland, External signal sound line, Brass Housing, Cable entry 3/4" PF	Built-in cable gland, External signal sound line, Brass Housing, Cable entry 3/4" PF	Built-in cable gland, 2 ways terminal box, External signal sound line, Brass Housing, Cable entry 3/4" PF	Built-in cable gland, External signal sound line, Brass Housing, Cable entry 3/4" PF	Built-in cable gland, External signal sound line, Brass Housing, Cable entry 3/4" PF	Built-in cable gland, 2 ways terminal box, External signal sound line, Brass Housing, Cable entry 3/4" PF
Transistor	NPN type	NPN type	NPN type	NPN type	NPN type	NPN type
Page	P83-85	P83-85	P83-85	P83-85	P83-85	P83-85



Model number	SN	SEHN25	SEHN50	SHDN30
Voltage	DC12V-24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Outdia	Ø119(Horn)	Ø158(Horn)	Ø167(Horn)
	Height	-	-	127
	Depth	167(Length)	238(Length)	242(Length)
Materials	Housing-Steel	Housing-Steel	Housing-Steel	Housing-Al Horn housing-PC
Sound pattern/ dB	5 signal sounds	Max.100dB at 1m	Max.115dB at 1m	Max.118dB at 1m
	Voice signal	92-96dB at 1m	99-112dB at 1m	108-118dB at 1m
Mounting structure	Self mount	Self mount	Self mount	Self mount
Cable entry	Ø10	Ø21	Ø21	1/2" PF
Protection rating	IP55	IP55	IP55	IP56
Mounting location	Indoor Use	Indoor Use	Indoor Use	Indoor Use
Certificates	CE	-	-	-
Customization	External signal sound line	External signal sound line	External signal sound line	External signal sound line, Cable entry 3/4" PF
Transistor	NPN type	NPN type	NPN type	NPN type
Page	P88-89	P88-89	P88-89	P86

Product Specification List for Heavy Duty Signalings



Model number	SM30	SM40	SM200	SM400	SAB130	SAB200
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V
Outdia	Ø77	Ø128	Ø143	Ø165	Ø130(Bell)	Ø200(Bell)
Dimension (mm)						
Height	-	-	-	-	238	269
Depth	DC12/24: 82(Length) AC110/220: 105(Length)	162(Length)	231(Length)	284(Length)	107	107
Materials	Housing-Steel	Housing-ABS	Housing-Steel	Housing-Steel	Bell-Steel Housing-ABS	Bell-Steel Housing-ABS
Volume	Max.110dB at 1m	Max.116dB at 1m	Max.120dB at 1m	Max.123dB at 1m	Max.95dB at 1m	Max.95dB at 1m
Mounting structure	Self mount	Self mount	Self mount	Self mount	Wall mount	Wall mount
Cable entry	Ø9	Ø22	Ø9	Ø22	Ø20	Ø20
Protection rating	-	-	-	-	IP44	IP44
Mounting location	Indoor Use	Indoor Use	Indoor Use	Indoor Use	Indoor Use	Indoor Use
Certificates	-	-	CE	-	CE	CE
Customization	-	-	-	-	Cable entry 2EA	Cable entry 2EA
Page	P90	P90	P91	P91	P87	P87



Model number	SANA200	SANA400	SANA700	QEB
Voltage	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V
Dimension (mm)				
Outdia	Ø146(Horn)	Ø110(Horn)	Ø101(Horn)	120 x 120
Height	222	222	222	-
Depth	333	193	144	117
Materials	Horn-PC Solenoid box-ABS	Horn-PC Solenoid box-ABS	Horn-PC Solenoid box-ABS	Housing, Cover-Al
Volume	Max.130dB at 1m	Max.130dB at 1m	Max.130dB at 1m	-
Mounting structure	Wall mount	Wall mount	Wall mount	Wall mount
Cable entry	10C nipple(Air)	10C nipple(Air)	10C nipple(Air)	1/2" NPT, 10C nipple(Air)
Protection rating	IP56	IP56	IP56	IP66
Mounting location	Indoor Use	Indoor Use	Indoor Use	Indoor/Outdoor Use
Certificates	-	-	-	KIMM
Customization	Separate design between horn and solenoid box, Non return valve, Built-in Y filter, Regulator	Separate design between horn and solenoid box, Non return valve, Built-in Y filter, Regulator	Separate design between horn and solenoid box, Non return valve, Built-in Y filter, Regulator	Built-in Ex-Proof cable gland, 2 ways entries, Cable entry 3/4" NPT
Page	P92-93	P92-93	P92-93	P94



FLTS

PRODUCT SPECIFICATION

FLTS

Materials Lens-PC, Housing-ABS**Ambient operating temperature** -30°C to +50°C**Protection rating** IP65**Compliant with RoHS directive**

- Attractive appearance with compact size
- Easy installation by adopting connector type power line
- Excellent visibility of the front/side indicator by adopting special diffused lens

FLTS LED Steady Type Turn Signal Light

Model number	Voltage	Current	Certificates	Weight	Color
FLTS	DC12V	100mA		0.12kg	● A - Amber
	DC24V	50mA			

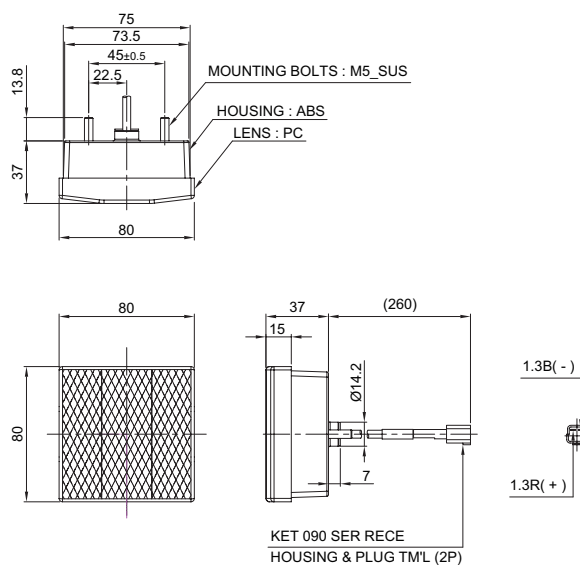
※ DC12V has a free-voltage range of DC10V-DC13.2V

※ DC24V has a free-voltage range of DC21.6V-DC26.4V

Technical Diagram

Units: mm

·FLTS



Wiring Instructions

- External power line - UL2464 AWG20 (0.5sq) x 2C 250mm
- This product can be wired regardless of polarity.
- Connector - KET 090 SER RECE /HOUSING & PLUG TM'L (2P)

Ordering Specification

FLTS	-	12	-	A
[Model number]		[Voltage]		[Color]
FLTS		12-DC12V 24-DC24V		● A-Amber



PRODUCT SPECIFICATION

QA70HLS | QA100HLS

Materials Lens-PC, Housing-ABS+GF(QA70HLS),
ABS(QA100HLS)

Ambient operating temperature -30°C to +50°C

Protection rating IP66

Vibration resistant and shock-proof

can withstand 15g of vibration and 50g of shock

- Strong signal light emission in outdoor environment with strong sunlight by applying special LED diffusion system
- Excellent vibration and shock resistant structure for superior durability
- Fully enclosed structure that can withstand storm and severe dust environments (IP66)

QA70HLS LED Strobe Beacons

Model number	Voltage	Current	Certificates	Weight	Color
QA70HLS	DC12V-24V	Max.650mA	-	0.23kg	<div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; border-radius: 50%; margin-right: 5px;"></div> R-Red <div style="width: 10px; height: 10px; background-color: yellow; border-radius: 50%; margin-left: 10px; margin-right: 5px;"></div> A-Amber </div>

- Mountable with two bolts on the main structure of the warning light for convenient assembly
 - Suitable for small agricultural machines
 - Flashing rate: 45-55 flashes/min, Outer diameter: 70mm
- ※ DC type model has a free-voltage range of 10V-30V.

QA100HLS LED Strobe Beacons

Model number	Voltage	Current	Certificates	Weight	Color
QA100HLS	DC12V-24V	Max.1.2A	CE	0.39kg	<div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; border-radius: 50%; margin-right: 5px;"></div> R-Red <div style="width: 10px; height: 10px; background-color: yellow; border-radius: 50%; margin-left: 10px; margin-right: 5px;"></div> A-Amber </div>

- Flashing rate: 60-80 flashes/min, Outer diameter: 100mm
- ※ DC type model has a free-voltage range of 10V-30V.



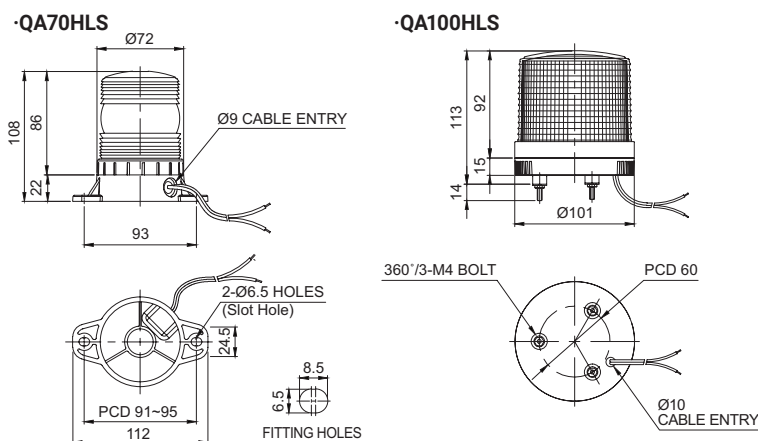
QA70HLS



QA100HLS

Technical Diagram

Units: mm



Wiring Instructions

- QA70HLS: External power line
- UL1015 AWG18(0.75sq) x 2C 400mm
- QA100HLS: External power line
- KSC3304(0.85sq) x 2C 400mm
- This product can be wired regardless of polarity.

Ordering Specification

QA100HLS	-	12/24	-	R
[Model number]		[Voltage]		[Color]
QA70HLS QA100HLS		12/24-DC12V-24V		<div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; border-radius: 50%; margin-right: 5px;"></div> R-Red <div style="width: 10px; height: 10px; background-color: yellow; border-radius: 50%; margin-left: 10px; margin-right: 5px;"></div> A-Amber </div>



QA85LSE

PRODUCT SPECIFICATION

QA85LSE

Materials Lens-PC, Housing-ABS+PC**Ambient operating temperature** -30°C to +50°C**Protection rating** IP65**Flashing rate** LED flash type: 60-80 flashes/min

LED strobe type 1: 60-80 flashes/min

LED strobe type 2: 40-60/min

- Ultra-high brightness LED strobe light for heavy equipment that maximizes light efficiency by applying a special diffused lens
- Emit strong signal light like xenon lamp by compensating for the signal light attenuation that occurs during the day
- Various functions of steady-flash-strobe are available



QA85LSE LED Strobe Beacons

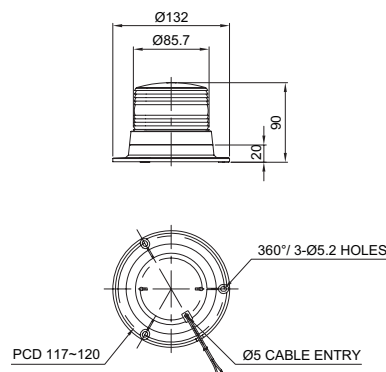
Model number	Voltage	Operation mode	Current	Flashing rate	Certificates	Weight	Color
QA85LSE	DC12V-24V	steady	Max.150mA	-	-	0.16kg	● R-Red
		flashing	Max.330mA	60-80/min			● A-Amber
		Strobe1	Max.180mA	60-80/min			● G-Green
		Strobe2	Max.180mA	40-60/min			● B-Blue

※ DC type model has a free-voltage range of 10V-30V.

Technical Diagram

Units: mm

-QA85LSE



Wiring Instructions

- External power line - UL2464 20AWG x 2C 400mm
- DC Type: Black output line is negative(-).

Customization

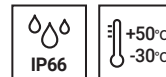
- User selected connector type available upon request

Ordering Specification

QA85LSE	-	12/24	-	R
[Model number]		[Voltage]		[Color]
QA85LSE		12/24-DC12V-24V		● R-Red ● A-Amber ● G-Green ● B-Blue

LED Strobe Beacons for Heavy-Duty Equipment

QA115HLS / QA115HLSP



Adopted Qlight's new developed light diffusion system.

PRODUCT SPECIFICATION

QA115HLS | QA115HLSP

Materials Lens-PC, Housing-PC

Ambient operating temperature -30°C to +50°C

Protection rating IP66

Vibration resistant and shock-proof

can withstand 15g of vibration and 50g of shock

- Strong signal light emission in outdoor environment with strong sunlight by applying special LED diffusion system
- Ability to compensate for signal attenuation phenomenon that occurs during daytime operation with a powerful xenon lamp.
- Can select between pole mount and direct mount type to fit your application needs.

QA115HLS / QA115HLSP LED Strobe Beacons

Model number	Voltage	Current	Certificates	Weight	Color
QA115HLS	DC12V-24V	Max.820mA	CE	1.06kg	● R-Red
QA115HLSP				1.22kg	● A-Amber

· Pole mount type model consists of a shock-proof rubber body; this feature provides excellent durability to vibration and shock

· Flashing rate: 60-80 flashes/min

※ DC type model has a free-voltage range of 10V-30V.



QA115HLS

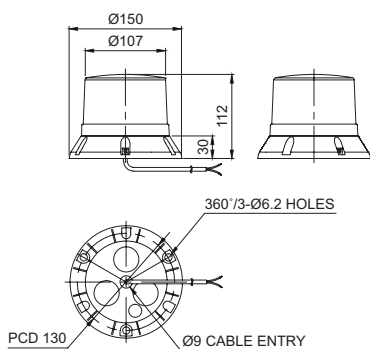


QA115HLSP

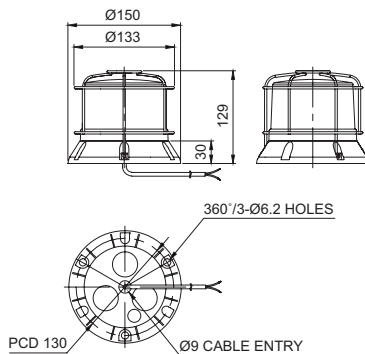
Technical Diagram

Units: mm

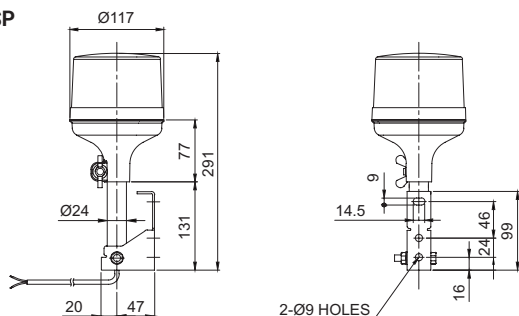
·QA115HLS



·QA115HLS-P



·QA115HLSP



Wiring Instructions

- External power line
- UL2464 18AWG x 2C 400mm
- This product can be wired regardless of polarity.

Ordering Specification

QA115HLSP	-	12/24	-	R
[Model number]		[Voltage]		[Color]
QA115HLS QA115HLSP		12/24-DC12V-24V		● R-Red ● A-Amber

Customization

- User selected connector type available upon request
- Built-in protection cage (QA115HLS-P)



QA115LSE

PRODUCT SPECIFICATION

QA115LSE

Materials Lens-PC, Housing-PC**Ambient operating temperature** -30°C to +50°C**Protection rating** IP66**Vibration resistant and shock-proof**

can withstand 15g of vibration and 50g of shock

- Strong signal light emission in outdoor environment with strong sunlight by applying special LED diffusion system
- Ability to compensate for signal attenuation phenomenon that occurs during daytime operation with a powerful xenon lamp.

QA115LSE LED Strobe Beacons

Model number	Voltage	Current	Certificates	Weight	Color
QA115LSE	DC12V-24V	Max.1A	CE	1.01kg	● A-Amber

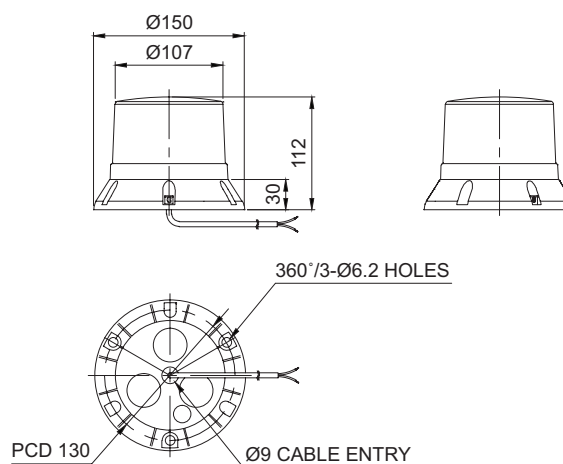
· Flashing rate: 60-80 flashes/min, Outer diameter: 115mm

※ DC type model has a free-voltage range of 10V-30V.

Technical Diagram

Units: mm

·QA115LSE



Wiring Instructions

- External power line
- UL2464 18AWG x 2C 400mm
- This product can be wired regardless of polarity.

Customization

- Connector type wiring products
- Built-in protection cage

Ordering Specification

QA115LSE	-	12/24	-	A
[Model number]		[Voltage]		[Color]
QA115LSE		12/24-DC12V-24V		● A-Amber

LED Strobe Beacons for Heavy-Duty Equipment

QA125HLS / QA125HLSP



Adopted Qlight's new developed light diffusion system.

PRODUCT SPECIFICATION

QA125HLS | QA125HLSP

Materials Lens-PC, Housing-PC
Ambient operating temperature -30°C to +50°C
Protection rating IP66
Vibration resistant and shock-proof
 can withstand 15g of vibration and 50g of shock
Flashing rate 60-80 flashes/min

- Ability to compensate for signal attenuation phenomenon that occurs during daytime operation with a powerful xenon lamp.
- Can select between pole mount and direct mount type to fit your application needs.

QA125HLS LED Strobe Beacons

Model number	Voltage	Current	Certificates	Weight	Color
QA125HLS	DC12V-24V	Max.1.65A	-	0.55kg	<div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; border-radius: 50%; margin-right: 5px;"></div> R-Red <div style="width: 10px; height: 10px; background-color: yellow; border-radius: 50%; margin-left: 10px; margin-right: 5px;"></div> A-Amber </div>

· Flashing rate: 60-80 flashes/min, Outer diameter: 125mm

※ DC type model has a free-voltage range of 10V-30V.

QA125HLSP LED Strobe Beacons

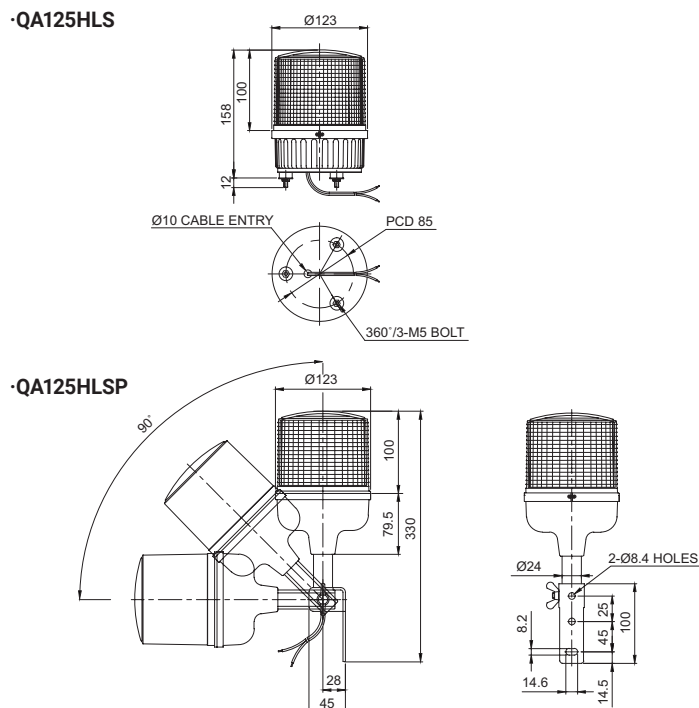
Model number	Voltage	Current	Certificates	Weight	Color
QA125HLSP	DC12V-24V	Max.1.65A	-	1.00kg	<div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; border-radius: 50%; margin-right: 5px;"></div> R-Red <div style="width: 10px; height: 10px; background-color: yellow; border-radius: 50%; margin-left: 10px; margin-right: 5px;"></div> A-Amber </div>

· Flashing rate: 60-80 flashes/min, Outer diameter: 125mm

※ DC type model has a free-voltage range of 10V-30V.

Technical Diagram

Units: mm



QA125HLS



QA125HLSP

Wiring Instructions

- External power line
- UL1015 AWG18(0.75sq) x 2C 400mm
- This product can be wired regardless of polarity.

Ordering Specification

QA125HLS	-	12/24	-	R
[Model number]		[Voltage]		[Color]
QA125HLS QA125HLSP		12/24-DC12V-24V		<div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; border-radius: 50%; margin-right: 5px;"></div> R-Red <div style="width: 10px; height: 10px; background-color: yellow; border-radius: 50%; margin-left: 10px; margin-right: 5px;"></div> A-Amber </div>

QA140HLSP

Ø140mm high-intensity LED strobe Beacons for heavy-duty equipment



QA140HLSP

PRODUCT SPECIFICATION

QA140HLSP

Materials Housing-PC, Lens-PC, Diffusion lens-PC, Reflector-Heat resistant ABS, Bracket-STS

Ambient operating temperature -30°C to +50°C

Protection rating IP66

Vibration resistant and shock-proof

can withstand 15g of vibration and 50g of shock

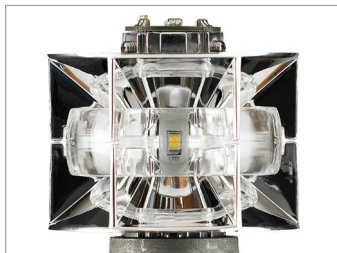
Flashing rate 60-80 flashes/min

Compliant with RoHS directive

- Applies a special built-in filter to compensate for shortcomings of the LED warning light when attenuation to sunlight in bright outdoor environments occur
- Wide angle filter provides excellent visibility from top to bottom
- Equipped with angel-adjustable bracket
- Designed for heavy equipment applications

Superior light output through the Qlight's exclusive diffusion lens and reflector

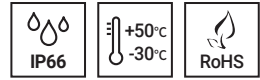
The inner ring-shaped diffusion lens is specially designed to help minimize the loss of light output. The inner diffusion lens and reflector structure allows for light to be spread both horizontally and vertically for accurate signal light transmission.



Ensuring visibility with wide angle light output

To compliment the drawbacks of a typical one directional LED, The light emitting structure is designed to secure a wide viewing angle. Thus, eliminating potential disadvantages of mounting a typical LED at a higher position. It's design allows for easy visibility at close ranges and high mounting positions.





Vibration resistant, shock-proof, dustproof, and waterproof products

Durable and enclosed product structure was produced for direct exposure to the environments of heavy equipment such as vibration and shock, dust and water.

Bendable pole structure prevents damage from external impact

Pole mount product is designed to prevented damage from external impact by bending in the opposite direction when impact occurs.



Excellent durability and shockproof by using high hardness PC material for the lens.

QA140HLSP LED Strobe Beacons

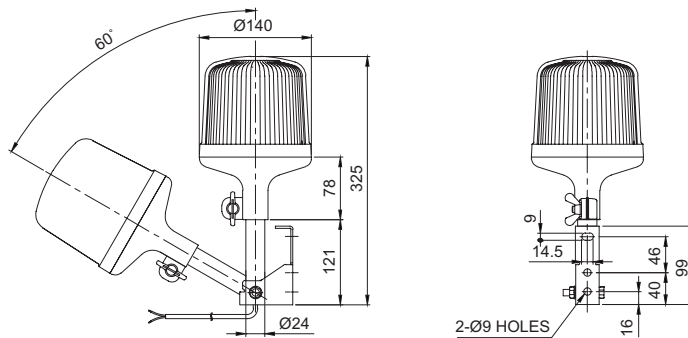
Model number	Brightness	Voltage	Current	Certificates	Weight	Color
QA140HLSP	110Lux	DC12V	820mA		1.16kg	● R-Red
		DC24V	670mA			● A-Amber

- Flashing rate: 60-80 flashes/min, Outer diameter: 140mm
- CE compliant: DC24V

Technical Diagram

Units: mm

QA140HLSP



Wiring Instructions

- External power line - KSC3304 0.85sq x 2C 400mm
- This product have (+) and (-) polarity.

Ordering Specification

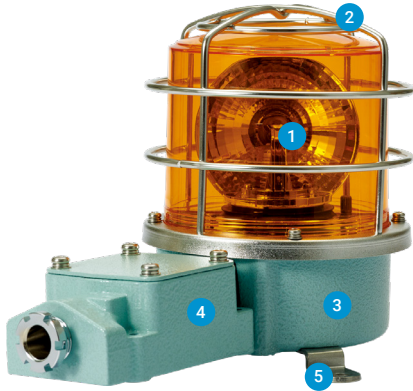
QA140HLSP	-	12	-	R
[Model number]		[Voltage]		[Color]
QA140HLSP		12-DC12V 24-DC24V		● R-Red ● A-Amber

Customization

- Connector type wiring products

SH1 / SH2 Series

Superior durability with fully enclosed structure and corrosion resistance, suitable for vessels and heavy industry applications



PRODUCT SPECIFICATION

SH1 Series | SH2 Series

Materials Lens-PC, Housing-Al, STS316L(SH1-SUS)

Protection cage-ST316L, Reflector-PC, Reflector for bulb type-Heat resistant ABS, Bracket-ST316L

Protection rating IP66

Housing standard color MUNSELL No. 7.5BG 7/2

Cable entry 1/2" PF

- Aluminum housing and polycarbonate lens material provides excellent impact resistance under seismic conditions
- STS housing provides superior durability and corrosion resistance(SH1-SUS)
- Excellent hermetic structure that blocks water and dust
- Can select a variety of light sources (Bulb, LED, and xenon) for your application needs and environmental conditions
- Terminals located inside the terminal box or product

1 Lenses

- Utilizes a strong and durable polycarbonate material with excellent shock and vibration resistance
- The lens surface has two types depending on the light source function-Light diffusion type and light transmission type



Light transmission type

LED revolving type
Bulb revolving type
SH()LR | SH()



Light diffusion type

LED steady/flashing type
xenon lamp strobe type
SH()L | SH()S

2 Protection cage

- The durable protection cage is made of corrosion resistant stainless steel that prevents damage to the lens from external contact
- Materials: STS316L

3 Housing

- The special aluminum body housing features superior durability
- STS housing provides superior durability and corrosion resistance(SH1-SUS)
- The housing is corrosion resistant from a special anodized surface treatment process
- Materials: Al, STS316L(SH1-SUS)

4 Terminal box

- Terminal box is located on the side of housing for easy wiring
- Materials: Al

5 Brackets

- Stainless steel mounting bracket is conveniently attached to the outer surface of the product
- Materials: STS316L

A Variety of Selectable Light Source and Function Combinations

You can select from a variety of light sources for your work environment, condition, and purpose. Basic specifications are as follows.

- LED revolving type
- LED steady/flashing type
- xenon lamp strobe type
- Bulb revolving type

Customization

- LED Strobe type
- LED revolving type

Product Categories



Standard type

- Protection cage or terminal box not attached
- Terminals located inside the housing
- Use in environments that has low probability of damage to the lens due to external forces
- SH1/SH2 Series is available in this model



Built-in terminal box

- Equipped with a terminal box for easy wiring
- Use in environments that has low probability of damage to the lens due to external forces
- SH1T()/ SH2T() is available in this model



Protection cage mounted type

- Equipped with a Protection cage
- Terminals located inside the housing
- Use in environments that has low probability of damage to the lens due to external forces
- SH1()P/SH2()P is available in this model

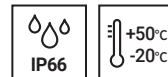


Terminal box and protection cage mounted type

- Equipped with a protection cage and a terminal box
- Terminal box enables easy wiring
- Damage to the lens from external forces can be prevented with protection cage
- SH1T()P/ SH2T()P is available in this model

Heavy-Duty LED Revolving Beacons for Vessels and Heavy Industry Applications

SH1LR / SH2LR



SH1LR - Ø125mm, SH2LR - Ø150mm

PRODUCT SPECIFICATION

SH1LR | SH2LR

Materials Lens-PC, Housing-AI, STS316L(SH1LR-SUS)
Protection cage-STS316L, Reflector-PC, Bracket-STS316L
Ambient operating temperature -20°C to +50°C
Protection rating IP66
Housing standard color MUNSELL No. 7.5BG 7/2
Cable entry 1/2" PF
Revolving speed 120-140RPM

- Features high visibility in all directions with special concentrated LED light structure and multi side reflector
- STS housing provides superior durability and corrosion resistance (SH1LR-SUS, SH1LRP-SUS)

SH1LR LED Revolving Beacons

Model number	Voltage	Current	Certificates	Color
SH1LR Standard type	DC12V	420mA	CCS	R-Red
SH1LR-SUS Standard type	DC24V	260mA		A-Amber
SH1LRP Protection cage type	AC110V	80mA		G-Green
SH1LRP-SUS Protection cage type	AC220V	50mA		B-Blue
SH1TLR Terminal box type				
SH1TLRP Protection cage and terminal box type				

※ CCS compliant: SH1LR / SH1LRP only

SH2LR LED Revolving Beacons

Model number	Voltage	Current	Certificates	Color
SH2LR Standard type	DC12V	420mA		R-Red
SH2LRP Protection cage type	DC24V	260mA		A-Amber
SH2TLR Terminal box type	AC110V	80mA		G-Green
SH2TLRP Protection cage and terminal box type	AC220V	50mA		B-Blue



SH1LRP



SH2TLR

SH1LR | SH2LR LED Revolving Beacons Specification Category and Products Weight Chart

Type	SH1 Series	SH2 Series
Lens diameter	Φ125mm	Φ150mm
Standard	SH1LR (1.64kg) SH1LR-SUS (2.08kg)	SH2LR (1.69kg)
Built-in protection cage	SH1LRP (1.89kg) SH1LRP-SUS (2.33kg)	SH2LRP (1.98kg)
Built-in terminal box	SH1TLR (2.10kg)	SH2TLR (2.15kg)
Built-in protection cage & Terminal box	SH1TLRP (2.35kg)	SH2TLRP (2.44kg)

※ Product weight is based on AC type.

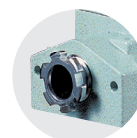
Ordering Specification

SH1LR	-	12	-	R	-	SUS
[Model number]		[Voltage]		[Color]		[Housing materials]
SH1LR / SH1LRP		12-DC12V 24-DC24V 110-AC110V 220-AC220V		R-Red A-Amber G-Green B-Blue		None - AI SUS - STS316L
SH1TLR / SH1TLRP SH2LR / SH2LRP SH2TLR / SH2TLRP						

SH1LR / SH2LR models are equipped with flexible connector, and SH1TLR / SH2TLR models are equipped with 15C nipple at cable entry.



Flexible connector



15C nipple

Heavy-Duty Steady/Flash Signal Beacons for Vessels and Heavy Industry Applications

SH1L / SH2L



SH1LP



SH2TL






PRODUCT SPECIFICATION

SH1L | SH2L

Materials Lens-PC, Housing-Al, STS316L(SH1L-SUS)
Protection cage-ST316L, Reflector-Heat resistant ABS
Bracket-ST316L
Ambient operating temperature -30°C to +50°C
Protection rating IP66
Housing standard color MUNSELL No. 7.5BG 7/2
Cable entry 1/2" PF
Flashing rate 60-80 flashes/min





- Uniform and clear light diffusion with multi layered LED light distribution reflector
- Built-in switch for selection between steady and flashing mode
- STS housing provides superior durability and corrosion resistance(SH1L-SUS, SH1LP-SUS)

SH1L LED Steady/Flashing Signal Beacons

Model number		Voltage	Current	Certificates	Color
SH1L	Standard type	DC12V-24V	Max.300mA		 R-Red
SH1L-SUS	Standard type				 A-Amber
SH1LP	Protection cage type	AC110V	70mA		 G-Green
SH1LP-SUS	Protection cage type				 B-Blue
SH1TL	Terminal box type	AC220V	35mA		
SH1TLP	Protection cage and terminal box type				

※ CCS compliant: SH1L / SH1LP only

SH2L LED Steady/Flashing Signal Beacons

Model number		Voltage	Current	Certificates	Color
SH2L	Standard type	DC12V-24V	Max.300mA	-	 R-Red
SH2LP	Protection cage type	AC110V	70mA		 A-Amber
SH2TL	Terminal box type				 G-Green
SH2TLP	Protection cage and terminal box type	AC220V	35mA		 B-Blue

SH1L | SH2L LED Steady/Flashing Signal Beacons Specification Category and Products Weight Chart

Type	SH1 Series	SH2 Series
Lens diameter	Φ125mm	Φ150mm
Standard	SH1L (1.49kg)	SH2L (1.57kg)
	SH1L-SUS (1.93kg)	
Built-in protection cage	SH1LP (1.74kg)	SH2LP (1.86kg)
	SH1LP-SUS (2.18kg)	
Built-in terminal box	SH1TL (1.95kg)	SH2TL (2.03kg)
Built-in protection cage & Terminal box	SH1TLP (2.20kg)	SH2TLP (2.32kg)

※ Product weight is based on AC type.

SH1L / SH2L models are equipped with flexible connector, and SH1TL / SH2TL models are equipped with 15C nipple at cable entry.



Flexible connector



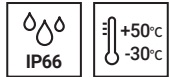
15C nipple

Ordering Specification

SH2L	-	220	-	R	-	SUS
[Model number]		[Voltage]		[Color]		[Housing materials]
SH1L / SH1LP		12/24-DC12V-24V 110-AC110V 220-AC220V		● R-Red ● A-Amber ● G-Green ● B-Blue		None - Al SUS - STS316L
SH1TL / SH1TLP SH2L / SH2LP SH2TL / SH2TLP						

Heavy-Duty Xenon Strobe Signal Beacons for Vessels and Heavy Industry Applications

SH1S / SH2S



PRODUCT SPECIFICATION

SH1S | SH2S

Materials Lens-PC, Housing-Al, STS316L(SH1S-SUS)
Protection cage-ST316L, Bracket-ST316L
Ambient operating temperature -30°C to +50°C
Protection rating IP66
Housing standard color MUNSELL No. 7.5BG 7/2
Cable entry 1/2" PF
Flashing rate 60-80 flashes/min

- Convenient lamp change with connector type connection structure
- STS housing provides superior durability and corrosion resistance(SH1S-SUS, SH1SP-SUS)



SH1S



SH2TS

SH1S Xenon Strobe Signal Beacons

Model number	Voltage	Current	Xenon lamp			Certificates	Color
			Spec	Standard	Parts no		
SH1LR	Standard type	DC12V	Max.				
SH1LR-ST3	Standard type	-24V	1.3A				
SH1LRP	Protection cage type			EUB0641			R-Red A-Amber G-Green B-Blue
SH1LRP-ST3	Protection cage type	AC110V	160mA	200V -1A(G)	48		
SH1TLR	Terminal box type			-550V			
SH1TLRP	Protection cage and terminal box type	AC220V	140mA	U type			

※ CE compliant: DC12V/24V, CCS(SH1S / SH1SP only)

SH2S Xenon Strobe Signal Beacons

Model number	Voltage	Current	Xenon lamp			Certificates	Color
			Spec	Standard	Parts no		
SH2S	Standard type	DC12V-24V	Max.1.3A				
SH2SP	Protection cage type			EUB0641			R-Red A-Amber G-Green B-Blue
SH2TS	Terminal box type	AC110V	160mA	200V -1A(G)	48		
SH2TSP	Protection cage and terminal box type			-550V			
		AC220V	140mA	U type			

※ CE compliant: DC12V/24V

SH1S | SH2S Xenon Strobe Signal Beacons Specification Category and Products Weight Chart

Type	SH1S Series		SH2S Series	
Lens diameter	Φ125mm		Φ150mm	
Standard		SH1S (1.11kg)		SH2S (1.19kg)
		SH1S-SUS (1.55kg)		
Built-in protection cage		SH1SP (1.36kg)		SH2SP (1.48kg)
		SH1SP-SUS (1.80kg)		
Built-in terminal box		SH1TS (1.57kg)		SH2TS (1.65kg)
Built-in protection cage & Terminal box		SH1TSP (1.82kg)		SH2TSP (1.94kg)

※ Product weight is based on AC type.

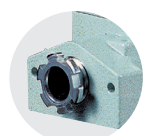
Ordering Specification

SH1S	-	110	-	R	-	SUS
[Model number]		[Voltage]		[Color]		[Housing materials]
SH1S / SH1SP		12/24-DC12V-24V		R-Red		None - Al
		110-AC110V		A-Amber		SUS - STS316L
		220-AC220V		G-Green		
SH1TS / SH1TSP				B-Blue		
SH2S / SH2SP						
SH2TS / SH2TSP						

SH1S /SH2S models are equipped with flexible connector, and SH1TS /SH2TS models are equipped with 15C nipple at cable entry.



Flexible connector



15C nipple



SH1



SH2T

PRODUCT SPECIFICATION

SH1 | SH2

Materials Lens-PC, Housing-AI, STS316L(SH1-SUS)
 Protection cage-ST316L, Reflector-Heat resistant ABS
 Bracket-ST316L
Ambient operating temperature -20°C to +50°C
Protection rating IP66
Housing standard color MUNSELL No. 7.5BG 7/2
Cable entry 1/2" PF
Revolving speed 120-140RPM

- Excellent light diffusion effect with multi faced reflector
- Adopts a special power transmission system that reduces noise and wear
- STS housing provides superior durability and corrosion resistance(SH1-SUS, SH1P-SUS)

SH1 Bulb Revolving Beacons

Model number	Voltage	Current	Bulb			Certificates	Color
			Spec	Standard	Parts no		
SH1	Standard type	DC12V 1.55A	12V15W	G23 15S	17	CCS	R-Red
SH1-SUS	Standard type	DC12V 1.55A	12V15W	G23 15S	17		
SH1P	Protection cage type	DC24V 850mA	24V15W	G23 15S	18	CE	A-Amber
SH1P-SUS	Protection cage type	DC24V 850mA	24V15W	G23 15S	18		G-Green
SH1T	Terminal box type	AC110V 200mA	12V15W	G23 15S	17		B-Blue
SH1TP	Protection cage and terminal box type	AC220V 100mA	12V15W	G23 15S	17		

※ CE compliant: DC24V, CCS(SH1 / SH1P only)

SH2 Bulb Revolving Beacons

Model number	Voltage	Current	Bulb			Certificates	Color
			Spec	Standard	Parts no		
SH2	Standard type	DC12V 1.55A	12V15W	G23 15S	17	CE	R-Red
SH2P	Protection cage type	DC24V 850mA	24V15W	G23 15S	18		A-Amber
SH2T	Terminal box type	AC110V 200mA	12V15W	G23 15S	17		G-Green
SH2TP	Protection cage and terminal box type	AC220V 100mA	12V15W	G23 15S	17		B-Blue

※ CE compliant: DC24V

SH1 | SH2 Bulb Revolving Beacons Specification Category and Products Weight Chart

Type	SH1 Series	SH2 Series
Lens diameter	Φ125mm	Φ150mm
Standard	SH1 (1.61kg) SH1-SUS (2.05kg)	SH2 (1.77kg)
Built-in protection cage	SH1P (1.86kg) SH1P-SUS (2.30kg)	SH2P (2.06kg)
Built-in terminal box	SH1T (2.07kg)	SH2T (2.23kg)
Built-in protection cage & Terminal box	SH1TP (2.32kg)	SH2TP (2.52kg)

※ Product weight is based on AC type.

SH1/SH2 models are equipped with flexible connector, and SH1T/SH2T models are equipped with 15C nipple at cable entry.



Flexible connector



15C nipple

Ordering Specification

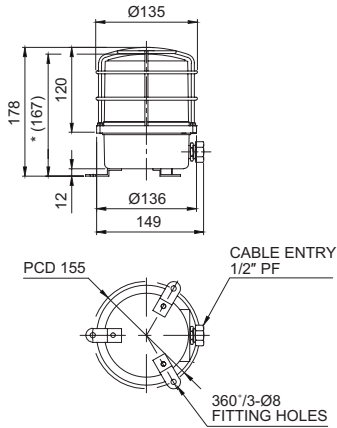
SH1T	220	R	SUS
[Model number]	[Voltage]	[Color]	[Housing materials]
SH1 / SH1P	12-DC12V 24-DC24V 110-AC110V 220-AC220V	R-Red A-Amber G-Green B-Blue	None - AI SUS - STS316L
SH1T / SH1TP SH2 / SH2P SH2T / SH2TP			

SH1 / SH2 Series

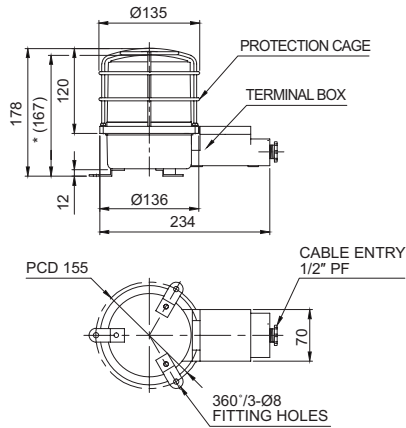
Technical Diagram

Units: mm

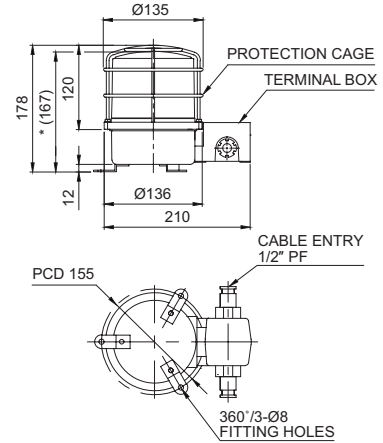
·SH1LRP(-SUS) / SH1LP(-SUS) / SH1SP(-SUS) / SH1P(-SUS)



·SH1TLRP / SH1TLP / SH1TSP / SH1TP

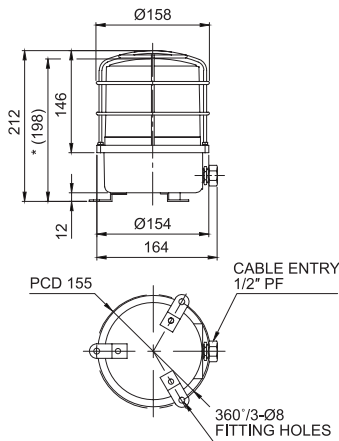


·SH1LR-2TP / SH1L-2TP / SH1S-2TP / SH1-2TP (Cable entry 2EA type)

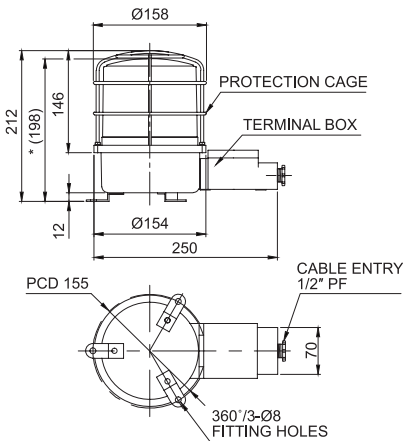


※ *(167) represents SH1LR(-SUS)/ SH1L(-SUS)/SH1S(-SUS)/ SH1(-SUS), SH1TLR/ SH1TL/ SH1TS/ SH1T size without protection cage.

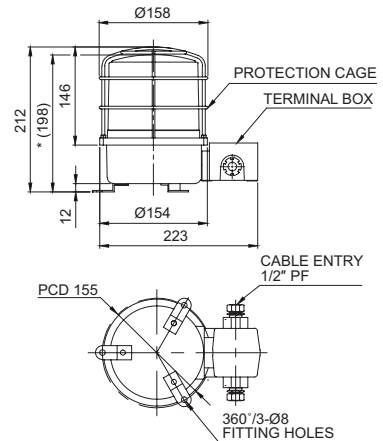
·SH2LRP / SH2LP / SH2SP / SH2P



·SH2TLRP / SH2TLP / SH2TSP / SH2TP



·SH2LR-2TP / SH2L-2TP / SH2S-2TP / SH2-2TP (Cable entry 2EA type)



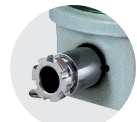
※ *(198) represents SH2 Series size without protection cage.

Wiring Instructions

· SH1(-SUS), SH1LR(-SUS), SH2, SH2LR : Black output line is negative(-).

Customization

- 3/4" PF Cable entry
Standard cable entry is 1/2" PF, 3/4" PF is customization
- Built-in cable gland type
Flexible connector is equipped to the standard cable entry
- Brass housing product
Color will be MUNSELL No. 7.5BG 7/2 when released.
- 2T type has 2 cable entries in the terminal box
2 cable entries terminal box is a customized add-on.



Built-in cable gland



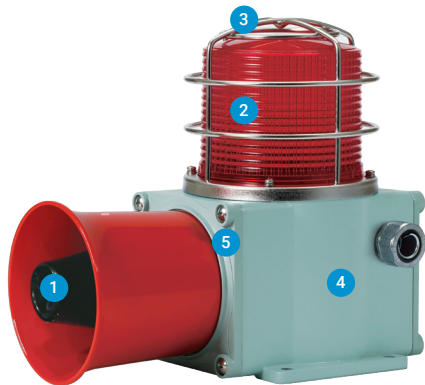
Brass housing product



2 cable entries terminal box model

SHD / SHD2 Series

Signal beacon and electronic sounder combinations with excellent durability and perfectly enclosed structure, designed for vessels and heavy industry applications



PRODUCT SPECIFICATION

SHD | SHD2

Materials Lens-PC, Housing-Al, Protection cage-STS316L, Reflector-PC, Reflector-Heat resistant ABS

Ambient operating temperature

-20°C to +50°C, -30°C to +50°C

Protection rating IP66

Housing standard color MUNSELL No. 7.5BG 7/2

Cable entry 1/2" PF

- Signal beacon and electronic sounder combination models for vessels and heavy industries applications
- Aluminum housing and polycarbonate lens material provides excellent durability under seismic conditions
- Excellent hermetic structure that blocks water and dust
- Superior impact and shock resistance
- You can select a variety of sound and light sources (bulb, LED and xenon)
- Equipped with a wire guard
- Terminal box located inside the housing
- Can adjust sound volume and select sound pattern with the switches built inside the products

- 1** A variety of selectable warning sounds and sound messages
- You can convey specific information with a variety of 20 warning sounds and voice messages.

Sound	Pattern	Ch	Sound tone
WS	5 Warning sounds	Ch1	Fire.A-ANG
		Ch2	Emergency WA-U(Yelp)
		Ch3	Ambulance PI-PO(Hi-low)
		Ch4	Machinery Fault
		Ch5	High Expansion
WP	5 Special warning sounds	Ch1	Fire.A-ANG
		Ch2	Abandon Alarm
		Ch3	Machinery Fault
		Ch4	High Expansion
		Ch5	7 Short Pl. / 1 Long
WM	5 Melodies	Ch1	Sweet Home
		Ch2	For Elise
		Ch3	Cuckoo's Waltz
		Ch4	Piano Sonata
		Ch5	Turkish March
WA	5 Alarms	Ch1	Beep Intermittent
		Ch2	Door Chime
		Ch3	Phone Ring
		Ch4	PI.PI.PI Short
		Ch5	Tripping Beat
WV	5 Customizable sound messages	Ch1- Ch5	Customized sound tones

A Variety of Selectable Light Source and Function Combinations

You can select from a variety of light sources for your work environment, condition, and purpose. Basic specifications are as follows.

- LED revolving type
- LED steady/flashing type
- xenon lamp strobe type
- Bulb revolving type

Customization

- LED Strobe type
- LED revolving type

- 2** Lens
- Polycarbonate lens material provides excellent impact resistance
- 3** Protection cage
- The durable wire guard is made of corrosion resistant stainless steel that prevents damage to the lens from external contact
 - Materials: STS316L
- 4** Housing
- The special aluminum body housing features superior durability
 - The housing is corrosion resistant from a special anodized surface treatment process
 - Materials: Al
- 5** Fully enclosed structure
- The tightly sealed warning light structure is waterproof and dustproof
 - Protection rating: IP66

SHD Series Product Category Chart

SHD Series		Light Source and Function	SHD2 Series	
Standard type	Built-in protection cage		Standard type	Built-in protection cage
		LED revolving type		
SHDLR	SHDLRP		SHD2LR	SHD2LRP
		LED steady/flashing type		
SHDL	SHDLP		SHD2L	SHD2LP
		Xenon lamp strobe type		
SHDS	SHDSP		SHD2S	SHD2SP
		Bulb revolving type		
SHD	SHDP		SHD2	SHD2P



SHDLR / SHDLRP LED Revolving Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SHDLR SHDLRP	DC12V	1.7A	·WS-5 Warning sounds : Max.114dB	CCS CE	·SHDLR DC-3.21kg AC-3.91kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.3A	·WP-5 Special warning sounds : Max.114dB			
	AC110V	330mA	·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB		·SHDLRP DC-3.46kg AC-4.16kg	
	AC220V	180mA	·WV-5 Customizable voices : 108-113dB			

- Features high visibility in all directions with special concentrated LED light structure and multi side reflector
- Revolving speed: 120-140RPM
- Ambient operation temperature: -20°C to +50°C
- ※ CE compliant: DC24V, AC220V

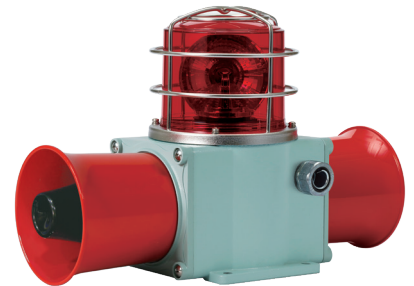


SHDLR

SHD2LR / SHD2LRP LED Revolving Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SHD2LR SHD2LRP	DC12V	3.5A	·WS-5 Warning sounds : Max.114dB x 2		·SHD2LR DC-4.26kg AC-4.97kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	2.2A	·WP-5 Special warning sounds : Max.114dB x 2			
	AC110V	600mA	·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2		·SHD2LRP DC-4.51kg AC-5.22kg	
	AC220V	300mA	·WV-5 Customizable voices : 108-113dB x 2			

- Uniform and clear light diffusion with multi layered LED light distribution reflector
- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch)
- Ambient operation temperature: -30°C to +50°C
- ※ CE compliant: DC24V, AC220V



SHD2LRP

SHDL / SHDLP LED Steady/Flashing Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SHDL SHDLP	DC12V	2A	·WS-5 Warning sounds : Max.114dB	CCS CE	·SHDL DC-3.02kg AC-3.39kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.5A	·WP-5 Special warning sounds: Max.114dB			
	AC110V	370mA	·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB		·SHDLP DC-3.27kg AC-3.64kg	
	AC220V	200mA	·WV-5 Customizable voices : 108-113dB			

- Uniform and clear light diffusion with multi layered LED light distribution reflector
- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch)
- Ambient operation temperature: -30°C to +50°C
- ※ CE compliant: DC24V, AC220V

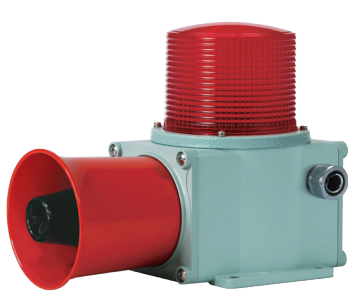
SHD2L / SHD2LP LED Steady/Flashing Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SHD2L SHD2LP	DC12V	3.5A	·WS-5 Warning sounds : Max.114dB x 2		·SHD2L DC-4.07kg AC-4.45kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	2.2A	·WP-5 Special warning sounds : Max.114dB x 2			
	AC110V	600mA	·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2		·SHD2LP DC-4.32kg AC-4.70kg	
	AC220V	300mA	·WV-5 Customizable voices : 108-113dB x 2			

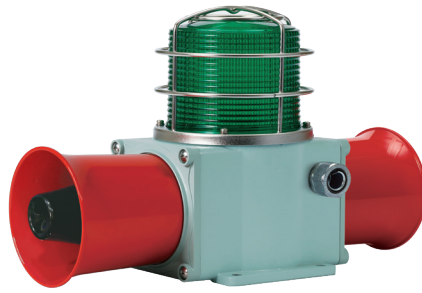
- ※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch4 / WA-Ch4.
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Signal Beacon & Electronic Sounder for Vessels and Heavy Industry Applications

SHD / SHD2 Series



SHDS



SHD2S

SHD/SHD2 Series are equipped with flexible connector at cable entry. Cable gland is an optional item.



Flexible connector



Cable gland

SHDS / SHDSP Xenon Strobe Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Xenon lamp			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHDS SHDSP	DC12V	2.5A	200V -550V	EUB0641 -1A(G) U type	48	·WS-5 Warning sounds: Max.114dB ·WP-5 Special warning sounds: Max.114dB ·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SHDS DC-3.05kg AC-3.38kg	
	DC24V	1.4A							
	AC110V	360mA							
	AC220V	220mA							

- Flashing rate: 60-80 flashes/min
- Ambient operating temperature: -30°C to +50°C
- ※ CE compliant: DC24V, AC220V

SHD2S / SHD2SP Xenon Strobe Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Xenon lamp			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHD2S SHD2SP	DC12V	4A	200V -550V	EUB0641 -1A(G) U type	48	·WS-5 Warning sounds: Max.114dB x 2 ·WP-5 Special warning sounds : Max.114dB x 2 ·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2 ·WV-5 Customizable voices: 108-113dB x 2	-	·SHD2S DC-4.11kg AC-4.44kg ·SHD2SP DC-4.36kg AC-4.69kg	
	DC24V	2.4A							
	AC110V	580mA							
	AC220V	330mA							

SHD / SHDP Bulb Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Bulb			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHD SHDP	DC12V	3A	12V15W	G23 15S	17	·WS-5 Warning sounds: Max.114dB ·WP-5 Special warning sounds: Max.114dB ·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SHD DC-3.18kg AC-3.89kg ·SHDP DC-3.43kg AC-4.14kg	
	DC24V	2A	24V15W	G23 15S	18				
	AC110V	450mA	12V15W	G23 15S	17				
	AC220V	230mA	12V15W	G23 15S	17				

- Revolving speed: 120-140RPM
- Ambient operating temperature: -20°C to +50°C
- ※ CE compliant: DC24V, AC220V

SHD2 / SHD2P Bulb Revolving Signal Beacon and Electronic Sounder Combination

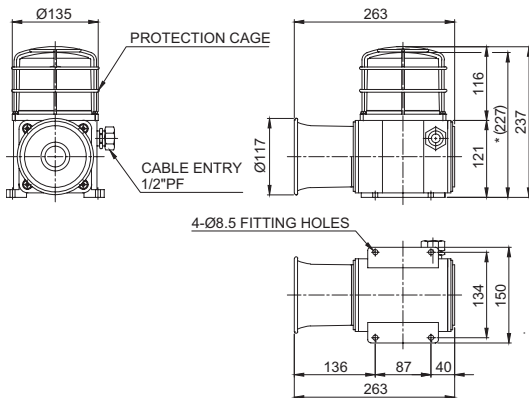
Model number	Voltage	Current	Bulb			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHD2 SHD2P	DC12V	4.5A	12V15W	G23 15S	17	·WS-5 Warning sounds: Max.114dB x 2 ·WP-5 Special warning sounds : Max.114dB x 2 ·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2 ·WV-5 Customizable voices: 108-113dB x 2	-	·SHD2 DC-4.23kg AC-4.95kg ·SHD2P DC-4.48kg AC-5.20kg	
	DC24V	2.7A	24V15W	G23 15S	18				
	AC110V	600mA	12V15W	G23 15S	17				
	AC220V	300mA	12V15W	G23 15S	17				

- ※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch4 / WA-Ch4.
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

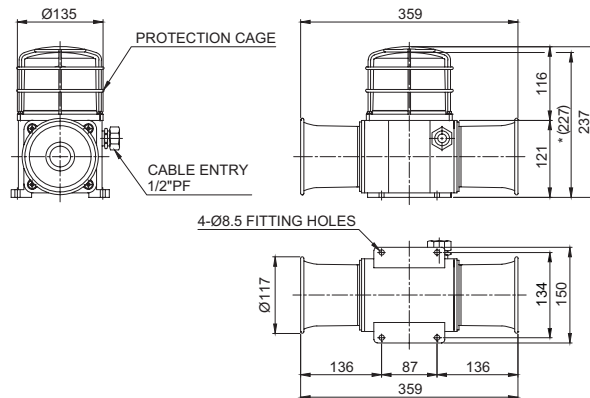
Technical Diagram

Units: mm

·SHDP



·SHD2P



※ *(227) represents SHD/SHD2 size without protection cage.

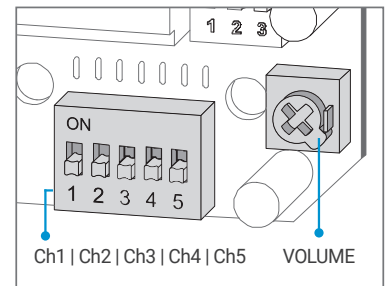
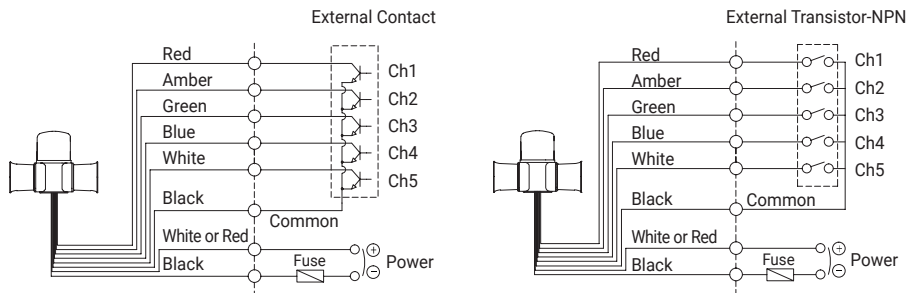
Sound Selection Instructions and Wiring

·SHD Series-DC/AC

·SHD2 Series-DC/AC

- Customization: External contact(LC)

- Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Wiring Instructions

- SHD, SHDLR, SHD2, SHD2LR - Black output line is negative(-).

Sound tones for standard model

Sound	Built-in sound	Ch	Sound tone	Sound	Built-in sound	Ch	Sound tone
WS	5 Warning sounds	Ch1	Fire.A-ANG	WM	5 Melodies	Ch1	Sweet Home
		Ch2	Emergency WA-U(Yelp)			Ch2	For Elise
		Ch3	Ambulance PI-PO(Hi-low)			Ch3	Cuckoo's Waltz
		Ch4	Machinery Fault			Ch4	Piano Sonata
		Ch5	High Expansion			Ch5	Turkish March
WP	5 Special warning sounds	Ch1	Fire.A-ANG	WA	5 Alarms	Ch1	Beep Intermittent
		Ch2	Abandon Alarm			Ch2	Door Chime
		Ch3	Machinery Fault			Ch3	Phone Ring
		Ch4	High Expansion			Ch4	PI.PI.PI Short
		Ch5	7 Short PI. / 1 Long			Ch5	Tripping Beat
				WV	5 Customizable voices	Ch1- Ch5	Customized sound

※ Standard model has 5 warning sounds(WS), 5 special warning sounds(WP), 5 melodies(WM), 5 alarms(WA) and 5 customizable voices(WV).

Ordering Specification

SHD2L	WA	24	R
[Model number]	[Sound]	[Voltage]	[Color]
SHDLR / SHDLRP	WS-Warning sounds	12-DC12V	● R-Red
SHD2LR / SHD2LRP	WP-Special warning sounds	24-DC24V	● A-Amber
SHDL / SHDLP	WM-Melodies	110-AC110V	● G-Green
SHD2L / SHD2LP	WA-Alarms	220-AC220V	● B-Blue
SHDS / SHDSP	WV-Customizable voices		
SHD2S / SHD2SP			
SHD / SHDP			
SHD2 / SHD2P			

Customization

- 3/4" PF Cable entry(Standard: 1/2"PF)
- Cable gland type
- Customized external sound line type available: SHD/SHD2 Series have built-in switch for sound tone selection

SCD Series

Light weight Signal Beacon and Electronic Sounder combinations with polycarbonate housing for vessels and heavy industry applications



PRODUCT SPECIFICATION

SCDF | SCDW

Materials Lens-PC, Housing-PC+GF, Protection cage-STS316L

Reflector-PC, Reflector-Heat resistant ABS

Ambient operating temperature

-20°C to +50°C: SCDFLR, SCDWLR, SCDF, SCDW

-30°C to +50°C: SCDFL, SCDWL, SCDFS, SCDWS

Protection rating IP66

Cable entry 1/2" PF

- Signal Beacon and Electronic Sounder combinations for vessels and heavy industrial applications
- Light weight model with special polycarbonate (PC+GF) housing
- Excellent hermetic structure that blocks water and dust
- Superior impact and shock resistance
- Prevents damage from external contact with recessed horn structure, high volume output possible with the extended length of the horn housing
- Easy wiring and sound control with the terminal box attached on the side of housing
- Standard model comes with a protection cage equipped
- Can select a variety of light sources and sound pattern combinations
- Detachable mounting bracket structure enables product to be either self stand type or wall mount type
- Can adjust sound volume and select sound pattern with the switches built inside the units

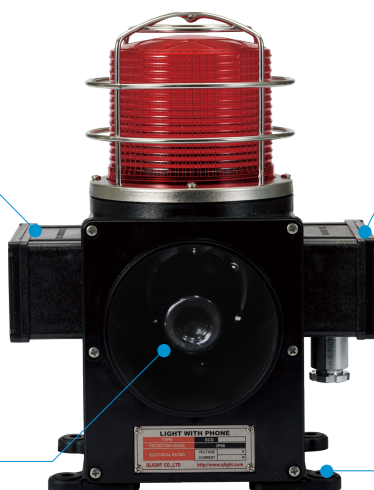
Audible sound since the sound control board is located separately from the main board



Easy wire configuration possible with terminal box located on the side of the housing











Recessed horn structure protects it from damage by external forces



Detachable mounting bracket structure enables product to be either self stand type or wall mount type

SCD Series Product Category Chart

	LED Revolving type	LED Steady/Flashing type	Xenon Strobe type	Bulb Revolving type
Self mount	 SCDFLR	 SCDFL	 SCDFS	 SCDF
Wall mount	 SCDWLR	 SCDWL	 SCDWS	 SCDW

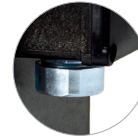


SCDF Series
Self mount

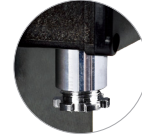


SCDW Series
Wall mount

SCDF / SCDW Series are equipped with flexible connector at cable entry. Cable gland is an optional item.




Flexible connector




Cable gland

SCDFLR / SCDWLR LED Revolving Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color	
SCDFLR SCDWLR	DC12V	1.7A	· WS-5 Warning sounds: Max.113dB		2.70kg	<div>● R-Red</div> <div>● A-Amber</div> <div>● G-Green</div> <div>● B-Blue</div>	
	DC24V	1.3A	· WP-5 Special warning sounds: Max.113dB				
	AC110V	330mA	· WM-5 Melodies: Max.113dB		3.50kg		
	AC220V	180mA	· WA-5 Alarms: Max.113dB · WV-5 Customizable voices: 108-113dB				


- Excellent omni-directional visibility with LED light collecting system and special multifaceted reflector
- Revolving speed: 120-140RPM
- Ambient operating temperature: -20°C to +50°C

SCDFL / SCDWL LED Steady/Flashing Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color	
SCDFL SCDWL	DC12V	2A	· WS-5 Warning sounds: Max.113dB		2.52kg	<div><div>● R-Red</div><div>● A-Amber</div><div>● G-Green</div><div>● B-Blue</div></div>	
	DC24V	1.5A	· WP-5 Special warning sounds: Max.113dB				
	AC110V	370mA	· WM-5 Melodies: Max.113dB		3.46kg		
	AC220V	200mA	· WA-5 Alarms: Max.113dB · WV-5 Customizable voices: 108-113dB				


- Multi layer LED reflect system emits clear and uniform level of signal lights throughout the lens
- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch)
- Ambient operating temperature: -30°C to +50°C

SCDFS / SCDWS Xenon Strobe Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Xenon lamp			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SCDFS SCDWS	DC12V	2.5A	200V -550V	EUB0641	48	· WS-5 Warning sounds: Max.113dB		2.46kg	● R-Red
	DC24V	1.4A		-1A(G)		· WP-5 Special warning sounds: Max.113dB			● A-Amber
	AC110V	360mA		U type		· WM-5 Melodies: Max.113dB		3.85kg	● G-Green
	AC220V	220mA				· WA-5 Alarms: Max.113dB · WV-5 Customizable voices: 108-113dB			● B-Blue

- Convenient lamp exchange by adopting connector type lamp installation
- Flashing rate : 60-80 flashes/min
- Ambient operating temperature : -30°C to +50°C

SCDF / SCDW Bulb Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Bulb			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SCDF SCDW	DC12V	3A	12V15W	G23 15S	17	· WS-5 Warning sounds: Max.113dB		2.68kg	● R-Red
	DC24V	2A	24V15W	G23 15S	18	· WP-5 Special warning sounds: Max.113dB			● A-Amber
	AC110V	450mA	12V15W	G23 15S	17	· WM-5 Melodies: Max.113dB		3.60kg	● G-Green
	AC220V	230mA	12V15W	G23 15S	17	· WA-5 Alarms: Max.113dB · WV-5 Customizable voices: 108-113dB			● B-Blue

- Multi layer reflector system provides excellent signal light diffusing effect
- Revolving speed : 120-140RPM
- Ambient operating temperature : -20°C to +50°C

※ CE compliant : DC24V

※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch4.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

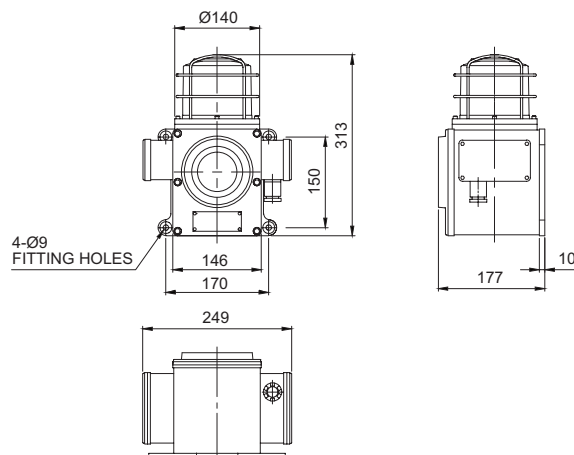
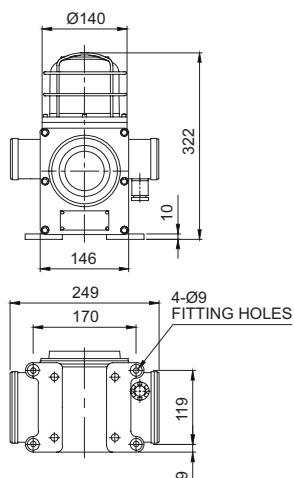
SCD Series

Technical Diagram

·SCDFLR / SCDFL / SCDFS / SCDF

·SCDWLR / SCDWL / SCDWS / SCDW

Units: mm



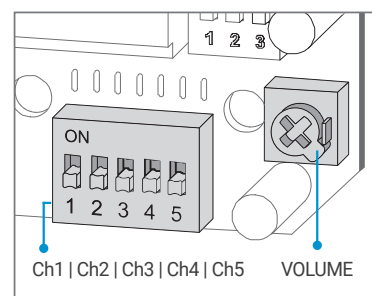
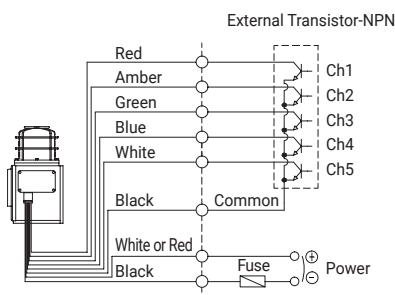
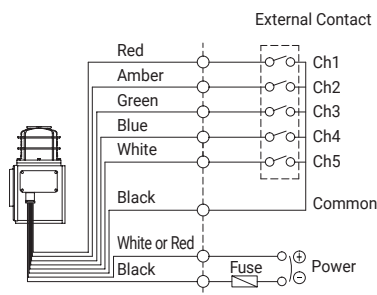
Sound Selection Instructions and Wiring

·SCDW Series-DC/AC

·SCDF Series-DC/AC

· Customization: External contact(LC)

· Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Wiring Instructions

· SCDF, SCDFLR, SCDW, SCDWLR - Black output line is negative(-).

Customization

- Customized cable entry(3/4"PF) available(Standard : 1/2"PF)
- Customized external sound line type available : SCD Series has built-in switch for sound tone selection
- Customized wiring available to select the sound tone via external contact or transistor wiring type(Model number : -LC)
- Cable gland type

Ordering Specification

SCDW	-	WA	-	24	-	R	-	LC
[Model number]		[Sound]		[Voltage]		[Color]		[Sound selection]
SCDFLR		WS-Warning sounds		12-DC12V		● R-Red		None-Built-in switch
SCDFL		WP-Special warning sounds		24-DC24V		● A-Amber		LC-External contact
SCDFS		WM-Melodies		110-AC110V		● G-Green		
SCDF		WA-Alarms		220-AC220V		● B-Blue		
SCDWLR		WV-Customizable voices						
SCDWL								
SCDWS								
SCDW								

SED / SD / SMD Series

Wall mount Signal Beacon and Electronic Sounder combinations featuring superior durability, tight seal, and corrosion resistance, designed for vessels and heavy industrial applications



PRODUCT SPECIFICATION

SED | SD | SMD

Materials Lens-PC, Housing-Al, Protection cage-STS316L, Reflector-PC, Reflector-Heat resistant ABS

Cable entry 1/2" PF

Protection rating IP66

Housing standard color MUNSELL No. 7.5BG 7/2

- Wall mount Signal Beacon and Electronic Sounder combinations for vessels and heavy industrial applications
- Aluminum housing and polycarbonate lens material provides excellent impact and shock resistance
- Excellent hermetic structure that block water and dust
- Can select a variety of light source(bulb, LED, xenon lamp) and sound pattern combination
- Attached terminal box enables easy wiring
- Can adjust sound volume and select sound pattern with the switches built inside the products

- **SED Series** Ø125mm signal beacon & electronic sounder with Max.114dB sound output
- **SD Series** Ø150mm signal beacon & electronic sounder with Max.114dB sound output
- **SMD Series** Ø150mm signal beacon & electronic sounder with Max.120dB sound output

1 Lens

- Utilizes a strong and durable polycarbonate material with excellent shock and vibration resistance.



Light transmission type

LED revolving type(SEDLR)
LED revolving type(SED)



Light diffusion type

LED steady/flashing type(SEDL)
Xenon lamp strobe type(SEDs)

2 Protection cage

- The durable protection cage is made of corrosion resistant stainless steel that prevents damage to the lens from external contact
- Materials: STS316L

3 A variety of selectable warning sounds and sound messages

You can convey specific information with a variety of 20 warning sounds and voice messages.

Sound	Built-in sound	Ch	Sound tone
WS	5 Warning sounds	Ch1	Fire.A-ANG
		Ch2	Emergency WA-U(Yelp)
		Ch3	Ambulance PI-PO(Hi-low)
		Ch4	Machinery Fault
		Ch5	High Expansion
WP	5 Special warning sounds	Ch1	Fire.A-ANG
		Ch2	Abandon Alarm
		Ch3	Machinery Fault
		Ch4	High Expansion
		Ch5	7 Short Pl. / 1 Long
WM	5 Melodies	Ch1	Sweet Home
		Ch2	For Elise
		Ch3	Cuckoo's Waltz
		Ch4	Piano Sonata
		Ch5	Turkish March
WA	5 Alarms	Ch1	Beep Intermittent
		Ch2	Door Chime
		Ch3	Phone Ring
		Ch4	Pl.PI.PI Short
		Ch5	Tripping Beat
WV	5 Customizable voices	Ch1- Ch5	Customized sound tones

4 Housing

- The special aluminum housing features superior durability
- The housing is corrosion resistant from a special anodized surface treatment process
- Materials: Al

5 Terminal Box

- Terminal box is located at the bottom of the product for easy wiring
- Materials: Al

A Variety of Selectable Light Source and Function Combinations

You can select from a variety of light sources for your work environment, condition, and purpose. Basic specifications are as follows.

- LED revolving type
- LED steady/flashing type
- Xenon lamp strobe type
- Bulb revolving type

Customization

- LED Strobe type
- LED revolving type

SED / SD / SMD Series

SED / SD / SMD Series Product Categories



Standard type

- No protection cage is provided
- Recommended for the places where the lens is not damaged by external contact
- SED / SD / SMD Series



Protection cage type

- Provided with protection cage
- Lens can be protected from the damage by external contact
- SEDP / SDP / SMDP Series

SED / SD / SMD Series References

SED Series		SD Series		SMD Series	
Diameter/dB	Ø125mm, Max.114dB at 1m		Ø150mm, Max.114dB at 1m		Ø150mm, Max.120dB at 1m
Materials	Lens-PC, Housing-AL, Protection cage-ST316L, Reflector-PC, Reflector-Heat resistant ABS				
Protection rating	IP66				
Certificates	CCS, CE		CE		-
Cable entry	Standard : 1/2"PF (Customized cable entry available : 3/4"PF)				
Mounting	Wall mount				
Standard type		Built-in protection cage	Standard type		Built-in protection cage

LED revolving

Bulb revolving

SEDLR
SEDSEDLRP
SEDPSDLR
SDSDLRP
SDPSMDLR
SMDSMDLRP
SMDPLED
steady/flashingXenon lamp
strobeSEDL
SEDSSEDLP
SEDSPSDL
SDSSDLP
SDSPSMDL
SMDSSMDLP
SMDSP

Signal Beacon and Electronic Sounders for Vessels and Heavy Industry Applications

SED Series



Ø125mm signal beacon and Max.114dB electronic sounder combination



SEDLR / SEDLRP LED Revolving Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SEDLR SEDLRP	DC12V	1.7A	·WS-5 Warning sounds: Max.114dB		·SEDLR	
	DC24V	1.3A	·WP-5 Special warning sounds : Max.114dB		DC-3.09kg	● R-Red
	AC110V	330mA	·WM-5 Melodies: Max.110dB		AC-3.86kg	● A-Amber
	AC220V	180mA	·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SEDLRP	● G-Green ● B-Blue

- Revolving speed: 120-140RPM, Ø125mm
- Ambient operating temperature: -20°C to +50°C



SEDL / SEDLP LED Steady/Flashing Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SEDL SEDLP	DC12V	2A	·WS-5 Warning sounds: Max.114dB		·SEDL	
	DC24V	1.5A	·WP-5 Special warning sounds : Max.114dB		DC-2.96kg	● R-Red
	AC110V	370mA	·WM-5 Melodies: Max.110dB		AC-3.38kg	● A-Amber
	AC220V	200mA	·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SEDLP	● G-Green ● B-Blue

- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch), Ø125mm
- Ambient operating temperature: -30°C to +50°C



SEDS / SEDSP Xenon Strobe Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Xenon lamp			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SEDS SEDSP	DC12V	2.5A				·WS-5 Warning sounds : Max.114dB			
	DC24V	1.4A	200V	EUB0641	48	·WP-5 Special warning sounds: Max.114dB			
	AC110V	360mA	-550V	-1A(G)		·WM-5 Melodies : Max.110dB			
	AC220V	220mA		U type		·WA-5 Alarms : Max.114dB ·WV-5 Customizable voices: 108-113dB			

- Convenient lamp exchange by adopting a connector type lamp installation
- Flashing rate: 60-80 flashes/min, Ø125mm
- Ambient operating temperature: -30°C to +50°C



SED / SEDP Bulb Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Bulb			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SED SEDP	DC12V	3A	12V15W	G23 15S	17	·WS-5 Warning sounds : Max.114dB	 CE		
	DC24V	2A	24V15W	G23 15S	18	·WP-5 Special warning sounds: Max.114dB			
	AC110V	450mA	12V15W	G23 15S	17	·WM-5 Melodies : Max.110dB			
	AC220V	230mA	12V15W	G23 15S	17	·WA-5 Alarms : Max.114dB ·WV-5 Customizable voices: 108-113dB			

- Revolving speed: 120-140RPM, Ø125mm
- Ambient operating temperature: -20°C to +50°C

※ CE compliant : DC24V

※ Max.built-in volume feature is based on WS, WP-Ch23 / WM-Ch5 / WA-Ch5

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.



SEDLR



SEDLP / SEDSP



SED

Signal Beacon and Electronic Sounder for Vessels and Heavy Industry Applications

SD Series



Ø150mm signal beacon and Max.114dB electronic sounder combination



SDLR



SDL / SDS



SD

SDLR / SDLRP LED Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SDLR SDLRP	DC12V	1.7A	·WS-5 Warning sounds: Max.114dB	-	·SDLR	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.3A	·WP-5 Special warning sounds : Max.114dB		DC-3.36kg	
	AC110V	330mA	·WM-5 Melodies: Max.110dB		AC-4.13kg	
	AC220V	180mA	·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SDLRP DC-3.65kg AC-4.42kg	

- Revolving speed: 120-140RPM, Ø150mm
- Ambient operating temperature: -20°C to +50°C

SDL / SDLP LED Steady/Flashing Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SDL SDLP	DC12V	2A	·WS-5 Warning sounds: Max.114dB	-	·SDL	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.5A	·WP-5 Special warning sounds : Max.114dB		DC-3.22kg	
	AC110V	370mA	·WM-5 Melodies: Max.110dB		AC-3.64kg	
	AC220V	200mA	·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SDLP DC-3.51kg AC-3.93kg	

- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch), Ø150mm
- Ambient operating temperature: -30°C to +50°C

SDS / SDSP Xenon Lamp Strobe Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Xenon lamp			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SDS SDSP	DC12V	2.5A	200V -550V	EUB0641 -1A(G) U type	48	·WS-5 Warning sounds : Max.114dB	-	·SDS DC-3.28kg AC-3.66kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.4A				·WP-5 Special warning sounds: Max.114dB			
	AC110V	360mA				·WM-5 Melodies : Max.110dB			
	AC220V	220mA				·WA-5 Alarms : Max.114dB ·WV-5 Customizable voices: 108-113dB		·SDSP DC-3.57kg AC-3.95kg	

- Convenient lamp exchange by adopting a connector type lamp installation
- Flashing rate: 60-80 flashes/min, Ø150mm
- Ambient operating temperature: -30°C to +50°C

SD / SDP Bulb Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Bulb			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SD SDP	DC12V	3A	12V15W	G23 15S	17	·WS-5 Warning sounds : Max.114dB	CE	·SD DC-3.43kg AC-4.21kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	2A	24V15W	G23 15S	18	·WP-5 Special warning sounds: Max.114dB			
	AC110V	450mA	12V15W	G23 15S	17	·WM-5 Melodies : Max.110dB			
	AC220V	230mA	12V15W	G23 15S	17	·WA-5 Alarms : Max.114dB ·WV-5 Customizable voices: 108-113dB		·SDP DC-3.72kg AC-4.50kg	

- Revolving speed: 120-140RPM, Ø150mm
- Ambient operating temperature: -20°C to +50°C
- ※ CE compliant : DC24V
- ※ Max.built-in volume feature is based on WS, WP-Ch23 / WM-Ch5 / WA-Ch5
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Signal Beacon and Electronic Sounder for Vessels and Heavy Industry Applications

SMD Series



Ø150mm signal beacon and Max.120dB electronic sounder combination

SMDLR / SMDLRP LED Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SMDLR SMDLRP	DC12V	2A	·WS-5 Warning sounds: Max.120dB	-	·SMDLR DC-5.91kg	● R-Red
	DC24V	1.32A	·WP-5 Special warning sounds : Max.120dB		AC-6.68kg	● A-Amber
	AC110V	380mA	·WM-5 Melodies: Max.115dB		·SMDLRP DC-6.20kg	● G-Green
	AC220V	200mA	·WA-5 Alarms: Max.118dB ·WV-5 Customizable voices: 109-117dB		AC-6.97kg	● B-Blue

- Revolving speed: 120-140RPM, Ø150mm
- Ambient operating temperature: -20°C to +50°C

SMDL / SMDLP LED Steady/Flashing Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SMDL SMDLP	DC12V	2.4A	·WS-5 Warning sounds: Max.120dB	-	·SMDL DC-5.77kg	● R-Red
	DC24V	1.26A	·WP-5 Special warning sounds : Max.120dB		AC-6.19kg	● A-Amber
	AC110V	390mA	·WM-5 Melodies: Max.115dB		·SMDLP DC-6.06kg	● G-Green
	AC220V	200mA	·WA-5 Alarms: Max.118dB ·WV-5 Customizable voices: 109-117dB		AC-6.48kg	● B-Blue

- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch), Ø150mm
- Ambient operating temperature: -30°C to +50°C

SMDS / SMDSP Xenon Strobe Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Xenon lamp			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SMDS SMDSP	DC12V	2.82A	200V -550V	EUB0641 -1A(G) 48 U type	48	·WS-5 Warning sounds : Max.120dB	-	·SMDS DC-5.83kg	● R-Red
	DC24V	1.4A				·WP-5 Special warning sounds: Max.120dB		AC-6.21kg	● A-Amber
	AC110V	300mA				·WM-5 Melodies : Max.115dB		·SMDSP DC-6.12kg	● G-Green
	AC220V	200mA				·WA-5 Alarms : Max.118dB ·WV-5 Customizable voices: 109-117dB		AC-6.50kg	● B-Blue

- Convenient lamp exchange by adopting connector type lamp installation
- Flashing rate: 60-80 flashes/min, Ø150mm
- Ambient operating temperature: -30°C to +50°C

SMD / SMDP Bulb Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Bulb			Sound pattern and volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SMD SMDP	DC12V	3.6A	12V15W	G23	15S	17	·WS-5 Warning sounds : Max.120dB	·SMD DC-5.98kg AC-6.76kg	● R-Red
	DC24V	1.8A	24V15W	G23	15S	18	·WP-5 Special warning sounds: Max.120dB		● A-Amber
	AC110V	470mA	12V15W	G23	15S	17	·WM-5 Melodies : Max.115dB		·SMDP DC-6.27kg AC-7.05kg
	AC220V	280mA	12V15W	G23	15S	17	·WA-5 Alarms : Max.118dB ·WV-5 Customizable voices: 109-117dB		● B-Blue

- Revolving speed: 120-140RPM, Ø150mm
- Ambient operating temperature: -20°C to +50°C

※ Max.built-in volume feature is based on WS, WP-Ch23 / WM-Ch5 / WA-Ch5

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.



SMDLR



SMDLP / SMDSP



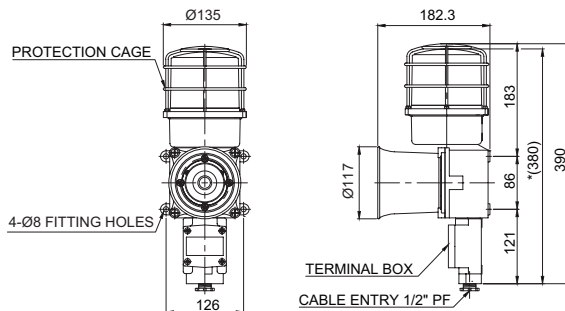
SMDP

SED / SD / SMD Series

Technical Diagram

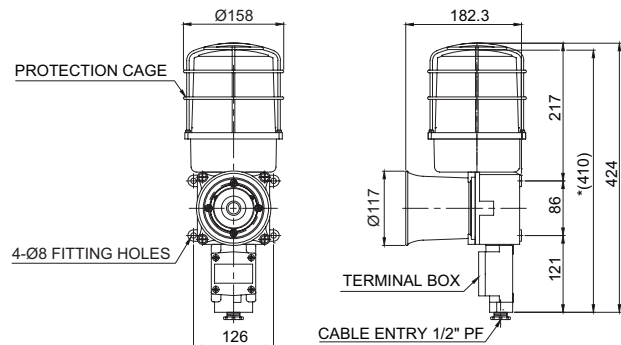
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·SEDLRP / SEDLP / SEDSP / SEDP



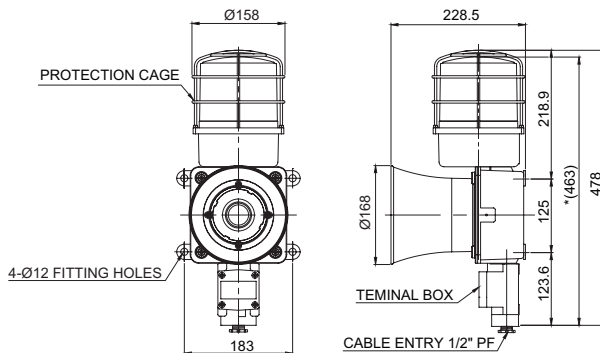
※ *(380) represents SED Series size without protection cage.

·SDLRP / SDLP / SDSP / SDP



※ *(410) represents SD Series size without protection cage.

·SMDLRP / SMDLP / SMDSP / SMDP



※ *(463) represents SMD Series size without protection cage.

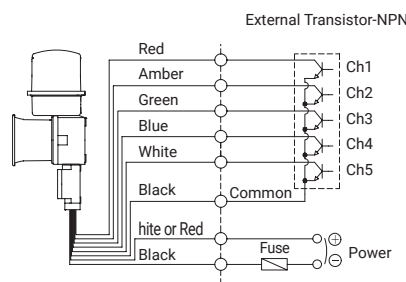
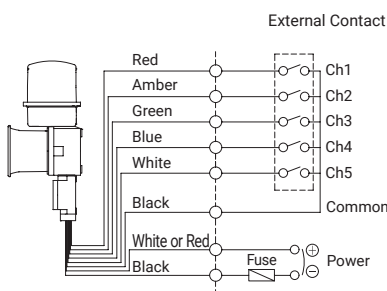
Customization

- Cable gland type
- Customized cable entry(3/4"PF) available(Standard : 1/2"PF)
- Customized external sound line type available : SED/SD/SMD Series have built-in switch for sound tone selection
- Customized wiring in case of external contact or transistor wiring type as sound tone selector (Model number : -LC)
- Brass housing : Brass housing for SD/ SMD Series are optionally provided which has excellent anti-corrosive properties
- ※ Color will be MUNSELL No. 7.5BG 7/2 when released.

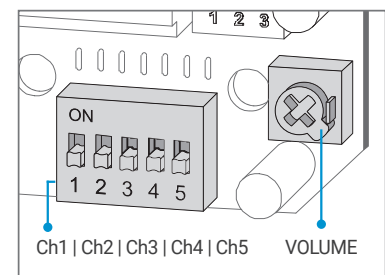
Sound Selection Instructions and Wiring

·SED / SD / SMD Series-DC/AC

- Customization: External contact(LC)



- Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Wiring Instructions

- SED, SEDLR, SD, SDLR, SMD, SMDLR - Black output line is negative(-).

Ordering Specification

SEDLR	WA	24	R
[Model number]	[Sound]	[Voltage]	[Color]
SEDLR / SEDLRP / SEDL / SEDLP SEDS / SEDSP / SED / SEDP SDLR / SDLRP / SDL / SDLP SDS / SDSP / SD / SDP SMDLR / SMDLRP / SMDL / SMDLP SMDS / SMDSP / SMD / SMDP	WS-ningds Wpeci war	12-DC12V 24-DC24V 110-AC110V 220-AC220V	● R-Red ● A-Amber ● G-Green ● B-Blue

Signal Beacon & Electronic Sounder Combinations

SC Series



SC Series can combine all of our Signal Beacon and Electronic Sounder products into a single combination model depending on your specific needs

PRODUCT SPECIFICATION

SC1

Ambient operating temperature -20°C to +50°C
Sound volume 15 signal sounds : Max.108dB at 1m
 Voice signal : 95-102dB at 1m
Protection rating IP44

- Standard combination includes S100R products combination with SRN (same as pictured to the Right)
- ※ Volume and protection level may change depending on the combination.



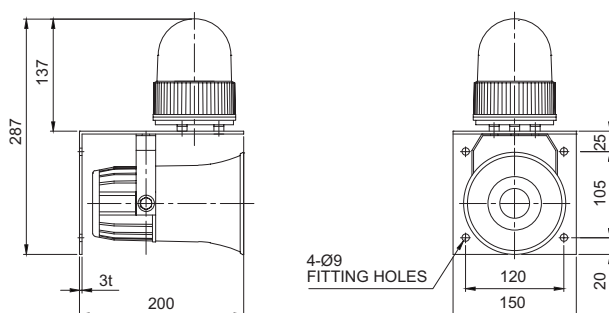
SC1

SC1 The budget model of small-sized Signal Beacon and Electronic Sounder combinations

Technical Diagram

Units: mm

·SC1



Customization

Signal beacon : Select one from S100 Series for the combination
 Electronic sounder : Select one from SN, SRN, SEN15/ 25 for the combination

PRODUCT SPECIFICATION

SC2

Ambient operating temperature -20°C to +50°C
Sound volume 15 signal sounds : Max.105dB at 1m
 Voice signal : 94-101dB at 1m
Protection rating IP44

- Standard combination includes S125U products combined with the SEN15 (same as pictured to the right)
- ※ Volume and protection level may change depending on the combination.



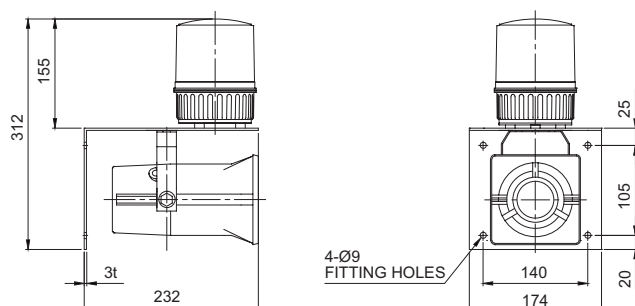
SC2

SC2 Most commonly used standard-sized Signal Beacon and Electronic Sounder combinations

Technical Diagram

Units: mm

·SC2



Customization

- Signal beacon : Select one from S125 Series for the combination
- Electronic sounder : Select one from SN, SRN, SEN15/ 25 for the combination



PRODUCT SPECIFICATION

SC3

Ambient operating temperature -20°C to +50°C

Sound volume 15 signal sounds : Max.114dB at 1m

Voice signal : 108-113dB at 1m

Protection rating IP56

- Combination of SH1-2T and signal horn SEWN30L(Same as pictured to the left)

※ Volume and protection level may change depending on the combination.



SC3

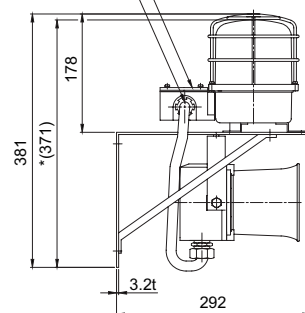
SC3 Waterproof, dustproof type Signal Beacon and Electronic Sounder combinations

Technical Diagram

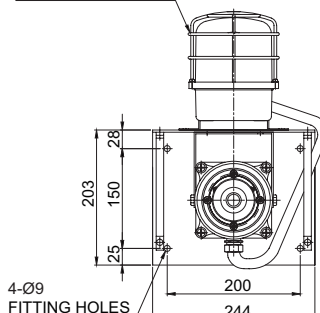
Units: mm

SC3

TERMINAL BOX
CABLE ENTRY
PF 1/2"



PROTECTION CAGE



※ * (371) represents without protection cage.

Customization

- Signal beacon : Select between models SH1P-2T and SH2P-2T Series
- Electronic sounder : Choose one model among SEWN30L/50L, SEWN50L, SEHN25, and SEHN50

Standard Model Number

SC1	-	220	-	R
[Model number]		[Voltage]		[Color]
SC1(S100R+SRN)		12-DC12V		● R-Red
SC2(S125U+SEN15)		24-DC24V		● A-Amber
SC3(SH1P-2T+SEWN30L)		110-AC110V		● G-Green
		220-AC220V		● B-Blue

Ordering Specification

SC3	- (SH1P-2T	-	R	-	SEWN30L	-	WS)	-	220
[Model number]		[Light type]		[Color]		[Horn type]		[Sound]			[Voltage]
SC1		Select 1 model among S100 Series		<div><div></div> R-Red</div> <div><div></div> A-Amber</div> <div><div></div> G-Green</div> <div><div></div> B-Blue</div>		Select 1 model among SN, SRN and SEN15/25		WS-Warning sounds WP-Special warning sounds WM-Melodies WA-Alarms WV- Customizable voices		12-DC12V 24-DC24V 110-AC110V 220-AC220V	
SC2		Select 1 model among S125 Series				Select 1 model among SN, SRN and SEN15/25					
SC3		Select 1 model among SH1P-2T and SH2P-2T Series				Select 1 model among SEWN30L/ 50L and SEHN25/50					

※ Light sources can be selected among LED revolving, LED steady/flashing, xenon strobe and bulb revolving type.

Provides excellent durability to extreme vibration and shock

PRODUCT SPECIFICATION

SSL

Materials Housing-Al, Lens-PC
Ambient operating temperature -30°C to +60°C
Protection rating IP68(IEC60529)

- Special anti-reflective lens applied to avoid mistaking the reflected sun light as a signal light (W type)
- M type has excellent visibility from a distance with clear and distinctive layer colors
- Superior durability in extreme vibration and shock thanks to molding assembly between aluminum housing and lens
- Customized color arrangement available(Lens color configuration is initiated from the side of cable entry)



SSL100W / SSL200W
SSL300W / SSL400W

SSL LED Steady Signal Lights for Container Spreaders

Model number	Voltage	Certificates	Weight	Cable Entry	Color
SSL100	DC24V	CE	1.80kg	M12-5PIN(male) C10-Cable	● R-Red ● A-Amber ● G-Green ● B-Blue ○ W-White
	AC110V		1.85kg		
	AC220V		1.85kg		
SSL200	DC24V		2.15kg		
	AC110V		2.20kg		
	AC220V		2.20kg		
SSL300	DC24V		2.50kg		
	AC110V		2.55kg		
	AC220V		2.55kg		
SSL400	DC24V		2.95kg		
	AC110V		3.00kg		
	AC220V		3.00kg		

※ CE compliant: DC24V

※ M12-5PIN connector: Female M12 connector is not provided.



SSL100M / SSL200M
SSL300M / SSL400M

Light source current(based on 1 layer)

Voltage	DC24V	AC110V	AC220V
Light source current(1 layer)	150mA	45mA	45mA

SSL Series Vibration and Shock Test Conditions

Axial direction	Direction X	Direction Y	Direction Z
Vibration test conditions	10-38 Hz, 3.5mm 38-500 Hz, 20g 1 oct/min, 2 hours	10-38 Hz, 3.5mm 38-500 Hz, 20g 1 oct/min, 2 hours	10-38 Hz, 3.5mm 38-500 Hz, 20g 1 oct/min, 2 hours
Shock test conditions	50g 6 ms ±1000 shocks	50g 6 ms ±1000 shocks	50g 6 ms ±1000 shocks

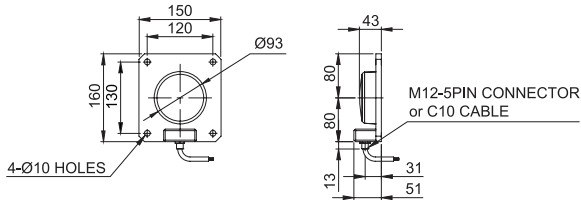
Ordering Specification

SSL100W	-	24	-	R
[Model number]		[Voltage]		[Color]
SSL100W / SSL100M		24-DC24V		● R-Red
SSL200W / SSL200M		110-AC110V		● A-Amber
SSL300W / SSL300M		220-AC220V		● G-Green
SSL400W / SSL400M				● B-Blue
				○ W-White

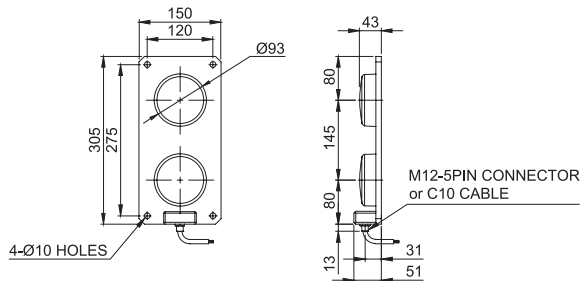
Technical Diagram

Units: mm

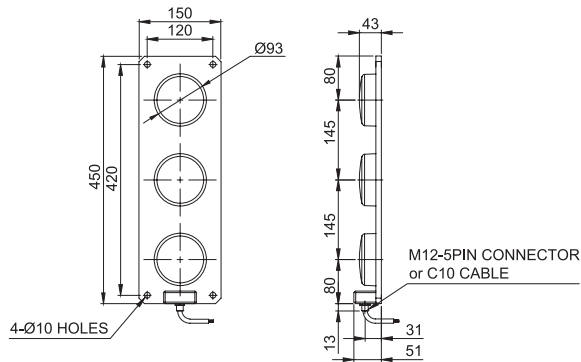
·SSL100W / SSL100M



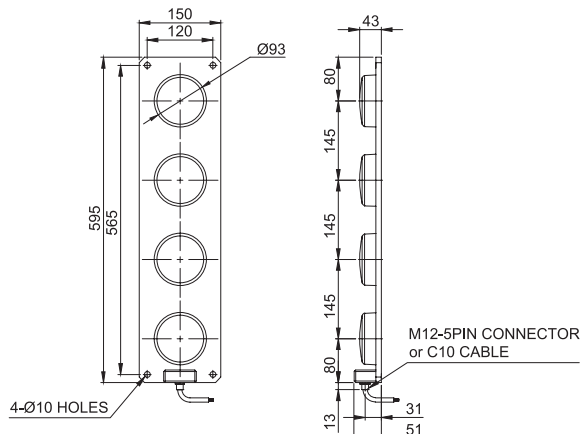
·SSL200W / SSL200M



·SSL300W / SSL300M

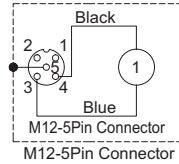


·SSL400W / SSL400M

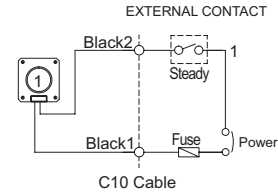


Wiring Instructions

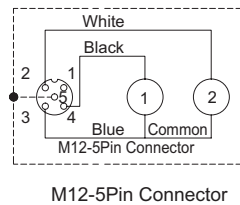
·SSL100W / SSL100M



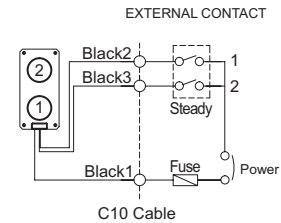
- M12-5PIN connector type
Pin no. 3 is common, however equipped built-in Bridge circuit, power line can be wired to Pin no.3 or 4 regardless of polarity
- C10 CABLE TREADING TYPE
Treading power line, signal line standard : 7G×0.5mm² 600V/80°C I WIRE 1,000mm treading



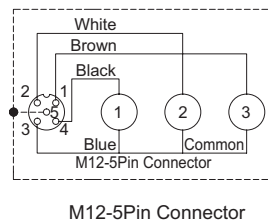
·SSL200W / SSL200M



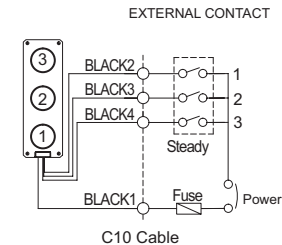
- M12-5PIN connector type
Pin no. 3 is common, however equipped built-in Bridge circuit, power line can be wired to Pin no.3 or 2, 4 regardless of polarity
- C10 CABLE TREADING TYPE
Treading power line, signal line standard : 7G×0.5mm² 600V/80°C I WIRE 1,000mm treading



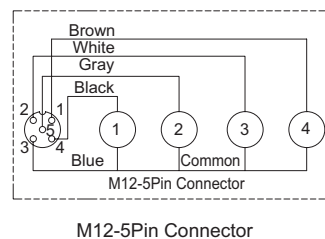
·SSL300W / SSL300M



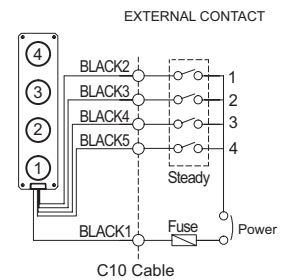
- M12-5PIN connector type
Pin no. 3 is common, however equipped built-in Bridge circuit, power line can be wired to Pin no.3 or 1, 2, 4 regardless of polarity
- C10 CABLE TREADING TYPE
Treading power line, signal line standard : 7G×0.5mm² 600V/80°C I WIRE 1,000mm treading



·SSL400W / SSL400M



- M12-5PIN connector type
Pin no. 3 is common, however equipped built-in Bridge circuit, power line can be wired to Pin no. 3 and pin no. 1, 2, 4, 5 regardless of polarity
- C10 CABLE TREADING TYPE
Treading power line, signal line standard : 7G×0.5mm² 600V/80°C I WIRE 1,000mm treading



QWCD Series

A new concept of using the horn cover as a light globe



PRODUCT SPECIFICATION

QWCD35(SD) | QWCD50(SD)
QWCD35T(SD) | QWCD50T(SD)
QWCD35B | QWCD35BT

Materials Horn-PC, Housing-PC+ABS

Ambient operating temperature

-30°C to +50°C(Standard type/buzzer type)

-50°C to +50°C(Low temperature type only DC)

-20°C to +50°C(SD Card type)

Protection rating IP66

Flashing rate 60-80 flashes/min

Compliant with RoHS directive

- Combination of built-in 31 sounds and MP3(SD Card)
- High-volume buzzer sound (buzzer type)

- Easy device customization with built in sound selection function, volume adjustment function and an SD Card slot for user inputted tones
- 31 pre-recorded tones available via binary input.
- The user can select their own tones by inputting the MP3 file directly into the SD Card
- Suitable for use in environments that require a tight seal and superior dust protection rated IP66.
- Terminal box is attached separately for convenient wiring(QWCD35T, QWCD35TSD, QWCD50T, QWCD50TSD, QWCD35BT)
- High-volume buzzer output(QWCD35B,QWCD35BT)
- Support for CAN communication type products (Customization : QWCD35, QWCD35T)

Qlight's exclusive innovative design the horn cover emits light!

- By using the horn cover as a light globe, the size of the product has been reduced significantly
- The color of light can be selected from red, yellow, green, or blue
- Product has two models: the basic model with 31 built-in sounds, and an external sound (MP3) type model
- Includes seven different playback functions; one function is the continuous playback function which provides constant message notification
- Can play special alarm sounds depending on environment, and supports binary input method
- Can play up to 31 sounds by saving MP3 files on SDcard
- By making the horn cover with polycarbonate (PC) material, The product has excellent durability and weather resistance
- Can be used for heavy-duty, ship, or outdoor use which requires waterproof, dustproof structure(IP66).

QWCD Series is an integrated horn and light globe.

QWCD Series	
QWCD35(T)	Built-in standard sound
QWCD35(T)SD	MP3(SD Card)
QWCD50(T)	Built-in standard sound, large output sound
QWCD50(T)SD	MP3(SD Card), large output sound
QWCD35B(T)	Built-in high volume buzzer

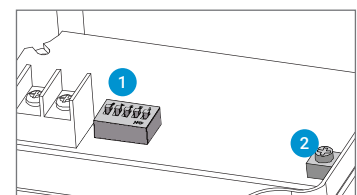
The input method of built-in sound type

	1	2	3	4	5
ON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No.	1	2	3	4	5
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	1	0
:	:	:	:	:	:
31	1	1	1	1	1

Built-in sound type model supports Binary input mode which provides a selection of 31 different input combinations for five kinds of sounds.

You can only select 2 numbers with 1 switch; "0", "1". With 5 switches you can have 31 combinations. Selecting one sound from 5 switches is the binary input method.

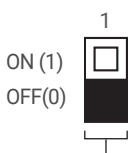
Built-in sound type



- 1 Sound selection switch
- 2 Volume

The sound selection method of SD Card type

- Can easily select built-in sound or external sound(MP3) by using the sound selection switch.



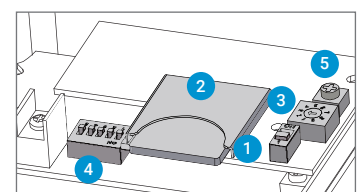
The sound selection

0: Select built-in sound

1: Select SD Card

- 31 built-in alarm sounds and special sound
- Supports SD Cards for external sound (MP3)
- Binary Input: 31Ch
- Bit Input: 5Ch(SD Card only)
- Please refer to [Sound pattern and combination for special alarm product] on this catalogue for detailed settings.

SD Card(MP3) type



- 1 Sound setting switch
- 2 MP3 playable SD Card slot
- 3 Play mode setting switch
- 4 Sound selection switch
- 5 Volume

QWCD Series



QWCD35 Series



QWCD50 Series

QWCD35 LED Strobe Signal Beacon & Electronic Sounder Combinations

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD35 Built-in standard sound	DC12V-24V	Max.1.35A	·Bit Input: 5Ch(SD Card) ·Binary Input: 31Ch ·Warning Sounds : Max.115dB (Based on Ch31)	CE CCS UL	1.10kg	● R-Red ● A-Amber ● G-Green ● B-Blue
QWCD35SD MP3	DC12V-24V	Max.1.35A	·MP3: Max.112dB		1.15kg	
	AC110V-220V	Max.350mA				

※ UL Listed: DC12V-24V

QWCD50 LED Strobe Signal Beacon & Electronic Sounder Combinations

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD50 Built-in standard sound	DC12V-24V	Max.4.65A	·Bit Input: 5Ch(SD Card) ·Binary Input: 31Ch ·Warning Sounds : Max.123dB (Based on Ch16)	CE UL	2.70kg	● R-Red ● A-Amber ● G-Green ● B-Blue
QWCD50SD MP3	DC12V-24V	Max.4.65A	·MP3: Max.115dB		3.00kg	
	AC110V-220V	Max.900mA				

※ DC type model has a free-voltage range of 10V-30V.

※ AC type model has a free-voltage range of 100V-240V.

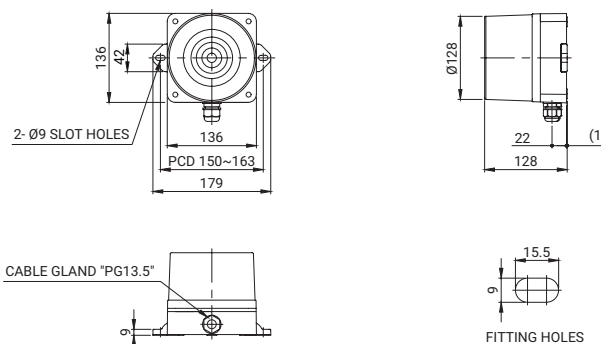
※ UL Listed: DC12V-24V

※ When playing MP3 files, there may be difference of volume depending on user's audio file type.

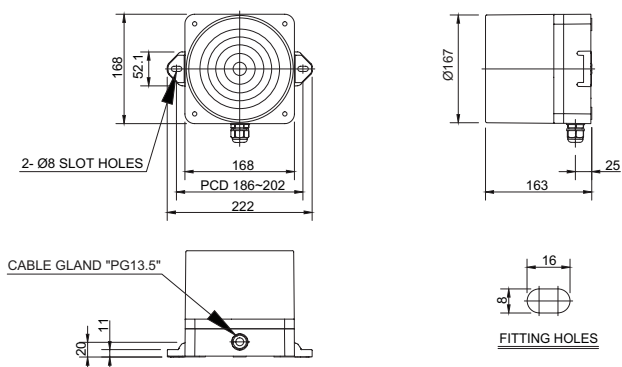
Technical Diagram

Units: mm

·QWCD35 / QWCD35SD



·QWCD50 / QWCD50SD



Customization

- External threading of signal line for sound selection(Model number: -LC)
- Support for CAN communication type products(QWCD35 DC only)
- Cold-resistance type(DC type only)

Ordering Specification

QWCD50	-	110/220	-	R	-	LC	-	INS
[Model number]		[Voltage]		[Color]		[sound selection]		[Including SD card]
QWCD35		12/24		● R-Red		None-Standard type		None-Without SD card
QWCD35SD		-DC12V-24V		● A-Amber		LC Type-Uses external		INS-Including SD card
QWCD50		110/220		● G-Green		contact		
QWCD50SD		-AC110V-220V		● B-Blue				



QWCD35T LED Strobe Signal Beacon & Electronic Sounder Combinations

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD35T Terminal box equipped type	DC12V-24V	Max. 1.35A	·Bit Input: 5Ch(SD Card)	CE UL	1.30kg	● R-Red ● A-Amber ● G-Green ● B-Blue
Built-in sound type	AC110V-220V	Max. 350mA	·Binary Input: 31Ch ·Warning Sounds : Max.115dB			
QWCD35TSD Terminal box equipped type	DC12V-24V	Max. 1.35A	·(Based on Ch31)	CE UL	1.35kg	● R-Red ● A-Amber ● G-Green ● B-Blue
MP3	AC110V-220V	Max. 350mA	·MP3: Max.112dB			

※ UL Listed: DC12V-24V

QWCD50T LED Strobe Signal Beacon & Electronic Sounder Combinations

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD50T Terminal box equipped type	DC12V-24V	Max. 4.65A	·Bit Input: 5Ch(SD Card)	CE UL	3.10kg	● R-Red ● A-Amber ● G-Green ● B-Blue
Built-in sound type	AC110V-220V	Max. 900mA	·Binary Input: 31Ch ·Warning Sounds : Max.123dB			
QWCD50TSD Terminal box equipped type	DC12V-24V	Max. 4.65A	·(Based on Ch16)	CE UL	3.40kg	● R-Red ● A-Amber ● G-Green ● B-Blue
MP3	AC110V-220V	Max. 900mA	·MP3: Max.115dB			

※ DC type model has a free-voltage range of 10V-30V.

※ AC type model has a free-voltage range of 100V-240V.

※ UL Listed: DC12V-24V

※ When playing MP3 files, there may be difference of volume depending on user's audio file type.

Allows for easy wiring with terminal box and 2 cable gland equipped



QWCD35T Series

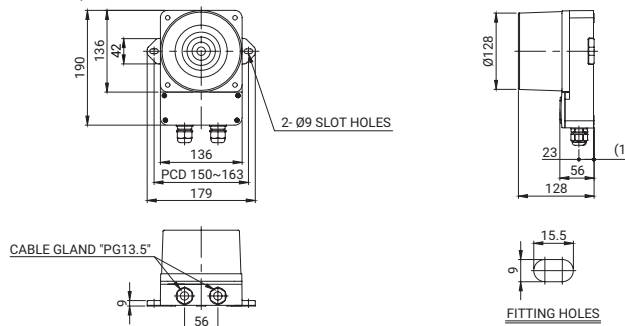


QWCD50T Series

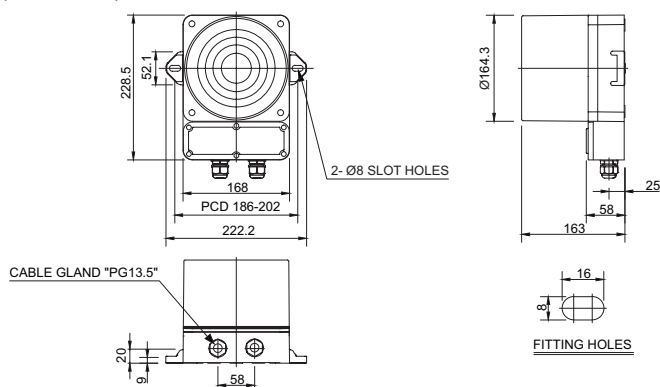
Technical Diagram

Units: mm

QWCD35T / QWCD35TSD



QWCD50T / QWCD50TSD



Ordering Specification

QWCD35T	-	110/220	-	R	-	LC	-	INSD
[Model number]		[Voltage]		[Color]		[sound selection]		[Including SD card]
QWCD35T		12/24-DC12V-24V		● R-Red		None-Standard type		None-Without SD card
QWCD35TSD		110/220-AC110V-220V		● A-Amber		LC Type-Uses external contact		INSD-Including SD card
QWCD50T				● G-Green				
QWCD50TSD				● B-Blue				

Customization

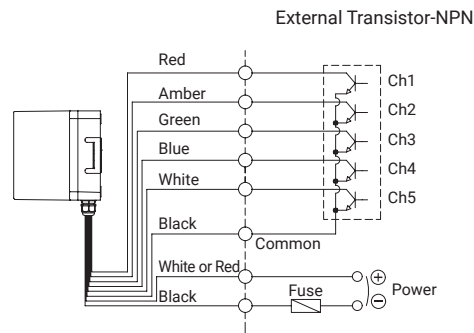
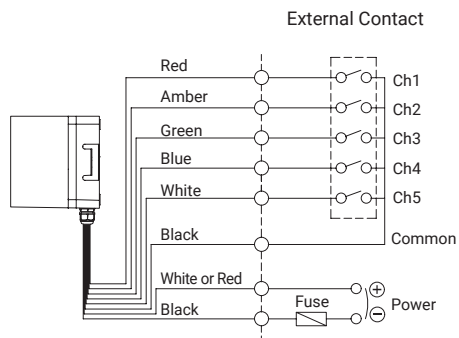
- External threading of signal line for sound selection(Model number: -LC)
- Support for CAN communication type products(QWCD35T DC only)
- Cold-resistance type(DC type only)

Wiring Instructions

- Standard specification: Uses internal switches
- Customization: Uses external contact

·QWCD35 / QWCD50-DC/AC

·QWCD35T / QWCD50T-DC/AC



- Wiring to external contact and transistor
 - Wiring to transistor, use the NPN transistor
 - External Power line - UL1015 AWG18(0.75sq) x 2C 400mm
 - External signal line - UL1007 AWG22(0.3sq) 400mm
 - DC type : Black output line is negative(-)
 - Channel selection : Bit input, 5 sound tones for each group
 - Binary input 31 sound tones output
- ※ Please refer to [Sound pattern and combination for multifunctional product] on this catalogue for channel input setting(Wiring instruction is replaced to channel selection switch)

LED Strobe Signal Beacon with Built-in High Volume Buzzer

QWCD Series

 IP66



 +50℃
-30℃

 BUZZER

 115dB

 RoHS

QWCD35B LED Strobe Signal Beacon with Built-in High Volume Buzzer

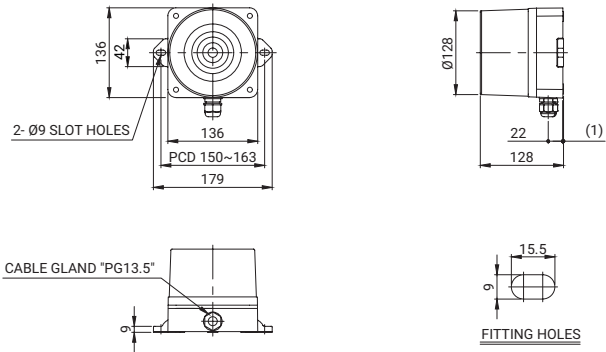
Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD35B	DC12V	800mA	·Buzzer volume : Max.115dB	 	0.78Kg	● R-Red
	DC24V	500mA			0.78Kg	● A-Amber
	AC110V-220V	Max.250mA			0.89Kg	● G-Green ● B-Blue

※ AC type model has a free-voltage range of 100V-240V.
※ UL Listed: DC12V-24V

Technical Diagram

·QWCD35B

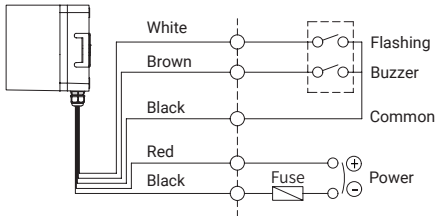
Units: mm



QWCD35B

Wiring Instructions

·QWCD35B



· DC type : Black output line is negative(-)

Ordering Specification

QWCD35B	-	110/220	-	R
[Model number]		[Voltage]		[Color]
QWCD35B		12-DC12V 24-DC24V 110/220-AC110V-220V		● R-Red ● A-Amber ● G-Green ● B-Blue

LED Strobe Signal Beacon with Built-in High Volume Buzzer

QWCD Series



QWCD35BT

QWCD35BT LED Strobe Signal Beacon with Built-in High Volume Buzzer

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD35BT	DC12V	800mA	·Buzzer volume : Max.115dB		0.86Kg	● R-Red
	DC24V	500mA			0.86Kg	● A-Amber
	AC110V-220V	Max.250mA			0.97Kg	● G-Green ● B-Blue

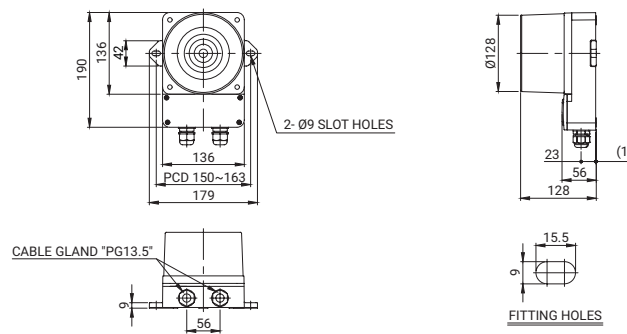
※ AC type model has a free-voltage range of 100V-240V.

※ UL Listed: DC12V-24V

Technical Diagram

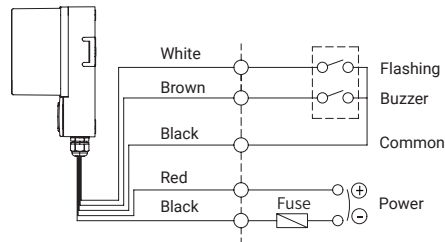
·QWCD35BT

Units: mm



Wiring Instructions

·QWCD35BT



· DC type : Black output line is negative(-)

Ordering Specification

QWCD35BT	-	110/220	-	R
[Model number]		[Voltage]		[Color]
QWCD35BT		12-DC12V 24-DC24V 110/220-AC110V-220V		● R-Red ● A-Amber ● G-Green ● B-Blue

Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound

QWH Series

Wall mount electronic sounder that offers 31 pre-recorded warning sounds and 31 user selected sound messages



- Bit input offers 5 channels with 6 sound outputs
- Binary input offers 31 sound outputs and SD Card (MP3) combination
- High volume type (buzzer type)

PRODUCT SPECIFICATION

QWH35(SD) | QWH50(SD)
QWH35T(SD) | QWH50T(SD)
QWH35B | QWH35BT

Materials Horn-PC+ABS, Housing-PC+ABS

Ambient operating temperature

-30°C to +50°C(Standard type/buzzer type)

-50°C to +50°C(Low temperature type only DC)

-20°C to +50°C(SD Card type)

Cable entry PG 13.5

Protection rating IP66

Compliant with RoHS directive

- Signal fit for the specific environment and condition
- Options to select between 31 special warning sounds included in the pre-recorded sound type and SD Card(MP3) type
- Volume adjustment and sound selection switches located inside the unit. SD Card in the unit offers convenient operation.
- SD Card type allows the user to input the proper voice messages for specific operating conditions.
- Built-in special alarm type standard model and MP3(SDcard)
- Supports Binary Input Mode and Bit Input Mode for SD card
- * Bit Input Mode can select and play 5 sounds from No. 1 to No. 5 on MP3 files of SDcard
- Tightly sealed structure that blocks water and dust with IP66 protection rating suitable for outdoor installation
- QWH35T, QWH35TSD, QWH50T, QWH50TSD allow for easy wiring with separate terminal box (Built-in terminal block for wiring inside product)
- High-volume buzzer output(QWH35B,QWH35BT)
- Support for CAN communication type products (Customization : QWH35, QWH35T)

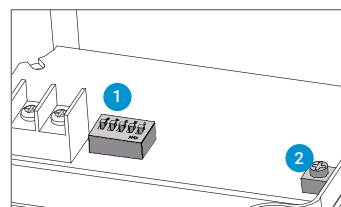
Sound Selection and Volume Adjustment Instructions

QWH Series has control switches inside the unit for sound selection and volume adjustment. You can play customized sound message(MP3) with SD Card.

QWH Series Product Category

QWH35(T)	Standard pre-recorded sound type
QWH35(T)SD	MP3(SD Card) type
QWH50(T)	Standard pre-recorded sound type, high volume output
QWH35(T)SD	MP3(SD Card) type, high volume output
QWH35B(T)	High volume type

Pre-recorded sound type



- 1 Sound selection switch
- 2 Volume

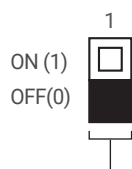
The input method of built-in sound type

ON	1	2	3	4	5
OFF					
No.	1	2	3	4	5
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	1	0
:	:	:	:	:	:
31	1	1	1	1	1

Select from 31 pre-recorded output sound options by using a combination of the 5 channel input switches. Selecting one sound by combining 5 switches is binary input method The binary input method allows you to express each of the 31 alarm sound signals with a "0" or "1" by switching the 5 channels on and off as shown in the table.

Sound selection instruction for SD Card type

- You can select between pre-recorded sound mode and SD Card sound (MP3) mode with the SOUND selection switch.



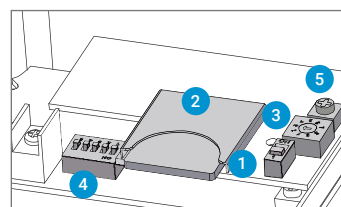
- 31 built-in alarm sounds and special sound
- Supports SD Cards for external sound (MP3)
- Binary Input: 31Ch
- Bit Input: 5Ch(SD Card only)
- Please refer to [Sound pattern and combination for special alarm product] on this catalogue for detailed settings.

Selection between pre-recorded sound mode and SD Card sound mode

0: pre-recorded sound mode

1: SD Card sound mode

SD Card (MP3) type



- 1 Sound setting switch
- 2 MP3 playable SD Card slot
- 3 Play mode setting switch
- 4 Sound selection switch
- 5 Volume

Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound

QWH Series



QWH35 Series
(Max.115dB)



QWH50 Series
(Max.123dB)

QWH35 Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound, Max.115dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH35 Built-in standard sound	DC12V-24V	Max.1.15A	·Bit Input: 5Ch (SD Card) ·Binary Input: 31Ch ·Warning sounds: Max.115dB (Based on Ch31) ·MP3: Max.112dB	CE UL	0.90kg
	AC110V-220V	Max.300mA			
QWH35SD MP3	DC12V-24V	Max.1.15A			1.00kg
	AC110V-220V	Max.300mA			

※ UL Listed: DC12-24V

QWH50 Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound, Max.123dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH50 Built-in standard sound	DC12V-24V	Max.3.6A	·Bit Input: 5Ch (SD Card) ·Binary Input: 31Ch ·Warning sounds: Max.123dB (Based on Ch16) ·MP3: Max.115dB	CE UL	2.70kg
	AC110V-220V	Max.730mA			
QWH50SD MP3	DC12V-24V	Max.3.6A			2.80kg
	AC110V-220V	Max.730mA			

※ DC type model has a free-voltage range of 10V-30V.

※ AC type model has a free-voltage range of 100V-240V.

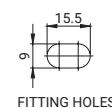
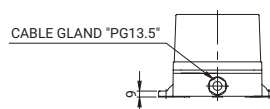
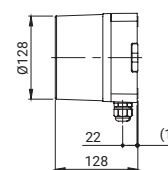
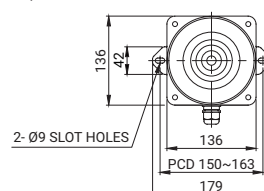
※ UL Listed: DC12-24V

※ When playing MP3 files, there may be difference of volume depending on user's audio file type.

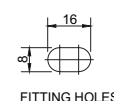
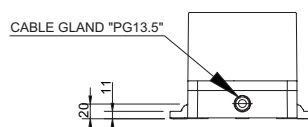
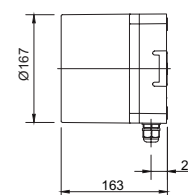
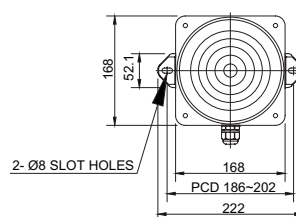
Technical Diagram

Units: mm

·QWH35/QWH35SD



·QWH50/QWH50SD

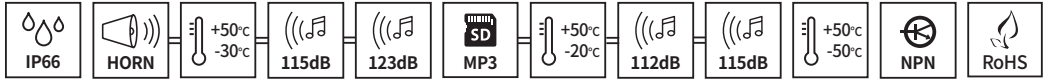


Customization

- External threading of signal line for sound selection(Model number: -LC)
- Support for CAN communication type products(QWH35 DC only)
- Cold-resistance type(DC type only)

Wiring Instructions

QWH50	110/220	LC	INSD
[Model number]	[Voltage]	[sound selection]	[Including SD card]
QWH35 QWH35SD QWH50 QWH50SD	12/24-DC12V-24V 110/220-AC110V-220V	None-Standard type LC Type-Uses external contact	None-Without SD card INSD-Including SD card



QWH35T Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound, Max.115dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH35T Built-in standard sound	DC12V-24V	Max.1.15A	·Bit Input: 5Ch (SD Card) ·Binary Input: 31Ch ·Warning sounds: Max.115dB (Based on Ch31) ·MP3: Max.112dB	CE UL	1.10kg
	AC110V-220V	Max.300mA			
QWH35TSD MP3	DC12V-24V	Max.1.15A			1.15kg
	AC110V-220V	Max.300mA			

※ UL Listed: DC12-24V

QWH50T Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound, Max.123dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH50T Built-in standard sound	DC12V-24V	Max.3.6A	·Bit Input: 5Ch (SD Card) ·Binary Input: 31Ch ·Warning sounds: Max.123dB (Based on Ch16) ·MP3: Max.115dB	CE UL	3.00kg
	AC110V-220V	Max.730mA			
QWH50TSD MP3	DC12V-24V	Max.3.6A			3.10kg
	AC110V-220V	Max.730mA			

※ DC type model has a free-voltage range of 10V-30V.

※ AC type model has a free-voltage range of 100V-240V.

※ UL Listed: DC12-24V

※ When playing MP3 files, there may be difference of volume depending on user's audio file type.

Allows for easy wiring with terminal box and 2 cable gland equipped



QWH35T Series
(Max.115dB)

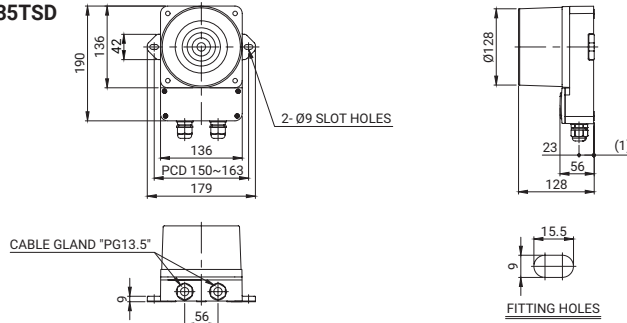


QWH50T Series
(Max.123dB)

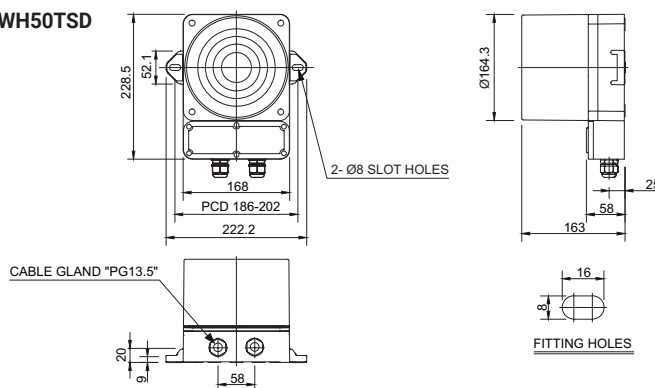
Technical Diagram

Units: mm

·QWH35T / QWH35TSD



·QWH50T / QWH50TSD



Ordering Specification

QWH35T	110/220	LC	INSD
[Model number]	[Voltage]	[sound selection]	[Including SD card]
QWH35T QWH35TSD QWH50T QWH50TSD	12/24-DC12V-24V 110/220-AC110V-220V	None-Standard type LC Type-Uses external contact	None-Without SD card INSD-Including SD card

Customization

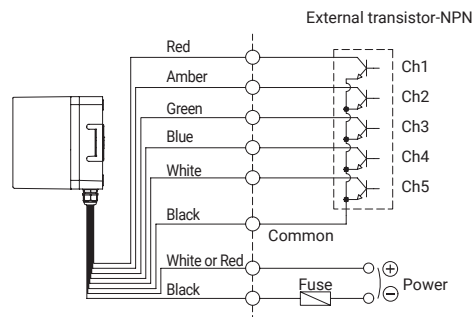
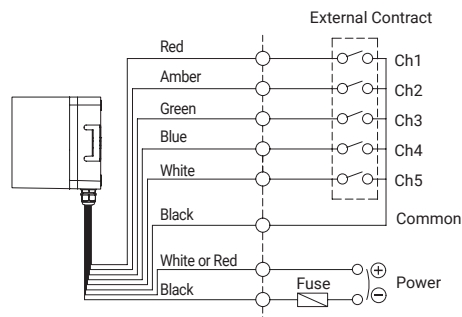
- External threading of signal line for sound selection(Model number: -LC)
- Support for CAN communication type products(QWH35T DC only)
- Cold-resistance type(DC type only)

Wiring Instructions

- Standard specification: Uses internal switches
- Customization: Uses external contact

·QWH35 / QWH50-DC/AC

·QWH35T / QWH50T-DC/AC



- Channel selection, 5 sounds available with Bit input and 31 sound available with Binary input
- DC type : Black output line is negative(-)
- ※ Please refer to [Sound pattern and combination for multifunctional product] on this catalogue for channel input setting(Wiring instruction is replaced to channel selection switch).

Wall Mounted Type Electronic Sounder with High Volume

QWH Series

 IP66



 +50°C
-30°C

 BUZZER

 115dB

 RoHS

QWH35B Wall Mounted Type Electronic Sounder with High Volume, Max.115dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH35B	DC12V	385mA	·Buzzer volume : Max.115dB	 	0.70Kg
	DC24V	365mA			0.70Kg
	AC110V-220V	Max.145mA			0.81Kg

※ AC type model has a free-voltage range of 100V-240V.
※ UL Listed: DC12V-24V

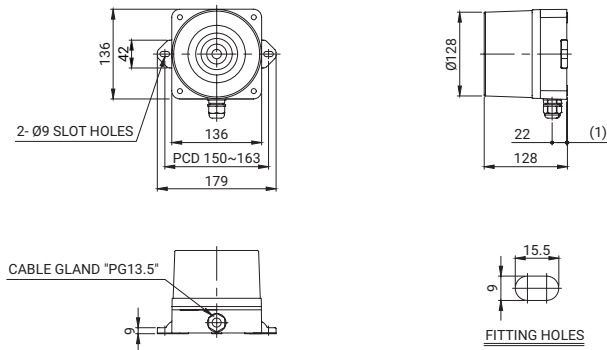


QWH35B
(Max.115dB)

Technical Diagram

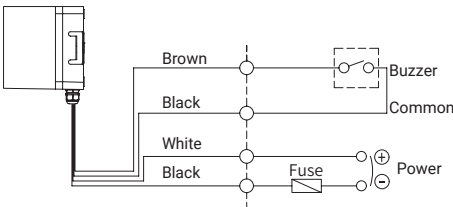
Units: mm

·QWH35B



Wiring Instructions

·QWH35B



· DC type : Black output line is negative(-)

Wiring Instructions

QWH35B	-	110/220
[Model number]		[Voltage]
QWH35B		12-DC12V 24-DC24V 110/220-AC110V-220V

Wall Mounted Type Electronic Sounder with High Volume

QWH Series

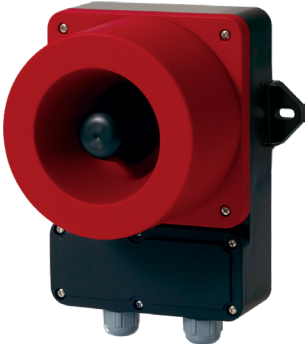
IP66

+50℃
-30℃

BUZZER



115dB

RoHS



QWH35BT
(Max. 115dB)

QWH35BT Wall Mounted Type Electronic Sounder with High Volume, Max. 115dB

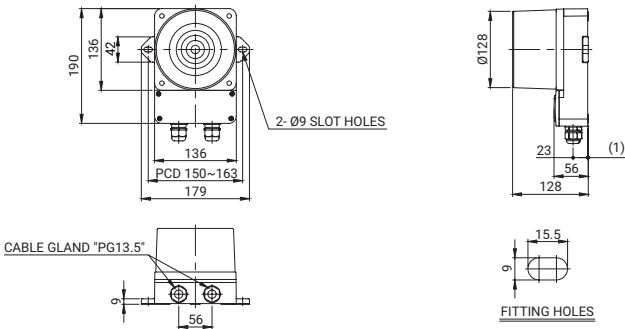
Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH35BT	DC12V	385mA	·Buzzer volume : Max.115dB	 	0.72Kg
	DC24V	365mA			0.72Kg
	AC110V-220V	Max.145mA			0.81Kg

※ AC type model has a free-voltage range of 100V-240V.
※ UL Listed: DC12V-24V

Technical Diagram

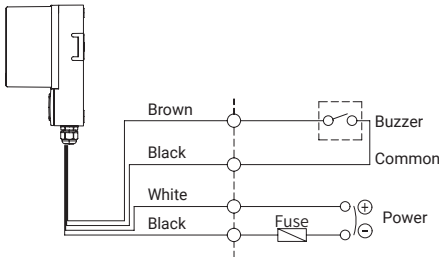
Units: mm

·QWH35BT



Wiring Instructions

·QWH35BT



· DC type : Black output line is negative(-)

Wiring Instructions

QWH35BT	-	110/220
[Model number]		[Voltage]
QWH35BT		12-DC12V 24-DC24V 110/220-AC110V-220V

Electronic Sounders for Vessels and Heavy Industrial Applications

SEWN30 / SEWN50 Series



Electronic sounders for vessels and heavy industrial applications featuring excellent sealing, corrosion resistance, and durability

PRODUCT SPECIFICATION

SEWN30 | SEWN50

Materials Housing-Al, Horn housing-PC
Ambient operating temperature -30°C to +50°C
Protection rating IP66
Standard Housing color MUNSELL No. 7.5BG 7/2
Cable entry 1/2" PF

- Electronic Sounder with tightly sealed structure has excellent durability. Suitable for vessels, steel industry, and outdoor plant applications
- Can select between a variety of mounting options (wall mount type, self stand type, and terminal box type)
- Aluminum housing provides excellent durability
- A variety of sound selection between warning sounds, alarm sounds, melodies and voice messages to fit your sophisticated application needs
- Can adjust sound volume with the dial built inside the unit
- Terminals located inside the terminal box or product



SEWN30E
(Max.114dB)



SEWN30L
(Max.114dB)



SEWN30T
(Max.114dB)

SEWN30 Series Electronic Sounders, Max.118dB

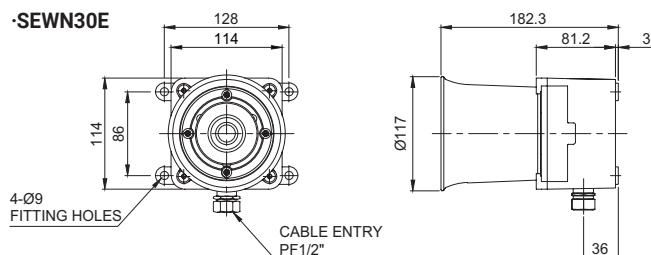
Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SEWN30E Wall mount	DC12V	2.2A	·WS-5 Warning sounds : Max.114dB		SEWN30E DC-1.76kg AC-2.11kg
SEWN30L Self stand	DC24V	1A	·WP-5 Special warning sounds : Max.114dB		SEWN30L DC-1.74kg AC-2.13kg
SEWN30T Wall mount with terminal box	AC110V AC220V	260mA 130mA	·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices : 108-113dB		SEWN30T DC-2.23kg AC-2.58kg

- ※ Please refer to [Sound tone and combination for standard product] on this catalogue for detailed sound tone specification
- ※ CE compliant : AC220V, DC24V
- ※ CCS compliant : SEWN30E only
- ※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch4 / WA-Ch4.
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

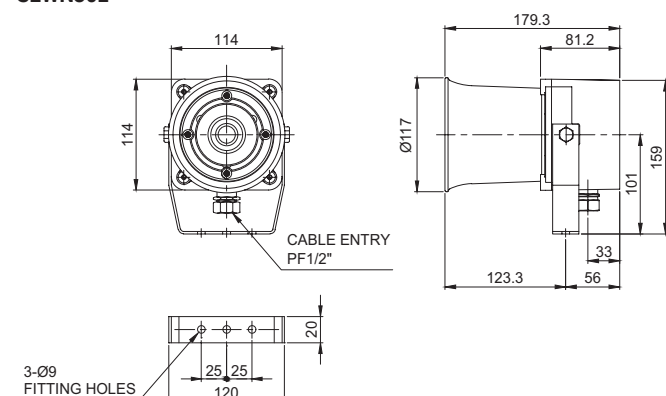
Technical Diagram

Units: mm

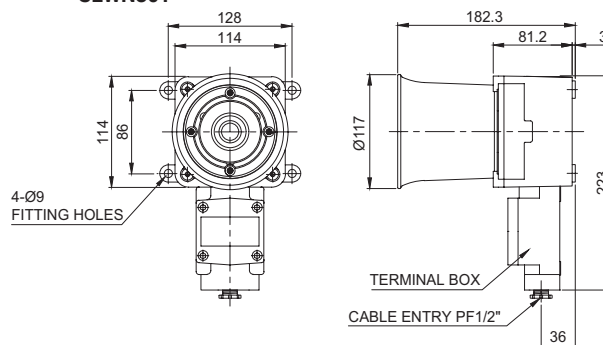
·SEWN30E



·SEWN30L



·SEWN30T



SEWN30 / SEWN50 Series

SEWN50 Series Electronic Sounders, Max.120dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SEWN50E Wall mount	DC12V	2.5A	·WS-5 Warning sounds : Max.120dB	CE	SEWN50E DC-4.22kg AC-4.52kg
SEWN50L Self stand	DC24V	1.18A	·WP-5 Special warning sounds : Max.120dB		SEWN50L AC-4.20kg AC-4.50kg
SEWN50T Wall mount with terminal box	AC110V	300mA	·WM-5 Melodies: Max.115dB ·WA-5 Alarms: Max.118dB		SEWN50T DC-4.65kg AC-4.95kg
	AC220V	160mA	·WV-5 Customizable voices : 109-117dB		

※ Please refer to [Sound tone and combination for standard product] on this catalogue for detailed sound tone specification

※ CE compliant : DC24V

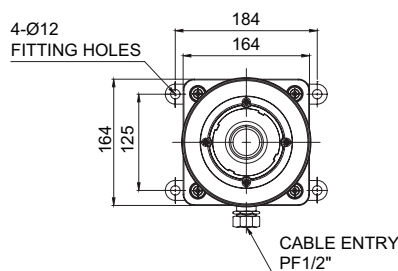
※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

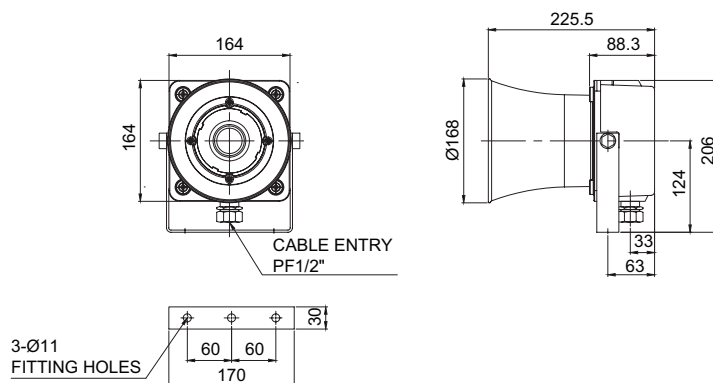
Technical Diagram

Units: mm

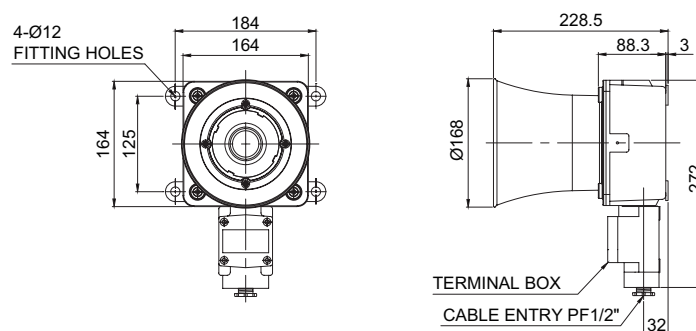
·SEWN50E



·SEWN50L



·SEWN50T



SEWN50E/ SEWN50L model uses flexible connector at cable entry and SEWN50T model uses 15C nipple at cable entry.
Cable gland is customizable



Flexible connector



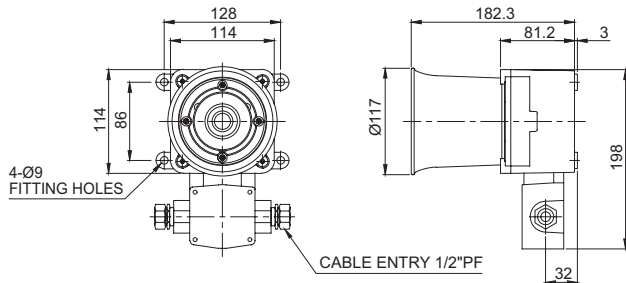
15C nipple



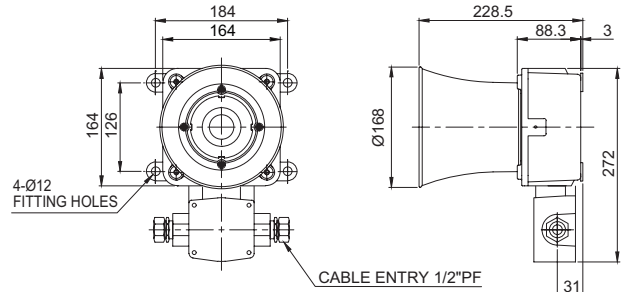
2 Cable Entries Terminal Box Type Technical Diagram

Units: mm

·SEWN30-2T

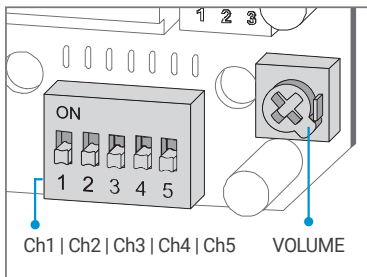


·SEWN50-2T



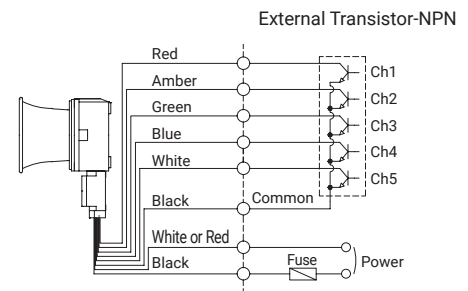
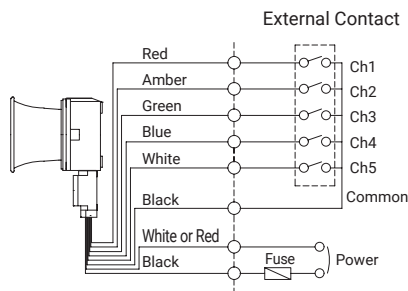
Sound Selection Instructions and Wiring

· Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



·SEWN30E / SEWN30L / SEWN30T-DC/AC

·SEWN50E / SEWN50L / SEWN50T-DC/AC



· Customized type : Select sound using the external contact(LC)

You can select the audible sound pattern using external contacts or transistor with a customized external sound line(Model number : -LC)

· This product can be wired regardless of polarity.

Customization



Brass housing product



2 cable entries terminal box type

· Cable gland available

· 3/4"PF cable entry (Standard : 1/2"PF).

· 2 cable entries terminal box: Customized terminal box available with two cable entries in opposite directions(Model number : SEWN30-2T, SEWN50-2T)

· External threading of sound line (Model number : -LC)

· Brass housing product: Brass housing products provide improved corrosion resistance.

※ Color will be MUNSSELL No. 7.5BG 7/2 when released.

· Horn housing materials: STS316L

Ordering Specification

SEWN30T	-	WS	-	220	-	LC
[Model number]		[Sound]		[Voltage]		[sound selection]
SEWN30E		WS-Warning sounds		12-DC12V		None-Built-in switch
SEWN30L		WP-Special warning sounds		24-DC24V		LC-External contact
SEWN30T		WM-Melodies		110-AC110V		
SEWN50E		WA-Alarms		220-AC220V		
SEWN50L		WV-Customizable voices				
SEWN50T						

Dual-Facing Electronic Sounders for Vessels and Heavy Industry Applications

SHDN30



PRODUCT SPECIFICATION

SHDN30

Materials Housing-Al, Horn housing-PC

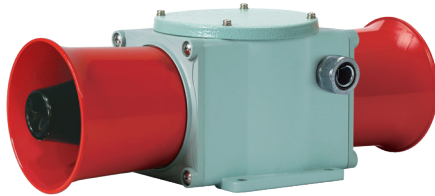
Ambient operating temperature -30°C to +50°C

Protection rating IP56

Cable entry 1/2" PF

Standard Housing color MUNSELL No. 7.5BG 7/2

Can adjust sound volume with the switch built inside the unit



SHDN30
(Max.114dB x 2)

- Alarm horns with tightly sealed structure has excellent durability. Suitable for vessels, steel industry, and outdoor plant applications
- Alarm horns with tightly sealed structure has excellent durability. Suitable for vessels, steel industry, and outdoor plant applications
- Aluminum housing provides excellent durability
- A variety of sound selection between warning sounds, alarm sounds, melodies and voice messages to fit your sophisticated application needs
- Terminals located inside the terminal box or product

SHDN30 Electronic Sounders, Max.114dBx2 Direct Mount Type

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SHDN30	DC12V	3A	·WS-5 Warning sounds: Max.114dBx2	-	3.49kg
	DC24V	2.15A	·WP-5 Special warning sounds: Max.114dBx2		
	AC110V	500mA	·WM-5 Melodies: Max.110dBx2		4.21kg
	AC220V	240mA	·WA-5 Alarms: Max.114dBx2 ·WV-5 Customizable voices: 108-113dBx2		

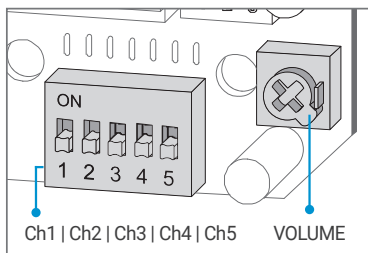
※ Please refer to [Sound tone and combination for standard product] on this catalogue for detailed sound tone specification.

※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch4 / WA-Ch4.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Sound Selection Instructions

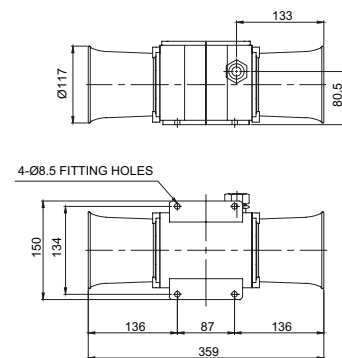
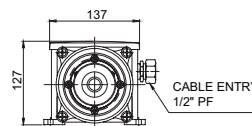
- Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played. designated sound will be played.



- Customized type : Select using the external contact(LC)
You can select the audible sound pattern using external contacts or transistor with a customized external sound line(Model number : -LC).
- Product can be wired regardless of polarity.

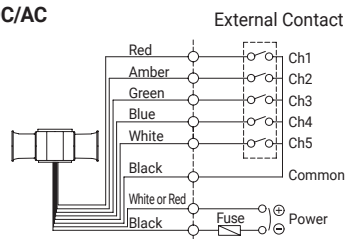
Technical Diagram

Units: mm

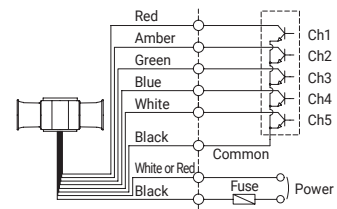


Wiring Instructions

SHDN30-DC/AC



External Transistor-NPN



Customization

- 3/4" PF Cable entry
- Customized external sound line type available

Ordering Specification

SHDN30	-	WP	-	110	-	LC
[Model number]		[Sound]		[Voltage]		[Sound selection]
SHDN30		WS-Warning sounds WP-Special warning sounds WM-Melodies WA-Alarms WV-Customizable voices		12-DC12V 24-DC24V 110-AC110V 220-AC220V		None-Built-in switch LC-External contact

Alarm Bells with Lamp for Vessels and Heavy Industrial Applications

SAB Series



SAB130-Bell housing Ø130mm SAB200-Bell housing Ø200mm

PRODUCT SPECIFICATION

SAB130 | SAB200

Materials Bell-Steel, Housing-ABS
Ambient operating temperature -25°C to +50°C
Protection rating IP44
Standard color Housing-beige, Bell/Lamp-Red
Cable entry Ø20

- Electric solenoid bell system provides excellent durability to vibration and shock for vessels and large facilities
- Special material for bell housing provides clear and crisp alarm sound
- Easy wiring and maintenance with terminal box attached
- Lamp attached provides visual signals
- Bell and lamp operation is synchronized. Each function can also operate separately



SAB130
(Max.95dB)

SAB130 / SAB200 Alarm Bells with Lamp for Vessels and Heavy Industrial Applications , Max.95dB

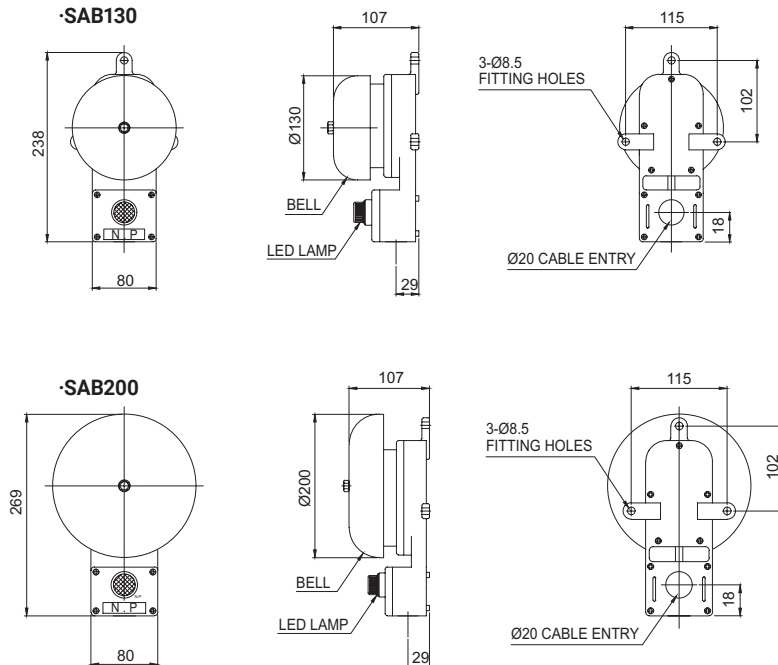
Model number	Frequency	Volume	Bell diameter	Voltage	Current	Certificates	Weight	Color
SAB130	400	Max.95dB	130mm	DC24V	1.3A	CE	1.88kg	● R-Red
SAB200	-600Hz		200mm	AC110V	380mA		2.00kg	
				AC220V	300mA			



SAB200
(Max.95dB)

Technical Diagram

Units: mm



Precautions for Use

- The continuous operation of the product is up to 3 minutes.

Ordering Specification

SAB200	-	110	-	CG
[Model number]		[Voltage]		[Cable gland]
SAB130 SAB200		24-DC24V 110-AC110V 220-AC220V		None-Back wiring type CG-Built-in cable gland type

Customization

- Two way cable entries with PG19

Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound

SN / SEHN25 / SEHN50



SN
(Max.100dB)



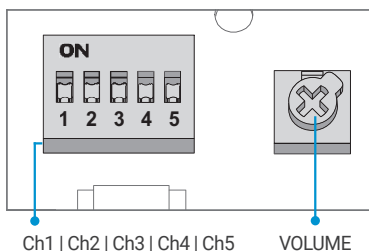
SEHN25
(Max.115dB)



SEHN50
(Max.118dB)

Wiring Instructions

- Standard specification
- Uses internal switches
- When each channel dip switch is on, a related sound will be played



PRODUCT SPECIFICATION

SN | SEHN25 | SEHN50

Materials Housing-Steel, Horn housing -Steel
Ambient operating temperature -25°C to +50°C
Protection rating IP55
Housing standard color Red

- Steel housing provides excellent vibration and shock resistance under seismic conditions
- A variety of sound selections between warning sounds, alarm sounds, melodies and voice messages to fit your sophisticated application needs
- Can adjust sound volume with the switch built inside the unit

SN Electronic Sounder, Max.100dB Self Stand Type

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SN	DC12V-24V	Max.265mA	·WS-5 Warning sounds: Max.98dB ·WM-5 Melodies: Max.98dB	CE	0.91kg
	AC110V	65mA	·WA-5 Alarms: Max.100dB		1.06kg
	AC220V	30mA	·WV-5 Customizable sounds: 92-96dB		

※ CE compliant : DC12V-24V, AC220V

※ Max.built-in volume feature is based on WS, WP-Ch3 / WM-Ch4 / WA-Ch4.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

SEHN25 Electronic Sounder, Max.115dB Self Stand Type

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SEHN25	DC12V	2.2A	·WS-5 Warning sounds: Max.115dB	-	2.26kg
	DC24V	1A	·WM-5 Melodies: Max.115dB		2.48kg
	AC110V	220mA	·WA-5 Alarms: Max.113dB		
	AC220V	110mA	·WV-5 Customizable sounds: 99-112dB		

※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch2.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

SEHN50 Electronic Sounder, Max.118dB Self Stand Type

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SEHN50	DC12V	2.45A	·WS-5 Warning sounds: Max.118dB	-	2.67kg
	DC24V	1.15A	·WM-5 Melodies: Max.115dB		3.30kg
	AC110V	280mA	·WA-5 Alarms: Max.118dB		
	AC220V	170mA	·WV-5 Customizable sounds: 108-118dB		

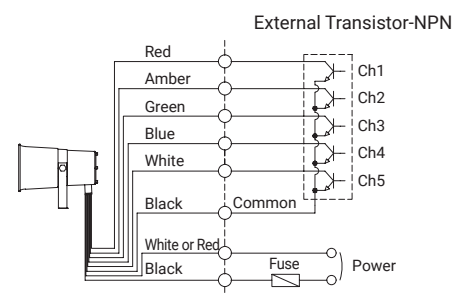
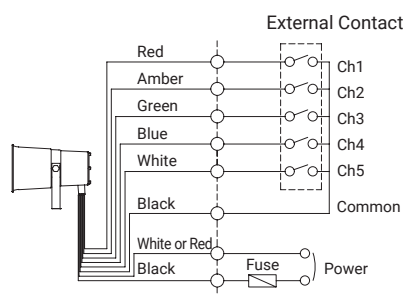
※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch4 / WA-Ch2.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

※ Please refer to [Sound tone and combination for standard product] on this catalogue for detailed sound tone specification

·SN / SEHN25 / SEHN50-DC/AC

- Customization: Uses external contact(LC)



· External power line - VCTF(0.75sq) x 2C 400mm

· LC type external signal line - UL1007 AWG22(0.3sq) 400mm

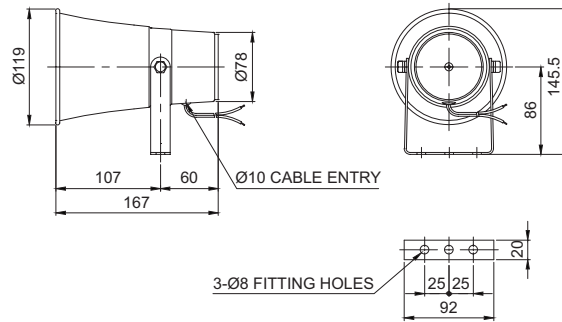
· Product can be wired regardless of polarity.



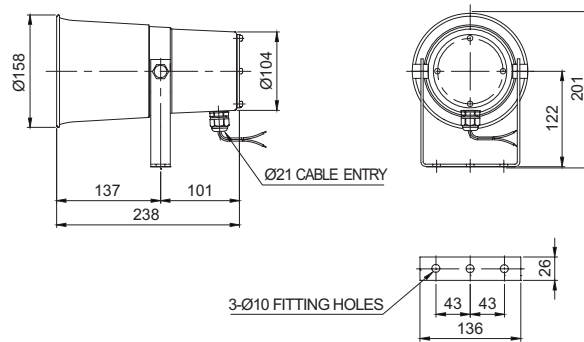
Technical Diagram

Units: mm

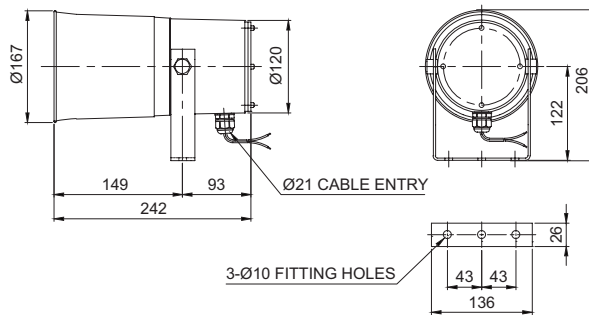
·SN



·SEHN25



·SEHN50



Customization

- You can select the audible sound pattern using External Contacts or transistor with a customized external sound line. (Model number : -LC)

Ordering Specification

SEHN25	-	WA	-	220	-	LC
[Model number]		[Sounds]		[Voltage]		[sound selection]
SN SEHN25 SEHN50		WS-Warning WM-Melody WA-Alarm WV-Customizable sound		12-DC12V 24-DC24V 12/24-DC12V-24V(SN only) 110-AC110V 220-AC220V		None-Built-in switch LC Type-Uses external contact



SM30
(Max.110dB)



SM40
(Max.116dB)

PRODUCT SPECIFICATION

SM30 | SM40

Materials SM30-Steel, SM40-ABS

Ambient operating temperature -25°C to +50°C

Housing standard color SM30-Red, SM40-Gray

Motor RPM SM30-10,000RPM, SM40- 7,000RPM

Insulation resistance 100MΩ(at 500VDC)

- SM30: Ø80mm compact structure with 110dB sound output
- SM40: Ø100mm compact structure with 116dB sound output

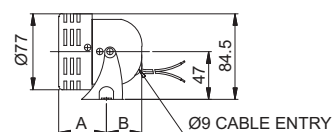
SM30 Miniature Motor Siren, Max.110dB

Model number	Volume	Voltage	Current	Certificates	Weight	Rated time
SM30	Max.110dB	DC12V	5A	-	0.22kg	10 min
		DC24V	3A		0.22kg	
		AC110V	1.25A		0.42kg	
		AC220V	750mA		0.42kg	

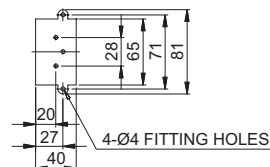
Technical Diagram

Units: mm

-SM30



MODEL	A(mm)	B(mm)
SM30-DC	47	35
SM30-AC	72.5	32



Precautions for Use

Continuous operation rating time is 10 mins. Over 10 mins of continuous operation may cause motor damage. Please be careful.

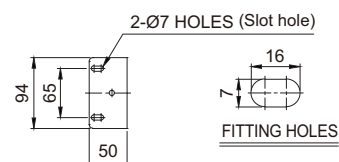
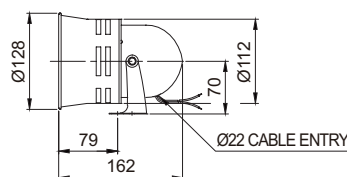
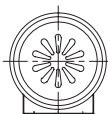
SM40 Miniature Motor Siren, Max.116dB

Model number	Volume	Voltage	Current	Certificates	Weight	Rated time
SM40	Max.116dB	DC12V	4.5A	-	0.53kg	10 min
		DC24V	3A		0.53kg	
		AC110V	1A		0.68kg	
		AC220V	730mA		0.68kg	

Technical Diagram

Units: mm

-SM40



Ordering Specification

SM30	-	24
[Model number]		[Voltage]
SM30		12-DC12V
SM40		24-DC24V
		110-AC110V
		220-AC220V



PRODUCT SPECIFICATION

SM200 | SM400

Materials SM200-Steel/Al, SM400-Steel/ABS
Ambient operating temperature -25°C to +50°C
Housing standard color Red
Motor RPM SM200-7,200RPM, SM400- 7,600RPM
Insulation resistance 100MQ(at 500VDC)

- SM200: Excellent durability and high volume are suitable for noisy environment
- SM400: 123dB high volume model suitable for long-distance audible signal in noisy environments



SM200
(Max.120dB)



SM400
(Max.123dB)

SM200 Motor Siren Max.120dB

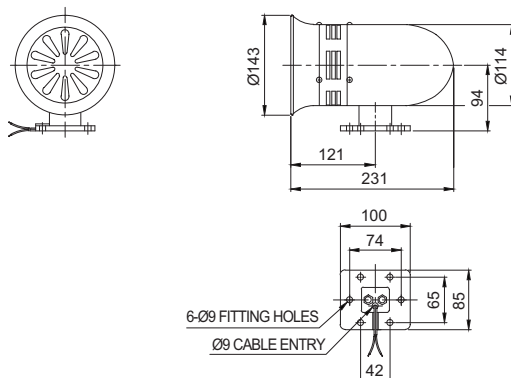
Model number	Volume	Voltage	Current	Certificates	Weight	Rated time
SM200	Max.120dB	DC24V	11A	CE	2.19kg	10 min
		AC110V	2.85A		2.55kg	
		AC220V	1.5A		2.55kg	

※ CE compliant : DC24V

Technical Diagram

Units: mm

·SM200



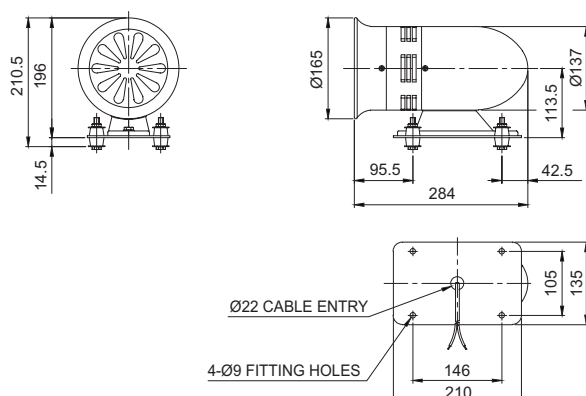
SM400 Motor Siren Max.123dB

Model number	Volume	Voltage	Current	Certificates	Weight	Rated time
SM400	Max.123dB	DC24V	5.5A	-	3.19kg	3 min
		AC110V	4A		3.75kg	
		AC220V	3A		3.75kg	

Technical Diagram

Units: mm

·SM400



Precautions for Use

The rated continuous operation time of motor siren SM200 is 10 minutes, and the rated continuous operation time of SM400 is 3 minutes. Please be careful as continuous operation outside of the rated time of each motor siren may cause damage to the motor.

Ordering Specification

SM200	-	24
[Model number]		[Voltage]
SM200		24-DC24V
SM400		110-AC110V
		220-AC220V

SAANA Series



SAANA200

PRODUCT SPECIFICATION

SAANA200 | SAANA400 | SAANA700

Materials Horn-PC, Solenoid valve box-ABS
Ambient operating temperature -20°C to +60°C
Protection rating IP56
Air pressure 5-7kg/cm²
Housing standard color
 R-Red, BK-Black, Cian-MUNSELL No.7.5BG 7/2
Volume Max.130dB at 1m

- High volume horn uses compressed air to power the high pitched sound made with the diaphragm
- Uses a special material which consumes a small quantity of compressed air and has long durability
- Suitable for applications like a large and noisy engine rooms, a phone alarm in a pump room, or as an emergency alarm

- **SAANA200: 200-300Hz**
- **SAANA400: 400-600Hz**
- **SAANA700: 700-800Hz**

SAANA Series Air Horns for Vessels and Heavy Industrial Applications, Max.130dB

Model number	Frequency	Volume	Voltage	Current	Certificates	Weight	Color
SAANA200	200-300Hz	Max.130dB	DC24V	450mA	-	1.19kg	● R-Red
SAANA400	400-600Hz		AC110V	200mA		1.13kg	● BK-Black
SAANA700	700-800Hz		AC220V	100mA		1.07kg	● 7.5BG-Cian

※ If you need a product for use in a vehicle or in a place subject to severe vibration or impact, please contact us.

Customization

- Horn and solenoid valve box available separately for individual installation
- Non return valve, Y filter installation and regulator



Non return valve



Y filter



Regulator

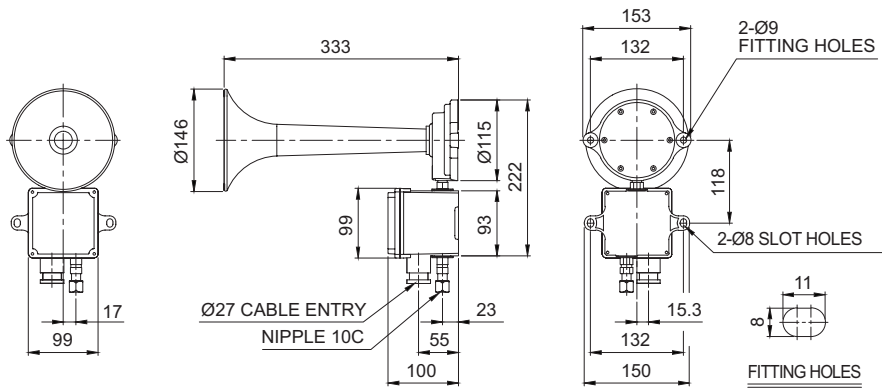
Ordering Specification

SAANA200	-	220	-	R
[Model number]		[Voltage]		[Color]
SAANA200		24-DC24V		● R-Red
SAANA400		110-AC110V		● BK-Black
SAANA700		220-AC220V		● 7.5BG-Cian

Technical Diagram

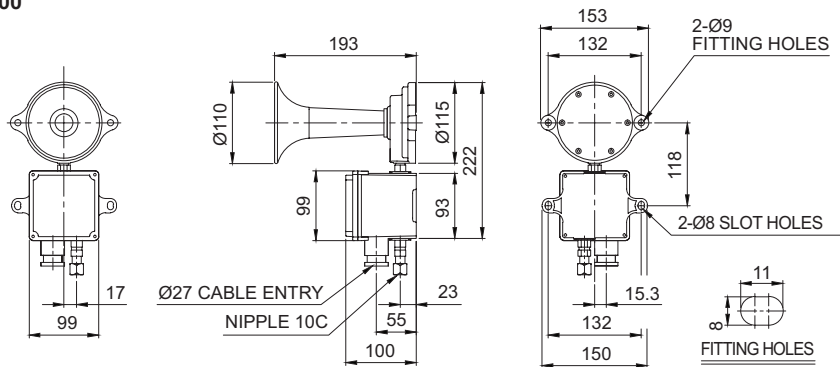
Units: mm

·SANA200



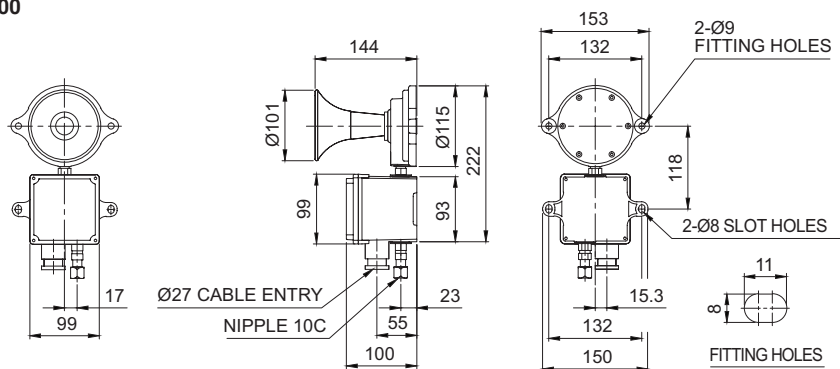
SANA400

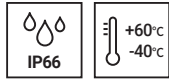
·SANA400



SANA700

·SANA700





QEB

PRODUCT SPECIFICATION
QEB

Materials Housing, Cover-Al
Ambient operating temperature -40°C ≤ Tamb ≤ +60°C
Protection rating Ex d IIC T6, IP66
Housing standard color MUNSELL No.7.5BG 7/2

QEB Explosion Proof Solenoid Valve Box

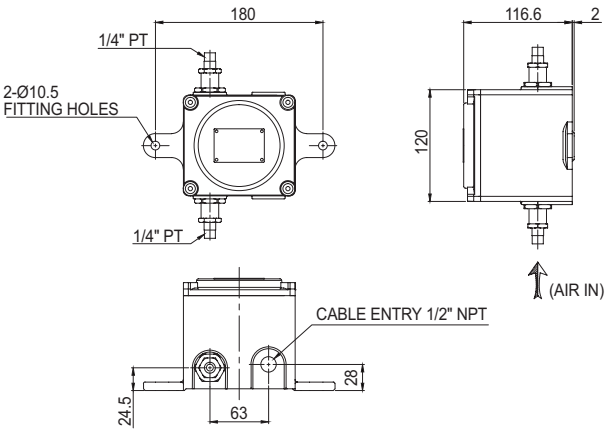
Model number	Voltage	Current	Certificates	Weight	Color
QEB	DC24V	450mA		1.19kg	
	AC110V	160mA		1.07kg	
	AC220V	75mA		1.07kg	

※ If you need a product for use in a vehicle or in a place subject to severe vibration or impact, please contact us.

Technical Diagram

Units: mm

·QEB



Customization

· explosion proof cable gland configuration

Ordering Specification

QEB	-	24
[Model number]		[Voltage]
QEB		24-DC24V
		110-AC110V
		220-AC220V

Explosion Proof Products



Product applications	P. 96
Technical data	P. 98
References	P. 103
Product introductions	P. 106

Explosion Proof Product Applications

Qlight's explosion-proof products are installed in a wide range of industrial sites to ensure the safety of workers, thanks to their exceptional quality. We produce certified products such as IECEx(International Explosion Proof Certification) and ATEX(European Explosion-proof Certification). This allows you to freely choose products that are suitable for the environment and working conditions of your facility.



Semiconductor Factory

Applied in a plumbing system for flammable materials used in the semiconductor manufacturing process



Power Plant

Applied in hazardous areas with possibilities of explosion cause by coal dust in thermal power plants



Petrochemical Plant

Applied in areas such as refineries where explosive materials are always present



Nuclear Power Plant

Applied in areas where explosive materials are always present such as pipes and ducts of a generator cooling system



Oil Tanker

Applied in areas where explosive materials are always present such as ships carrying oil and gas



Electric Facilities

Applied in electrical equipment where flammable gas, vapor or dust exist



Flour Factory

Applied in danger zones where there is a possibility of explosion caused by grain dust



Offshore Plant

Applied in mining equipment which produces or stores flammable materials such as oil and gas



Coal Mine

Applied in areas where hazardous materials such as coal dust is always present



Steel Industry

Applied in danger zones where hazardous materials such as gas is always present



Gas Station

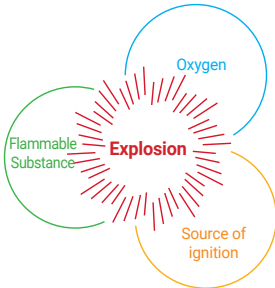
Applied in danger zones where flammable materials are stored



Metal Processing Industry

Applied in danger zones where explosive metal, dust, and flammable gas are always present

Technical Data for Explosion Proof Products



• 3 elements of explosion

Flammable substance, ignition source, and oxygen are the 3 elements of an explosion. The explosion will occur when the three components are met. If one of the three components does not exist the explosion will not occur.

• What is explosion proof?

Preventing the combination of the 3 elements of explosion.

• Explosion proof product

Typically, products will include electrical parts that can be an explosion ignition source. However, explosion proof products are designed to prevent spark/ ignition.

Explosion Proof Structure Classifications

The data indicated below are some of the classification specifications by structure type of the explosion proof products. Furthermore, there are mold explosion proof structure, charging explosion proof structure and special explosion proof structure.

The explosion proof classification structure is separated depending on product application areas.



Flame Proof _ Ex d/Zone1, 2

All electrical circuits are enclosed in a house strong enough to contain any explosion or fire that may take place on the inside.



Purged/ Pressurized _ Ex p/Zone1, 2

Type of protection in which the protective inert gas inside the enclosure is maintained at a higher pressure than that of the surrounding atmosphere.



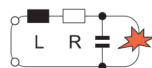
Increased Safety _ Ex e/Zone1, 2

Electrical circuits incorporate special measures to reduce the probability of excessive temperatures and the occurrence of arcs and sparks in normal service.



Non-Sparking _ Ex n/Zone2

Method of protection for electrical equipment designed so that it will not ignite the surrounding explosive atmosphere in normal operation and under certain fault conditions specified in the standard



Intrinsic Safety _ Ex i/Zone 0, 1, 2

The electrical energy available in circuits and equipment, is limited to a level to low to ignite the most easily ignitable mixtures in a hazardous area.

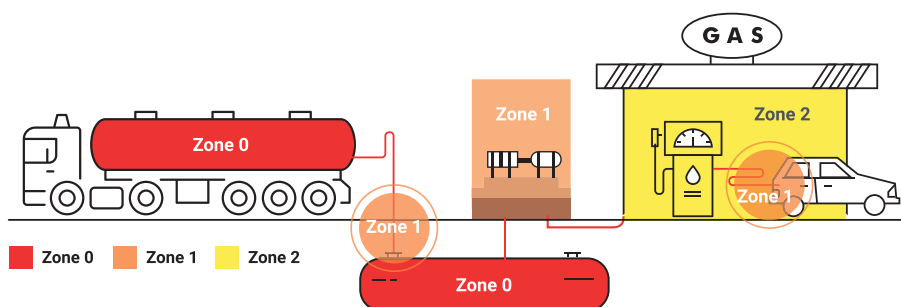


Dust Explosion Proof _ Ex td/Zone 21, 22

The apparatus is enclosed in a manner that will exclude ignitable amounts of dusts and will not permit arcs, sparks or heat generated or liberated inside the enclosures to cause ignition of exterior dust accumulations on the enclosure or of atmospheric dust suspensions in the vicinity of the enclosure.

Hazardous Area Classification

Zone 0	Where ignitable concentrations of flammable gases, vapors, or liquids are present continuously or for long periods of time under normal operating conditions.
Zone 1	Where ignitable concentrations of flammable gases, vapors, or liquids are likely to exist under normal operating conditions.
Zone 2	Where ignitable concentrations of flammable gases, vapors, or liquids can occur for only a short period of time.
Zone 20	Where explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, or for long periods or frequently.
Zone 21	Where explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur, occasionally, in normal operation.
Zone 22	Where explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for a short period only.



[Areas classification example]

Condition	IEC	NEC500	JIS, KS
Continuous hazard (more than 1,000 hours per year)	Zone 0 Zone 20(DUST)	Division 1	Zone 0
Intermittent hazard (10-1,000 hours per year)	Zone 1 Zone 21(DUST)		Zone 1
Possible hazard (0.1-10 hours per year)	Zone 2 Zone 22(DUST)	Division 2	Zone 2

Models Available for Each Zone

Area Classification	Model
Zone 1, 2	QTEX(B), SNE, SNES, QNE, QNES, SESA, SEA, SPNA, QLEX-SLM Series, QEAL1, SLP5130, EXTB130, SE, SSEL, SBE, SEBA
Zone 2	ST(B)45ML-Ex, QMFLN300-Ex
Zone 21	QTEX(B), SESA, SLP5130, EXTB130

* ZONE 1 and ZONE 21 products can be used in ZONE 2 and ZONE 22, respectively.



Classification by Group

Explosion proof equipment is classified as below depending on the risk characteristic of explosive gas.

EXPLOSION GROUP FLAMMABLE	FLAMMABLE SUBSTANCE	FLAMMABILITY
I	Methane	
IIA	Acetone, Petrol, Methanol, Propane, Toluene	Low
IIB	Ethylene, City gas	High
IIC	Hydrogen, Acetylene, Carbon sulphide	Very High

Temperature Class Definition

The temperature class is defined as below depending on the surface temperature of the explosion proof equipment.


The range of Maximum surface temperature per temperature class	
The range of Maximum surface temperature(°C)	Temperature class
300°C to 450°C	T1
200°C to 300°C	T2
135°C to 200°C	T3
100°C to 135°C	T4
85°C to 100°C	T5
Below 85°C	T6

The Ignition Class and Temperature of The Explosive Gas

- 1) If the temperature class gets higher from T1 to T6, the ignition temperature gets lower.
- 2) If the explosion group changes from to C, the explosion gets bigger.

	T1(G1)	T2(G2)	T3(G3)	T4(G4)	T5(G5)	T6(G6)
I	Methane					
IIA	Acetone, Ethane, Ethyl ethanoate Ammonia, Benzol(Pure) Ethanoic acid, Carbon oxide Methane, Methanol, Propane, Toluene Acetic acid, Ethyl acetate Ethyl chloride, Carbon Monoxide Methylene Chloride Naphthalene, Phenol	Ethanol i-Amyl acetate n-Butane n-Butyl alcohol Ethyl alcohol Cyclohexane Acetic anhydride	Benzine Diesel fuel Aircraft fuel Heating oils n-Hexane Petroleum spirit - Gen Jet propulsion fuel Heating fuel DIN 51603	Acetaldehyde Ethyl ether		
IIB	Town gas, Coal gas (lighting gas)	Ethylene Ethylene oxide	Ethylene Ethylene oxide	Ethyl ether		
IIC	Hydrogen	Ethine(Acetylene)				Carbon disulphide

Explosion Proof Marking

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
CE	2004		II	2	G	Ex d	IIC	T6	Gb	IP66	-40°C≤Tamb≤+60°C
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
	①	CE mark									
	②	Identification number of the notified body									
	③	Marking for equipment for use in explosive atmosphere									
	④	Explosion Proof group 'I'=Mines, 'II'=Surface industries									
	⑤	'1'=Zone 0, '2'=Zone 1, '3'=Zone 2									
	⑥	'M'=methane gas, 'G'=gas, 'D'= dust									
	⑦	Types of protection									
	⑧	Equipment groups									
	⑨	Temperature class									
	⑩	'Ga'=Zone 0, 'Gb'= Zone 1, 'Gc'=Zone 2									
	⑪	Protection rating(IP)									
	⑫	Ambient operating temperature									

Area Classification

Classification of flammable material according to NEC500.

AREA CLASSIFICATION			
	Continuous hazard	Intermittent hazard	Possible hazard
IEC/CENELEC	Zone 0 Zone 20(DUST)	Zone 1 Zone 21(DUST)	Zone 2 Zone 22(DUST)
NEC505	Zone 0	Zone 1	Zone 2
USA	NEC500 CLASSI(GAS) CLASSII(DUST) CLASSIII(FIBERS)	DIVISION 1	DIVISION 2



The Temperature Classification

The temperature classification is based on the Maximum surface temperature of equipment.

The range of Maximum surface temperature per temperature class			
IEC/EN/NEC505		NEC500	
The range of Maximum surface temperature(°C)	Temperature class	The range of Maximum surface temperature(°C)	Temperature class
300°C - 450°C	T1	300°C - 450°C	T1
200°C - 300°C	T2	280°C - 300°C	T2
		260°C - 280°C	T2A
		230°C - 260°C	T2B
		215°C - 230°C	T2C
		200°C - 215°C	T2D
135°C - 200°C	T3	180°C - 200°C	T3
		165°C - 180°C	T3A
		160°C - 165°C	T3B
		135°C - 160°C	T3C
100°C - 135°C	T4	120°C - 135°C	T4
		100°C - 120°C	TA
85°C - 100°C	T5	85°C - 100°C	T5
Below 85°C	T6	Below 85°C	T6

Classification by Group According to NEC500

Classification of flammable material according to NEC500.

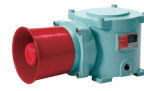
※ Please compare it with the "Classification by Explosion Protection Group" in the [Explosion Proof Technical Data].

CLASS/GROUP		GAS
CLASS 1	GROUP A	Acetylene or Equal
	GROUP B	Hydrogen, Butadiene, Ethylene oxide, Propylene oxide, Acrolein
	GROUP C	Ethyl ether, Ethylene, Acetaldehyde, Allyl alcohol, N-Butyraldehyde, Carbon monoxide, Crotonaldehyde, Cyclopropane, Diethyl ether, Diethylamine, Epichlorohydrin, Ethylene, Ethylenimine, Hydrogen Sulfide, Morpholine, 2-Nitropropane tetrahydrofuran, Isoprene or Unsymmetrical dimethylhydrazine(UDMH)
	GROUP D	Acetic acid(glacial), Acetone, Acrylonitrile, Ammonia, Benzene, Butane, 1-Butanol (Butyl alcohol), 2-Butanol(Secondary butyl alcohol), N-Butyl acetate, Isobutyl Acetate, Di-Isobutylene, Ethane, Ethanol(Ethyl alcohol), Ethyl acetate, Ethyl acrylate(Inhibited), Ethylenediamine(Anhydrous), Ethylene dichloride, Gasoline, Heptanes, Hexanes, Isoprene, Isopropyl, Ether, Mesityl oxide, Methane(Natural gas), Methanol (Methyl alcohol), 3-Methyl-1-Butanol(ISOAmyl alcohol), Methyl ethyl ketone, Methyl, Isobutyl ketone, 2-Methyl-1-Propanol(Isobutyl alcohol), 2-Methyl-2-Propanol (Tertiary butyl alcohol), Petroleum naphtha, Pyridine, Octanes, Pentanes, 1-Pentanol(Army alcohol), Propane, 1-Propanol(Propyl alcohol), 2-Propanol (Isopropyl alcohol), Propylene, Styrene, Toluene, Vinyl acetate, Vinyl chloride or Xylenes
CLASS 2	GROUP E	Metal dusts, Aluminum, Magnesium
	GROUP F	Coal, Coke, Carbon black, Charcoal dust
	GROUP G	GROUP E or F, Including flour, Starch, Grain, Wood, Plastic, Chemicals

Product Specification List for Explosion proof Signalings



Model number	ST45ML-Ex	QTEX	SSEL	QEAL1	QST50(B)-Ex	QST50(B)T-Ex
Voltage	DC12V DC24V	AC/DC12V, AC/DC24V AC95V-230V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V-240V	DC24V AC110V-230V	DC24V AC110V-230V
Outdia	Ø45	Ø144	154 x 154	Ø152(Cage)	Ø50	Ø50
Height	115-275	472(Self mount), 457(Wall mount)	100	238	430-486	488-544
Depth	-	155(Wall mount)	172(Length)	183(Length)	-	-
Materials	Lens-PC Housing-PC	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-PC, Light diffusion Lens-PC Housing-Al, Cover-Al	Lens-PC, Light diffusion Lens-PC Housing-Al, Cover-Al
Light source & Operation	LED Steady/ Flashing ●(steady)	●	●(steady)	●(steady)	●	●
1 Tone Buzzer					Max.90dB at 1m	Max.90dB at 1m
Mounting structure	Self mount	Self mount, Wall mount	Self mount	Self mount	Self mount	Self mount
Cable entry	-	3/4" NPT 2WAY	1/2" NPT	1/2" NPT	M16xP1.5	M20xP1.5, 1/2" NPT
Protection rating	IP54	IP66	IP66	IP66	IP66/IP67	IP66/IP67
Mounting location	Indoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Usage area	ZONE 2	ZONE 1, ZONE 2, ZONE 21	-	ZONE 1, ZONE 2	ZONE1,ZONE2, ZONE21, ZONE22	ZONE1,ZONE2, ZONE21, ZONE22
Certificates	KCs, NEPSI, CCC	IECEX, ATEX, KCs	KIMM	KCs, ICAO	IECEX, ATEX, KCs NEPSI, CCC	IECEX, ATEX, KCs NEPSI, CCC
Customization	-	Explosion proof cable gland, Cable entry 1/2"NPT, M20X1.5, M25X1.5, 1/2"PF	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	-	Explosion proof cable gland, Cable entry3/4"NPT
Transistor	NPN type/PNP type	PNP type	-	-	PNP type	PNP type
Page	P106-107	P110-113	P136	P137	P148-149	P150-151



Model number	STB45ML-Ex	STB45ML-NEC	QTEXB	SPNA	SBE130	SBE150
Voltage	DC12V DC24V	DC24V	AC/DC12V, AC/DC24V AC95V-230V	DC24V AC120V, AC230V	DC24V AC110V, AC220V	DC24V AC110V, AC220V
Outdia	Ø45	Ø60	Ø144	Ø134(Horn)	Ø120(Bell)	Ø150(Bell)
Height	149-309	270	472(Self mount), 457(Wall mount)	159	120	120
Depth	-	-	155(Wall mount)	327(Length)	138(Length)	138(Length)
Materials	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-Tempered glass Housing-Al	Horn-STS316L Housing-Al	Bell-Al Housing-Al	Bell-Al Housing-Al
Light source & Operation	LED Steady/ Flashing ●(Steady)	●(Steady)	●			
1 Tone Buzzer	Max.83dB at 1m	Max.83dB at 1m	Max.90dB at 1m	-	-	-
5 signal sounds	-	-	-	Max.118dB at 1m	-	-
Bell	-	-	-	-	Max.95dB at 1m	Max.95dB at 1m
Voice signal	-	-	-	110-115dB at 1m	-	-
Mounting structure	Self mount	Self mount	Self mount, Wall mount	Self mount	Self mount	Self mount
Cable entry	-	-	3/4" NPT 2WAY	1/2" NPT	1/2" NPT	1/2" NPT
Protection rating	IP54	IP54	IP66	IP66	IP56	IP56
Mounting location	Indoor Use	Indoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Usage area	ZONE 2	ZONE 2	ZONE 1, ZONE 2, ZONE 21	ZONE 1, ZONE 2	-	-
Certificates	KCs, NEPSI, CCC, CE	INTERTEK(NRTL), IECEX, CE	IECEX, ATEX, KCs, TIIS	IECEX, ATEX, NEPSI, CCS, KCs, CCC, TS	-	KIMM
Customization	-	-	Explosion proof cable gland, Cable entry 1/2"NPT, M20X1.5, M25X1.5, 1/2"PF	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5
Transistor	NPN type/PNP type	NPN type/PNP type	PNP type	NPN type	-	-
Page	P106-107	P108-109	P110-113	P138-139	P140	P140

Product Specification List for Explosion proof Signalings



Model number	QNE	QNE-CR	SNE	SE	SEA
Voltage	DC12V-24V AC110V-230V	DC12V-24V AC110V-230V	DC12V, DC24V AC120V, AC230V	DC12V, DC24V AC110V, AC220V	DC24V AC120V, AC230V
Dimension (mm)	Outdia	Ø98(Cage)	Ø98(Cage)	Ø152(Cage)	Ø167(Cage)
	Height	172	172	238	267
	Depth	131(Length)	131(Length)	183(Length)	172(Length)
Materials	Lens-Tempered glass Housing-Al, STS316L	Lens-Tempered glass Housing-Al, STS316L	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Brass	Lens-Tempered glass Housing-Al
Light source & Operation	Bulb Revolving		●	●	●
	LED Revolving		●		●
	LED Steady/ Flashing	●	●	●	●
	LED Strobe	●	●		
	LED Simulated revolving	●	●		
	Xenon Strobe		●	●	●
Mounting structure	Self mount	Self mount	Self mount	Self mount	Self mount
Cable entry	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Protection rating	IP66	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Usage area	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	-	ZONE 1, ZONE 2
Certificates	IECEX, ATEX, NEPSI, KCs, CCC	IECEX, ATEX	IECEX, ATEX, NEPSI, KCs, CCS, CCC(F), CCC, TIIS	KIMM	IECEX, ATEX, NEPSI, KCs, CCS, CCC, TS
Customization	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5
Page	P114-115	P116-117	P118-119	P128-129	P130-131



Model number	QNES	QNES-CR	QNEB	SNES	SESA	SEBA
Voltage	DC12V-24V AC110V-230V	DC12V-24V AC110V-230V	DC12V-24V AC110V-230V	DC12V, DC24V AC120V, AC230V	DC24V AC120V, AC230V	DC24V AC110V, AC220V
Dimension (mm)	Outdia	Ø98(Cage)	Ø98(Cage)	Ø152(Cage)	Ø167(Cage)	Ø167(Cage)
	Height	225	225	172	238	333
	Depth	130(Length)	130(Length)	171(Length)	183(Length)	240(Length)
Materials	Lens-Tempered glass Housing-Al, STS316L	Lens-Tempered glass Housing-Al, STS316L	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al
Light source & Operation	Bulb Revolving			●	●	●
	LED Revolving			●	●	●
	LED Steady/ Flashing	●	●	●	●	●
	LED Strobe	●	●	●		
	LED Simulated revolving	●	●	●		
	Xenon Strobe			●	●	●
Sound pattern/ dB	1 Tone Buzzer	-	-	Max.100dB at 1m	Max.105dB at 1m	-
	5 signal sounds	Max.110dB at 1m	Max.110dB at 1m	-	-	Max.118dB at 1m
	Bell	-	-	-	-	Max.95dB at 1m
	Voice signal	99-106dB at 1m	99-106dB at 1m	-	-	110-115dB at 1m
Mounting structure	Self mount	Self mount	Self mount	Self mount	Self mount	Self mount
Cable entry	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Protection rating	IP66	IP66	IP66	IP66	IP66	IP55
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use	Indoor/Outdoor Use
Usage area	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	-
Certificates	IECEX, ATEX, NEPSI, KCs, CCC	IECEX, ATEX	NEPSI, CCC	IECEX, ATEX, NEPSI, KCs, CCS, CCC(F), CCC, TIIS	IECEX, ATEX, NEPSI, TS, KCs, CCS, CCC, CCC(F)	KIMM
Customization	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5, 7 tone Buzzer	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5
Transistor	-	-	-	-	NPN type	-
Page	P120-121	P122-123	P124-125	P126-127	P132-133	P134-135

Product Specification List for Explosion proof Signalings



Model number	QNVS(-H)	QNHS(-H)	QN(-H)
Voltage	DC12V-24V AC110V-230V	DC12V-24V AC110V-230V	DC12V-24V AC110V-230V
Dimension (mm)	Outdia	Ø186	Ø186
	Height	268	268
	Length	370	295
Materials	Housing-AI, Horn housing-PC, Lens-Tempered glass, Filter-PC	Housing-AI, Horn housing-PC, Lens-Tempered glass, Filter-PC	Housing-AI, Horn housing-PC
Light source & Operation	LED Steady/Flashing	●	●
	LED Strobe	●	●
	LED Simulated revolving	●	●
Sound pattern/ dB	5 signal sounds	Max.123dB at 1m(QNVS-H) Max.118dB at 1m(QNVS)	Max.123dB at 1m(QNHS-H) Max.118dB at 1m(QNHS)
	Voice signal	115-120dB at 1m(QNVS-H) 110-115dB at 1m(QNVS)	115-120dB at 1m(QNHS-H) 110-115dB at 1m(QNHS)
Mounting structure	Wall mount	Wall mount	Wall mount
Cable entry	1/2" NPT	1/2" NPT	1/2" NPT
Protection rating	IP66	IP66	IP66
Mounting location	Indoor/Outdoor use	Indoor/Outdoor use	Indoor/Outdoor use
Usage area	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2
Certificates	IECEX,ATEX,KCs, NEPSI,CCC	IECEX,ATEX,KCs, NEPSI,CCC	IECEX,ATEX,KCs, NEPSI,CCC
Customization	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5
Page	P156-157	P156-157	P158



Model number	QMFL300-Ex-24
Voltage	DC24V
Power consumption	10W
Dimension (mm)	Length
	310
	Width
Height	62
	69
Materials	Housing-AI, Side Cover-AI, Lens-Tempered glass, Bracket-SPC-1
Lens Color	Translucent
Light color	Cool daylight
Efficacy (lm/W)	260Lux
Mounting structure	Mount bracket
Protection rating	IP67/IP69K
Mounting location	Indoor/Outdoor use
Usage area	ZONE 1, ZONE 2
Certificates	KCs, NEPSI
Customization	
Page	P141



Model number	QLEX-350	QLEX-NEC-250	QLEX-TRI-240(PL)	QLEX-SLM Series	QLEX-SLM-650-EMG
Voltage	DC24V	DC24V	DC24V	DC24V, AC220V	AC110V/230V
Power consumption	8.6W	8.6W	8.6W	8.6-23W	33W
Dimension (mm)	Length	350	250	244	250-650
	Width	110	105	52	105
	Height	93	78	70	65
Materials	Side Cover-AI Lens-PC, Side cover out-NBR, Bracket-AI	Side Cover-AI, Lens-PC, Bracket-AI	Side Cover-AI, Lens-PC, Bracket-AI	Side Cover-AI, Lens-PC, Bracket-AI	Housing-AI, Upper cover-AI, Side cover-AI, Lens-PC, Bracket-AI, STS
Lens Color	Transparent/Translucent	Translucent	Translucent	Translucent	Translucent
Light color	Cool daylight	Cool daylight	Cool daylight	Cool daylight	Cool daylight
Efficacy (lm/W)	230Lux	310Lux	310Lux	240-650Lux	700Lux
Mounting structure	Mount bracket	Mount bracket	Mount bracket	Mount bracket	Mount bracket
Protection rating	IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67	IP66
Mounting location	Indoor/Outdoor use	Indoor/Outdoor use	Indoor/Outdoor use	Indoor/Outdoor use	Indoor/Outdoor use
Usage area	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2
Certificates	KCs, NEPSI, CE	INTERTEK(NRTL), IECEX, CE	KCs, NEPSI	CE, KCs, NEPSI, S-Mark, ATEX, IECEX	KCs
Customization					
Page	P142	P143	P144-145	P146-147	P155

Non Sparking Explosion Proof LED Tower Lights

ST45ML-Ex



Non-sparking explosion proof LED tower lights suitable for use in zone 2 hazardous areas



ST45ML-Ex

PRODUCT SPECIFICATION

ST45ML-Ex | STB45ML-Ex

Materials

Lens-PC, Housing-PC, Mounting housing-Al, Cover-PC/Al

Ambient operating temperature $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$

Protection rating IP54

Explosion protection rating

KCs- Ex nR II T6 IP54 (Layer2-3)

NEPSI, CCC -Ex nR IIC T6 Gc (Layer1-5)

KCs - Ex nR II T4 IP54 (Customization, Layer1-5)

- Non- sparking explosion protected high-intensity LED steady tower lights
 - Excellent distance visibility by using a special reflector to arrogate the light from the LED filament
 - Reduced maintenance with use of long-lasting LED light source
 - Lens and housing are made of polycarbonate with excellent durability, suitable for potentially hazardous and explosive environments
 - Can be used for Zone 2 application with explosion proof rating of nR
- ※ Zone2 : Equipment is capable of operating under abnormal high risk environmental conditions for a short duration



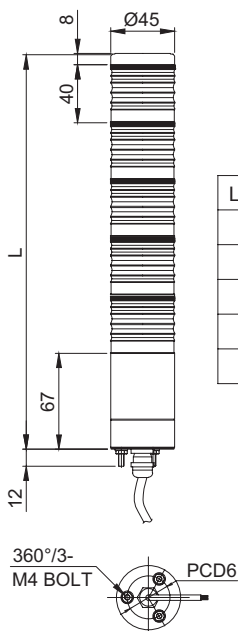
ST45ML-Ex Non-Sparking Explosion Proof LED Tower Light

Model number	Layer	Voltage	Certificates	Weight	Color
ST45ML-Ex ST45ML	1	DC12V		0.19kg	● R-Red
		DC24V		0.19kg	
	2	DC12V		0.24kg	● R-Red
		DC24V		0.24kg	● G-Green
	3	DC12V		0.29kg	● R-Red
		DC24V		0.29kg	● A-Amber ● G-Green
	4	DC12V		0.32kg	● R-Red ● A-Amber ● G-Green
		DC24V		0.32kg	● B-Blue
	5	DC12V		0.36kg	● R-Red ● A-Amber ● G-Green
		DC24V		0.36kg	● B-Blue ○ W-White

Technical Diagram

Units: mm

• ST45ML-Ex



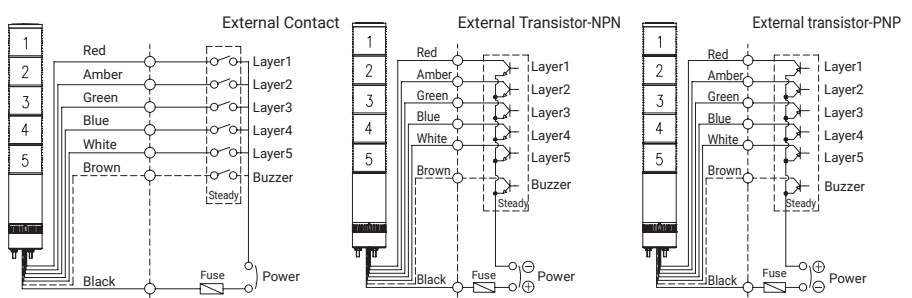
LAYER	L
1	115
2	155
3	195
4	235
5	275

Light source current(based on 1 layer)

Voltage	DC12V	DC24V
Light source current(1 layer)	24mA	12mA

Wiring Instructions

• ST45ML-Ex-DC / STB45ML-Ex-DC



Built-in Buzzer Non-Sparking Explosion Proof Tower Lights

STB45ML-Ex



Non-sparking explosion proof LED tower lights suitable for use in zone 2 hazardous areas

STB45ML-Ex Built-in Buzzer Non-Sparking Explosion Proof Tower Lights

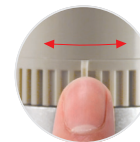
Model number	Layer	Voltage	Certificates	Weight	Color
STB45ML-Ex STB45ML	1	DC12V	CCC	0.26kg	● R-Red
		DC24V	EA NEPSI	0.26kg	
	2	DC12V	CCs	0.30kg	● R-Red
		DC24V	CCC	0.30kg	● G-Green
	3	DC12V	EA NEPSI	0.34kg	● R-Red
		DC24V	CE	0.34kg	● A-Amber ● G-Green
	4	DC12V		0.38kg	● R-Red ● A-Amber ● G-Green
		DC24V	CCC	0.38kg	● B-Blue
	5	DC12V	EA NEPSI	0.42kg	● R-Red ● A-Amber ● G-Green
		DC24V		0.42kg	● B-Blue ○ W-White

· Sound volume adjustable by volume control lever, Sound volume: Max.83dB at 1m

※ CE compliant: DC24V



STB45ML-Ex



Sound volume adjustable by volume control lever

Light source/buzzer current(based on 1 layer)

Voltage	DC12V	DC24V
Light source current(1 layer)	20mA	10mA
Buzzer current	20mA	30mA

Ordering Specification

· KCs Certificates - Ex nR II T6

STB45ML3	-	Ex	-	12	-	R	-	KCs
[Model number]		[Explosion Proof]		[Voltage]		[Color]		[Certificates]
ST45ML2(2 layers)				12-DC12V		● R-Red		KCs
STB45ML2(2 layers)				24-DC24V		● G-Green		
ST45ML3(3 layers)						● R-Red		
STB45ML3(3 layers)						● A-Amber		
						● G-Green		

· CCC Certificates - Ex nR IIC T6 Gc

STB45ML	-	3	-	12	-	R	-	CCC/NEPSI
[Model number]		[Layer]		[Voltage]		[Color]		[Certificates]
ST45ML		1-1Layer		12-DC12V		● R-Red		CCC(NEPSI)
STB45ML		2-2Layers		24-DC24V		● A-Amber		
		3-3Layers				● G-Green		
		4-4Layers				● B-Blue		
		5-5Layers				○ W-White		

Technical Diagram

Units: mm

· STB45ML-Ex



LAYER	L
1	149
2	189
3	229
4	269
5	309

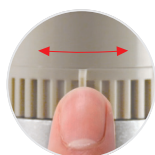
Cautions in use of explosion proof tower lights

· Contact structure of an explosion proof product must be a qualified part we provide, please do not disassemble, assemble, modify or repair arbitrarily.

STB45ML-NEC



STB45ML-NEC



Sound volume adjustable by volume control lever

PRODUCT SPECIFICATION

STB45ML-NEC

Materials

Lens-PC, Housing-PC, Mounting housing-Al, Upper cover-Al

Ambient operating temperature $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$

Sound volume Max.83dB at 1m

Protection rating IP54

Explosion protection rating




Class I, Division 2 Groups A,B,C,D T6

Class I, Zone 2, AEX ec IIC T6 Gc

Certificates INTERTEK(NRTL), IECEx, CE

- High brightness LED steady type with NRTL certified Increased safety explosion Proof LED tower lights
- NRTL(Nationally Recognized Testing Laboratory) is a system for product safety testing and certification, this product can be installed and used not only in the United States but also in Canada.
- Excellent distance visibility by using a special reflector to arrogate the light from the LED filament
- Reduced maintenance cost with use of long-lasting LED light source
- Lens and housing are made of polycarbonate with excellent durability, suitable for potentially hazardous and explosive environments

STB45ML-NEC Built-in Buzzer Increased Safety Explosion Proof LED Tower Lights

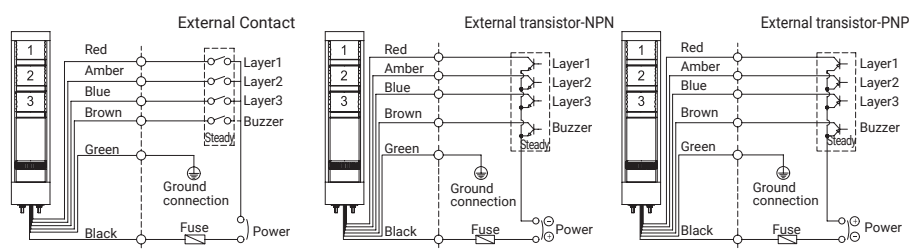
Model number	Layer	Voltage	Certificates	Weight	Color
STB45ML-NEC	3	DC24V	  	0.40kg	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ● R-Red </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ● A-Amber </div> <div style="display: flex; align-items: center;"> ● G-Green </div> </div>

Light source/buzzer current(based on 1 layer)

Voltage	DC24V
Light source current(1 layer)	12mA
Buzzer current	40mA

Wiring Instructions

• STB45ML-NEC-DC

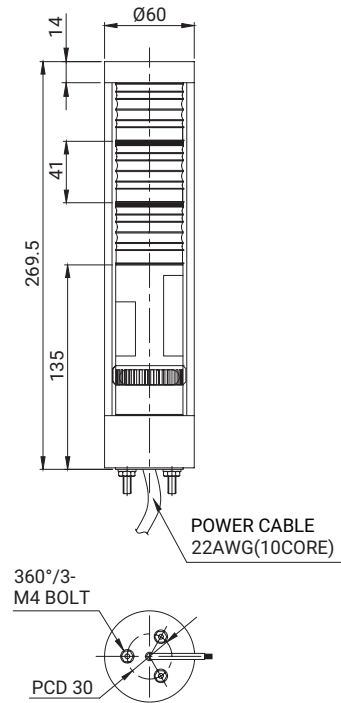




Technical Diagram

Units: mm

·STB45ML-NEC



Ordering Specification

STB45ML-NEC	-	3	-	24	-	R	-	IECEX
[Model number]		[Layer]		[Voltage]		[Color]		[Certificates]
STB45ML-NEC		3-3Layers		24-DC24V		<div>● R-Red</div> <div>● A-Amber</div> <div>● G-Green</div>		INTERTEK(NRTL) IECEX

Cautions in use of explosion proof tower lights

- Contact structure of an explosion proof product must be a qualified part we provide, please do not disassemble, assemble, modify or repair arbitrarily.

QTEX Series

Explosion proof LED tower lights with flame proof housing



QTEX Self mount



QTEX Wall mount

PRODUCT SPECIFICATION

QTEX | QTEXB

Materials

Lens-Tempered glass, Filter Lens-AS, Housing-Al,
Reflector-Heat resistant ABS

Ambient operating temperature $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$

Sound volume Max.90dB at 1m(QTEXB)

Explosion protection rating

IECEX - Ex db II C T6 Gb, IP66

Ex tb IIIC T85°C Db, IP66

ATEX - EX II 2G Ex db II C T6 Gb, IP66

EX II 2D Ex tb IIIC T85°C Db, IP66




KCs - Ex d II C T6, IP66

Certificates IECEX, ATEX, KCs, TIIS(QTEXB only)

Cable entry 3/4" NPT 2WAY

- Explosion proof LED tower lights with Ex d IIC rating can be used in explosive gas environments
- Excellent distance visibility by using a special reflector to aggregate the light from the LED filament
- Ø80 LED tower light mounted inside the flame proof housing
- Aluminum housing provides excellent durability
- Long-lasting high intensity LED light source
- Terminal box located inside the housing for easy power wiring
- Direct mount type and wall mount type available depending on application needs.

QTEX Explosion Proof LED Tower Lights with Flame Proof Housing

Model number	Layer	Voltage	Certificates	Weight	Color
QTEX (Steady/Flashing)	1	DC12V	  	4.01kg	● R-Red
		DC24V		4.01kg	
		AC95V-230V		4.02kg	
	2	DC12V		4.15kg	● R-Red ● A-Amber ● G-Green
		DC24V		4.15kg	
		AC95V-230V		4.16kg	
	3	DC12V		4.31kg	● R-Red ● A-Amber ● G-Green
		DC24V		4.31kg	
		AC95V-230V		4.32kg	
	4	DC12V		4.46kg	● R-Red ● A-Amber ● G-Green ● B-Blue
		DC24V		4.46kg	
		AC95V-230V		4.47kg	
	5	DC12V		4.61kg	● R-Red ● A-Amber ● G-Green ● B-Blue ○ W-White
		DC24V		4.61kg	
		AC95V-230V		4.62kg	

Light source current(based on 1 layer)

Voltage	DC12V	DC24V	AC95V-230V
Light source current(1 layer)	80mA	60mA	Max.55mA



QTEXB Built-in Siren Buzzer Type Explosion Proof LED Tower Lights with Flame Proof Housing

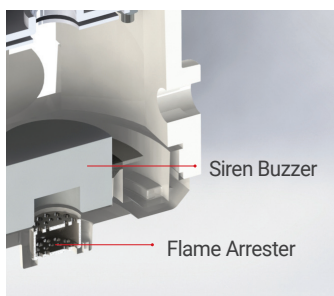
Model number	Layer	Voltage	Certificates	Weight	Color
QTEXB (Steady/Flashing)	1	DC12V	 	4.11kg	● R-Red
		DC24V		4.11kg	
		AC95V-230V		4.12kg	
	2	DC12V		4.25kg	● R-Red
		DC24V		4.25kg	● A-Amber
		AC95V-230V		4.26kg	● G-Green
	3	DC12V		4.41kg	● R-Red
		DC24V		4.41kg	● A-Amber
		AC95V-230V		4.42kg	● G-Green
	4	DC12V		4.56kg	● R-Red
		DC24V		4.56kg	● A-Amber
		AC95V-230V		4.57kg	● B-Blue
	5	DC12V		4.71kg	● R-Red
		DC24V		4.71kg	● A-Amber
		AC95V-230V		4.72kg	● G-Green ● B-Blue ○ W-White

- Explosion proof LED tower lights with visual & audible signal that can be used in hazardous environments
- Sound tone & volume: Siren buzzer, Max.90dB at 1m

Light source/buzzer current(based on 1 layer)

Voltage	DC12V	DC24V	AC95V-230V
Light source current(1 layer)	80mA	60mA	Max.55mA
Buzzer current	60mA	120mA	Max.80mA

Explosion proof structure for buzzer model



· FLAME ARRESTER

A flame arrester(also called a deflagration arrester) functions by absorbing the heat from a flame front traveling at sub-sonic velocities, thus dropping the burning gas/air mixture below its auto-ignition temperature: consequently, the flame cannot survive. The heat is absorbed through channels (passages) designed into an element.



QTEXB Self mount



QTEXB Wall mount

Ordering Specification

QTEX	3	12	RAG	IECEx
[Model number]	[Layer]	[Voltage]	[Color]	[Certificates]
QTEX	1-1Layer	12-DC12V	● R-Red	IECEx
QTEXB	2-2Layers	24-DC24V	● A-Amber	ATEX
	3-3Layers	95/230-AC95V-230V	● G-Green	KCs
	4-4Layers		● B-Blue	TIIS(QTEXB only)
	5-5Layers		○ W-White	

Customization

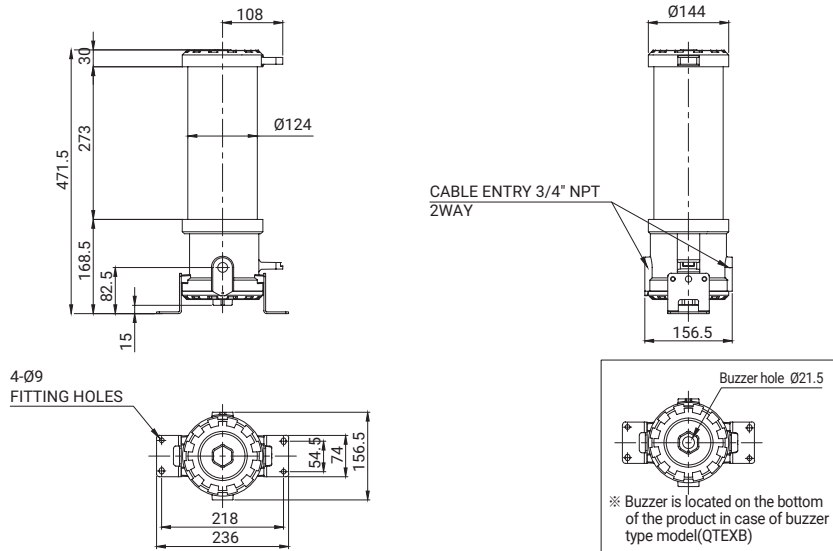
- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- Cable entry 1/2"NPT, M20X1.5, M25X1.5, 1/2"PF(KCs only), 3/4"PF(KCs only)

QTEX Series

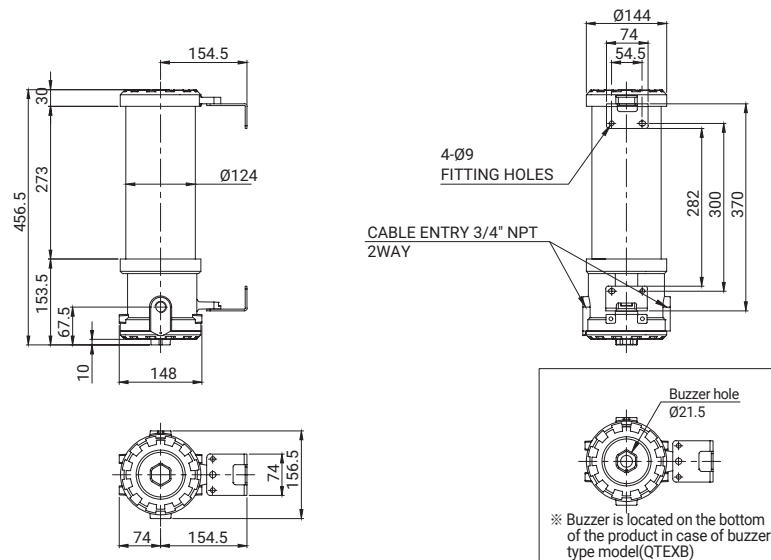
Technical Diagram

Units: mm

· QTEX / QTEXB-Self mount



· QTEX / QTEXB-Wall mount



Cautions in using explosion proof tower lights

- Explosion proof products should be maintained by explosion proof regulation, please do not disassemble, assemble, modify or repair arbitrarily. In case disassembly is required for wiring or repair, structures such as the contact parts should maintain the same initial condition that we provided.
- Cable gland must be used in explosion proof certified products which satisfy the T6 temperature rating and IP66 protection rating.

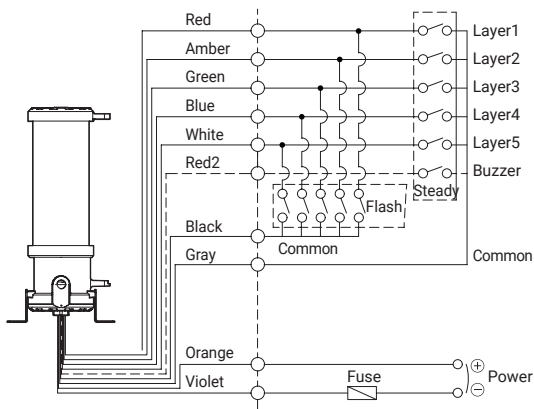
Wiring Instructions

- QTEX / QTEXB wiring with transistors and External Contacts.
- In case of wiring with transistors, please use PNP transistors and wiring exactly following below technical diagram.

External Contacts type

QTEX-DC/AC
QTEXB-DC/AC

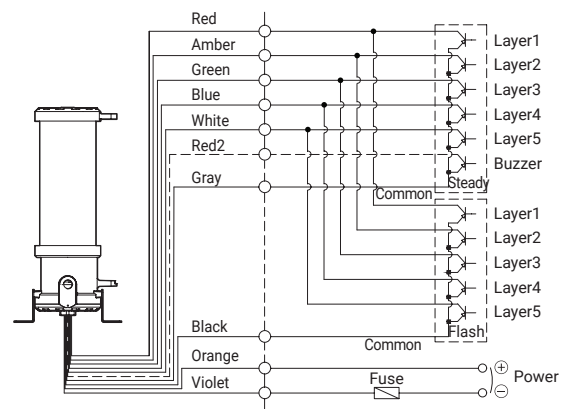
External Contact



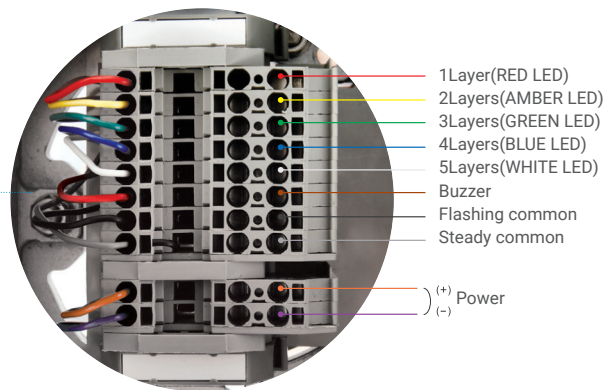
Transistor type

QTEX-DC/AC
QTEXB-DC/AC

External transistor-PNP



Terminal Wiring Information



QTEX series consists of a blocked terminal which is convenient for internal wiring of the terminal box. Please refer to technical diagram for detailed Wiring Instructions.

QNE Series

Flame proof LED signal light that features steady/flashing, strobe, and simulated revolving light functions in one unit



QNE



QNE-SUS

PRODUCT SPECIFICATION

QNE | QNE-SUS

Materials Lens-Tempered glass, Filter-PC, Bracket-STS316L, Protection cage-STS316, Housing-Al(QNE), STS316L(QNE-SUS)

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C(T5)

-40°C ≤ Tamb ≤ +50°C(T6)

Explosion protection rating

IECEX - Ex db IIC T6/T5 Gb, IP66

ATEX - II 2G Ex db IIC T6/T5 Gb, IP66

NEPSI, CCC - Ex db IIC T5/T6 Gb

KCs - Ex d IIC T6/T5, IP66

Certificates IECEX, ATEX, NEPSI, KCs, CCC

Housing standard color Red, MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

Flashing rate(LF type) 60-80 flashes/min.

Strobe rate(LS type) 70-80 flashes/min.

Simulated revolving rate(LR type) 120-140RPM

- Explosion proof, multifunctional, and compact LED signal light designed for use in explosive gas environments with Ex d C rating
- Features excellent shock and vibration resistance, maintenance significantly reduced with long-lasting LED light source
- Features superior durability with aluminum housing(QNE)
- STS housing provides superior durability and corrosion resistance(QNE-SUS)
- Fully enclosed structure with protection rating of IP66

QNE Explosion Proof Signal Beacon

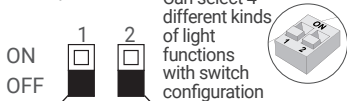
Model number	Voltage	Current	Certificates	Weight	Color
QNE	DC12V-24V	Max.350mA	IECEX ATEX	2.05kg	R-Red A-Amber G-Green B-Blue
	AC110V-230V	Max.110mA	NEPSI KCs CCC		

QNE-SUS Explosion Proof Signal Beacon

Model number	Voltage	Current	Certificates	Weight	Color
QNE-SUS	DC12V-24V	Max.350mA	IECEX ATEX	4.65kg	R-Red A-Amber G-Green B-Blue
	AC110V-230V	Max.110mA	NEPSI KCs CCC		

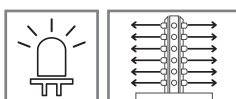
Instruction for Light Function Switch

ON=1/OFF=0



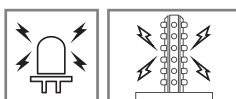
No.	1	2	Operation
0	0	0	LED Steady
1	0	1	LED Flashing
2	1	0	LED Strobe
3	1	1	LED Simulated revolving flashing

Operation



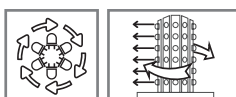
• LED Steady/Flashing

Repeat operation of LED light on/off



• LED Strobe

Short LED steady/flashing. Creates a xenon flashing effect by providing maximum electric current



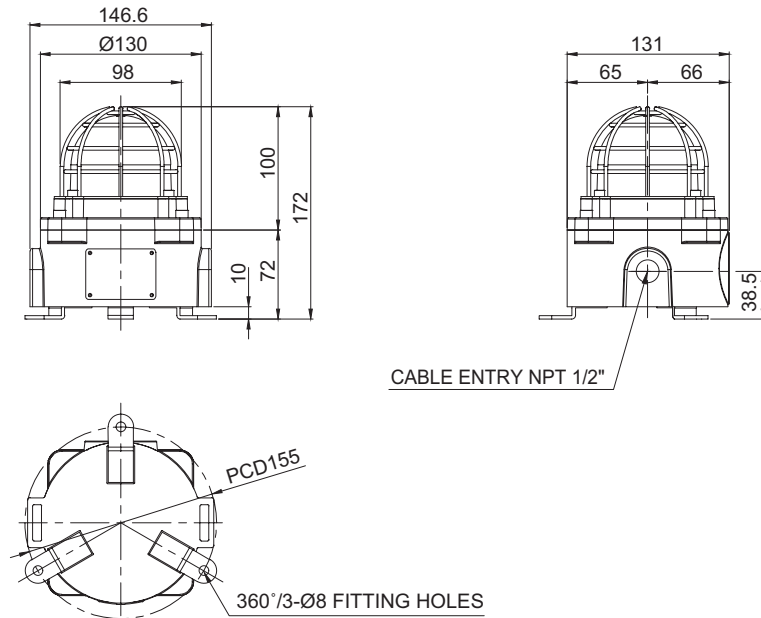
• LED Simulated Revolving Flashing

LED flashes steadily around the cylindrical LED filaments which makes a simulated revolving effect

Technical Diagram

Units: mm

·QNE / QNE-SUS



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- M20x1.5 cable entry

Ordering Specification

QNE	-	110/230	-	R	-	SUS	-	IECEX
[Model number]		[Voltage]		[Color]		[Housing materials]		[Certificates]
QNE		12/24-DC12V-24V 110/230-AC110V-230V		<div>R-Red</div> <div>A-Amber</div> <div>G-Green</div> <div>B-Blue</div>		None - Al SUS-ST316L		IECEX ATEX KCs CCC(NEPSI)

QNE-CR Series

Flame proof LED signal light that features steady/flashing, strobe, and simulated revolving light functions in one unit



QNE-CR



QNE-CR-SUS

PRODUCT SPECIFICATION

QNE-CR | QNE-CR-SUS

Materials Lens-Tempered glass, Filter-PC, Bracket-ST316L, Protection cage-ST316L, Housing-Al(QNE-CR), ST316L(QNE-CR-SUS)

Ambient operating temperature

-52°C ≤ Tamb ≤ +60°C (T5)

-52°C ≤ Tamb ≤ +50°C (T6)

Explosion protection rating

IECEX - Ex db IIC T6/T5 Gb, IP66

ATEX - II 2G Ex db IIC T6/T5 Gb, IP66

Certificates ATEX, IECEX

Housing standard color Red, MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

Flashing rate(LF type) 60-80 flashes/min.

Strobe rate(LS type) 70-80 flashes/min.

Simulated revolving rate(LR type) 120-140RPM

- Small explosion proof ATEX/IECEX certified LED signal beacon
- Multiple lighting effects such as LED steady/flashing, strobe, and simulated revolving
- ATEX/IECEX ex-proof beacon sounder combination unit that can be used in an environment of extremely low temperature as low as -52°C(-61.6°F)
- Cold resistant parts realizes stable operation of beacon at very low temperature
- Features excellent shock and vibration resistance, maintenance significantly reduced with long-lasting LED light source
- Features superior durability with aluminum housing(QNE-CR)
- STS housing provides superior durability and corrosion resistance(QNE-CR-SUS)
- Fully enclosed structure with protection rating of IP66

QNE-CR Small sized exproof LED Beacon with Cold resistance

Model number	Voltage	Current	Certificates	Weight	Color
QNE-CR	DC12V-24V	Max.350mA	IECEX	2.05kg	● R-Red
	AC110V-230V	Max.110mA	ATEX		● A-Amber ● G-Green ● B-Blue

QNE-CR-SUS Small sized exproof LED Beacon with Cold resistance

Model number	Voltage	Current	Certificates	Weight	Color
QNE-CR-SUS	DC12V-24V	Max.350mA	IECEX	4.65kg	● R-Red
	AC110V-230V	Max.110mA	ATEX		● A-Amber ● G-Green ● B-Blue

Instruction for Light Function Switch

ON=1/OFF=0

ON

OFF

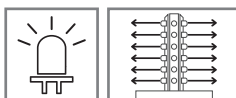


Can select 4 different kinds of light functions with switch configuration



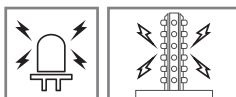
No.	1	2	Operation
0	0	0	LED Steady
1	0	1	LED Flashing
2	1	0	LED Strobe
3	1	1	LED Simulated revolving flashing

Operation



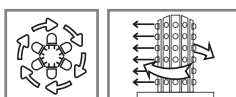
• LED Steady/Flashing

Repeat operation of LED light on/off



• LED Strobe

Short LED steady/flashing. Creates a xenon flashing effect by providing maximum electric current



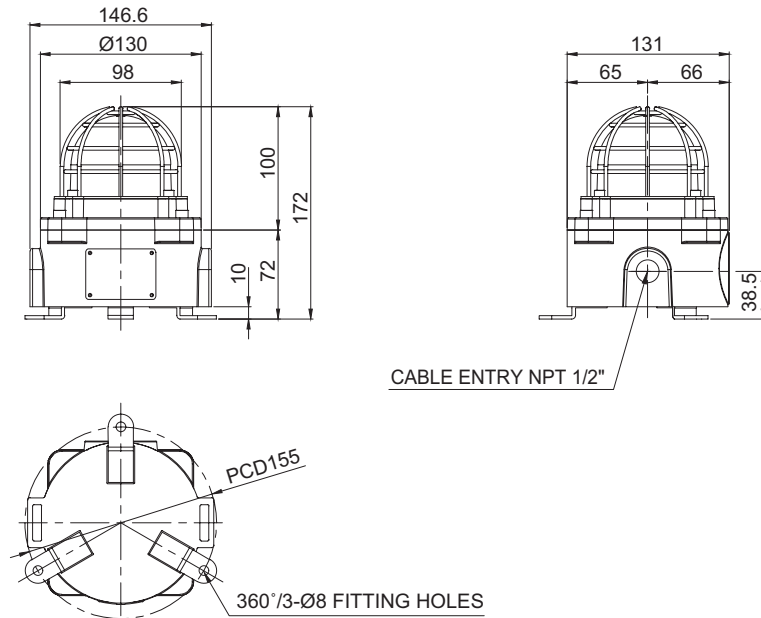
• LED Simulated Revolving Flashing

LED flashes steadily around the cylindrical LED filaments which makes a simulated revolving effect

Technical Diagram

Units: mm

·QNE-CR / QNE-CR-SUS



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- M20x1.5 cable entry

Ordering Specification

QNE-CR	-	110/230	-	R	-	SUS	-	IECEX
[Model number]		[Voltage]		[Color]		[Housing materials]		[Certificates]
QNE-CR		12/24-DC12V-24V 110/230-AC110V-230V		<div></div> R-Red <div></div> A-Amber <div></div> G-Green <div></div> B-Blue		None - Al SUS - STS316L		IECEX ATEX

SNE Series



SNELR



SNEL

PRODUCT SPECIFICATION

SNELR | SNEL
SNE-S | SNE

Materials Lens-Tempered glass, Filter-PC, Housing-Al, Protection cage-STS316L, Reflector-PC, Reflector-Heat resistant ABS. Bracket-STS316L

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

-40°C ≤ Tamb ≤ +55°C(KCs)


-20°C ≤ Tamb ≤ +55°C(TIIS)

Explosion protection rating

IECEX - Ex db IIC T6 Gb, Ex db op is IIC T6 Gb(with LED)

TIIS - Ex d IIC T6 Gb, IP66

ATEX -  II2G Ex db IIC T6 Gb

 II2G Ex db op is IIC T6 Gb(with LED)

NEPSI, CCC - Ex db IIC T6 Gb, IP66

KCs - Ex d IIC T6 IP66

Certificates

IECEX, ATEX, NEPSI, KCs, CCS, CCC(F), TIIS, CCC










Cable entry 1/2" NPT

Housing standard color MUNSELL No. 7.5BG 7/2

- Light weight and compact explosion proof signal beacon/light
- A variety of light source selections from bulb, LED, and xenon lamp
- Aluminum housing provides excellent durability
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model











※ Usable voltage AC120V: AC110V-120V, AC230V: AC220V-230V

SNELR LED Revolving Signal Beacon

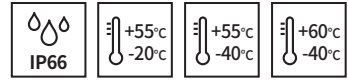
Model number	Voltage	Current	Certificates	Weight	Color
SNELR	DC12V	170mA	    	3.15kg	 R-Red  A-Amber  G-Green  B-Blue
	DC24V	120mA		3.15kg	
	AC120V	30mA		3.85kg	
	AC230V	20mA		3.85kg	

- Features high visibility in all directions with special concentrated LED light structure and multi side reflector
- Revolving speed: 120-140RPM

SNEL LED Steady/Flashing Signal Beacon

Model number	Voltage	Current	Certificates	Weight	Color
SNEL	DC12V-24V	Max.90mA	     	3.65kg	 R-Red  A-Amber  G-Green  B-Blue
	AC120V	30mA		4.30kg	
	AC230V	20mA		4.30kg	

- Long-lasting high intensity LED light source, Suitable for applications where bulb replacement is hard
- Built-in steady/flashing selection switch
- Flashing rate: 60-80 flashes/min



SNE-S Xenon Lamp Strobe Signal Beacon

Model number	Voltage	Current	Xenon Lamp			Certificates	Weight	Color
			Spec	Standard	Parts no			
SNE-S	DC12V-24V	Max.390mA		BGA2120	47		3.60kg	● R-Red
	AC120V	100mA	200V -350V	-BBC			4.25kg	● A-Amber
	AC230V	60mA		I type			4.25kg	● G-Green ● B-Blue

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong flashing signal diffusion
- Flashing rate: 60-80 flashes/min



SNE-S

SNE Bulb Revolving Signal Beacon

Model number	Voltage	Current	Bulb			Certificates	Weight	Color
			Spec	Standard	Parts no			
SNE	DC12V	1.3A	12V15W	G23 15S	17		3.25kg	● R-Red
	DC24V	690mA	24V15W	G23 15S	18		3.25kg	● A-Amber
	AC120V	160mA	12V15W	G23 15S	17		3.95kg	● G-Green
	AC230V	90mA	12V15W	G23 15S	17		3.95kg	● B-Blue

- Excellent signal light diffusion effect with multi-faced reflector
- Revolving speed: 120-140RPM

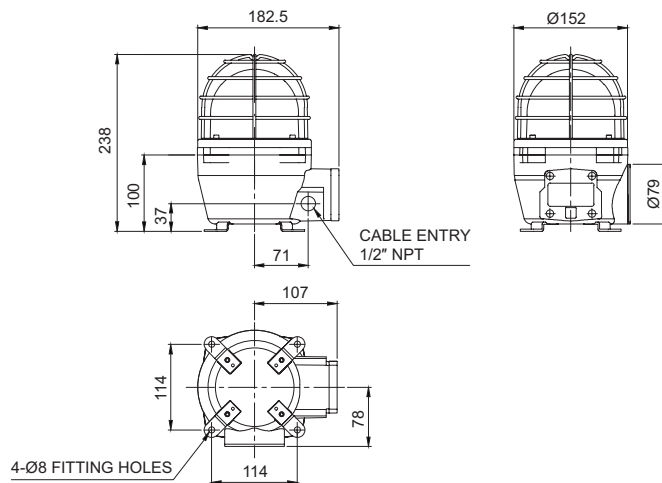


SNE

Technical Diagram

Units: mm

· SNELR / SNEL / SNE-S / SNE



Ordering Specification

SNE	-	230	-	R	-	IECEx
[Model number]		[Voltage]		[Color]		[Certificates]
SNELR		12-DC12V		● R-Red		IECEx
SNEL		24-DC24V		● A-Amber		ATEX
SNE-S		12/24-DC12V-24V(SNEL, SNE-S only)		● G-Green		KCs
SNE		120-AC120V		● B-Blue		TIIS
		230-AC230V				CCC(NEPSI)

Customization

- Explosion proof cable gland attached type available(Standard type does not provide explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (M20×1.5) available
- 48VDC voltageproduct (excluding KCS, TIIS)

QNES Series

Explosion proof LED signal beacon & electronic sounder with convenient selection of steady/flashing, strobe, and simulated revolving light functions



QNES



QNES-SUS

PRODUCT SPECIFICATION

QNES | QNES-SUS

Materials Lens-Tempered glass, Filter-PC, Bracket-ST316L, Protection cage-ST316L, Housing-Al(QNES), ST316L(QNES-SUS)

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C(T5)

-40°C ≤ Tamb ≤ +45°C(T6)

Explosion protection rating

IECEX - Ex db IIC T6/T5 Gb, IP66

ATEX - Ex II 2G Ex db IIC T6/T5 Gb, IP66

NEPSI, CCC - Ex db IIC T5/T6 Gb

KCs - Ex d IIC T6/T5, IP66

Certificates IECEX, ATEX, NEPSI, KCs, CCC

Housing standard color Red, MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

Flashing rate(LF type) 60-80 flashes/min.

Strobe rate(LS type) 70-80 flashes/min.

Simulated revolving rate(LR type) 120-140RPM

- Explosion proof, multifunctional, and compact LED signal light designed for use in explosive gas environments with Ex d II C rating
- Explosion proof, multifunctional, and compact LED signal light designed for use in explosive gas environments with Ex d II C rating
- Features excellent shock and vibration resistance, maintenance significantly reduced with long-lasting LED light source
- A variety of sound selections between warning sounds, alarm sounds, melodies and voice messages to fit your sophisticated application needs
- Features superior durability with aluminum housing(QNES)
- STS housing provides superior durability and corrosion resistance(QNES-SUS)
- Fully enclosed structure with protection rating of IP66

QNES Explosion Proof Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QNES	DC12V	Max.	·WS-5 Warning sounds: Max.110dB		3.15kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	-24V	1.6A	·WP-5 Special warning sounds: Max.110dB			
	AC110V	Max.	·WM-5 Melodies: Max.105dB			
	-230V	300mA	·WA-5 Alarms: Max.105dB ·WV-5 Customizable voices: 99-106dB			

QNES-SUS Explosion Proof Signal Beacon and Electronic Sounder Combination

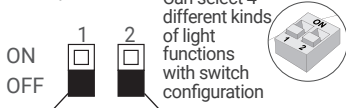
Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QNES-SUS	DC12V	Max.	·WS-5 Warning sounds: Max.110dB		7.60kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	-24V	1.6A	·WP-5 Special warning sounds: Max.110dB			
	AC110V	Max.	·WM-5 Melodies: Max.105dB			
	-230V	300mA	·WA-5 Alarms: Max.105dB ·WV-5 Customizable voices: 99-106dB			

※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

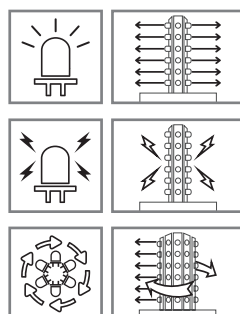
Instruction for Light Function Switch

ON=1/OFF=0



No.	1	2	Operation
0	0	0	LED Steady
1	0	1	LED Flashing
2	1	0	LED Strobe
3	1	1	LED Simulated revolving flashing

Operation



• LED Steady/Flashing

Repeat operation of LED light on/off

• LED Strobe

Short LED steady/flashing. Creates a xenon flashing effect by providing maximum electric current

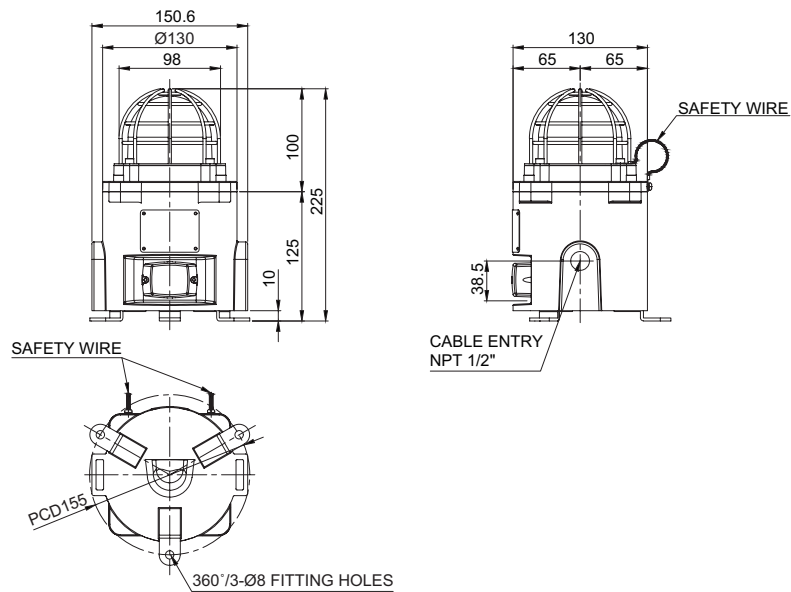
• LED Simulated Revolving Flashing

LED flashes steadily around the cylindrical LED filaments which makes a simulated revolving effect

Technical Diagram

Units: mm

·QNES / QNES-SUS



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- M20x1.5 cable entry

Ordering Specification

QNES	-	WA	-	110/230	-	R	-	SUS	-	IECEX
[Model number]		[Sound]		[Voltage]		[Color]		[Housing materials]		[Certificates]
QNES		WS-Warning sounds WP-Special warning sounds WM-Melodies WA-Alarms WV-Customizable voices		12/24-DC12V-24V 110/230-AC110V-230V		<div>● R-Red</div> <div>● A-Amber</div> <div>● G-Green</div> <div>● B-Blue</div>		None - AI SUS-ST316L		IECEX ATEX KCs CCC(NEPSI)

QNES-CR Series

Explosion proof LED signal Beacon & electronic sounder with convenient selection of steady/flashing, strobe, and simulated revolving light functions



QNES-CR



QNES-CR-SUS

PRODUCT SPECIFICATION

QNES-CR | QNES-CR-ST5

Materials Lens-Tempered glass, Filter-PC, Bracket-ST5316L, Protection cage-ST5316, Housing-Al(QNES-CR), ST5316L(QNES-CR-SUS)

Ambient operating temperature

-52°C ≤ Tamb ≤ +60°C(T5)

-52°C ≤ Tamb ≤ +45°C(T6)

Explosion protection rating

IECEX - Ex db IIC T6/T5 Gb, IP66

ATEX - II 2G Ex db IIC T6/T5 Gb, IP66

Certificates IECEX, ATEX

Housing standard color Red, MUNSSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

Flashing rate(LF type) 60-80 flashes/min.

Strobe rate(LS type) 70-80 flashes/min.

Simulated revolving rate(LR type) 120-140RPM

- Explosion proof, multifunctional, and compact LED signal light designed for use in explosive gas environments with Ex d II C rating
- ATEX/IECEX exproof Beacon sounder combination unit that can be used in an environment of extremely low temperature as low as -52°C(-61.6°F)
- Cold resistant parts realize stable operation of beacon at very low temperature
- Model with complex functions of LED on, blinking, strobe, and rotating flashing
- Features excellent shock and vibration resistance, maintenance significantly reduced with long-lasting LED light source
- A variety of sound selections between warning sounds, alarm sounds, melodies and voice messages to fit your sophisticated application needs
- Features superior durability with aluminum housing(QNES-CR)
- ST5 housing provides superior durability and corrosion resistance(QNES-SUS)
- Fully enclosed structure with protection rating of IP66

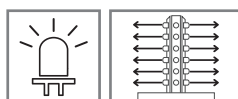
Instruction for Light Function Switch

ON=1/OFF=0

Can select 4 different kinds of light functions with switch configuration

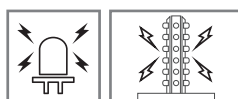
No.	1	2	Operation
0	0	0	LED Steady
1	0	1	LED Flashing
2	1	0	LED Strobe
3	1	1	LED Simulated revolving flashing

Operation



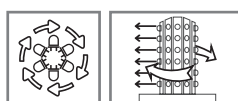
• **LED Steady/Flashing**

Repeat operation of LED light on/off



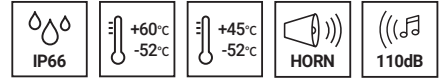
• **LED Strobe**

Short LED steady/flashing. Creates a xenon flashing effect by providing maximum electric current



• **LED Simulated Revolving Flashing**

LED flashes steadily around the cylindrical LED filaments which makes a simulated revolving effect



QNES-CR Explosion Proof LED Beacon & Sounder Combination with Cold Resistance

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QNES-CR	DC12V-24V	Max.1.6A	·WS-5 Warning sounds: Max.110dB ·WP-5 Special warning sounds: Max.110dB ·WM-5 Melodies: Max.105dB ·WA-5 Alarms: Max.105dB ·WV-5 Customizable voices: 99-106dB		3.15kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	AC110V-230V	Max.300mA				

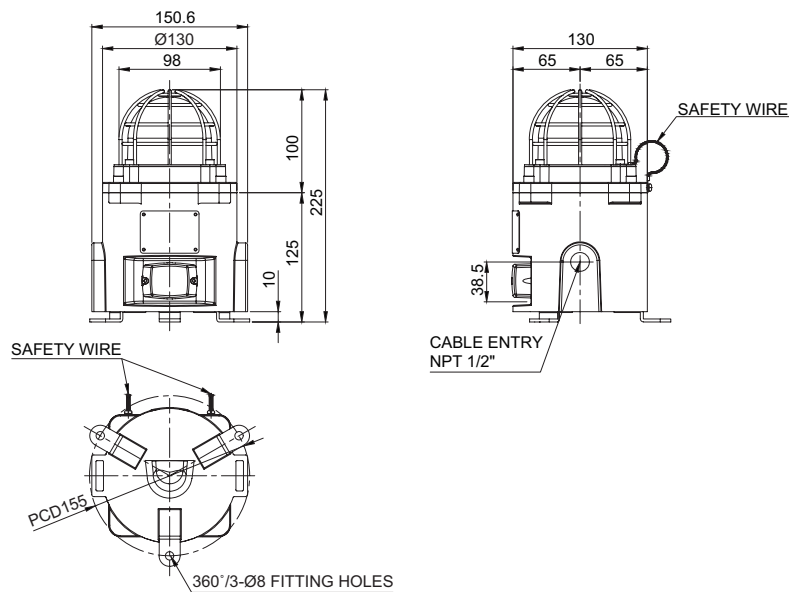
QNES-CR-SUS Explosion Proof LED Beacon & Sounder Combination with Cold Resistance

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QNES-CR-SUS	DC12V-24V	Max.1.6A	·WS-5 Warning sounds: Max.110dB ·WP-5 Special warning sounds: Max.110dB ·WM-5 Melodies: Max.105dB ·WA-5 Alarms: Max.105dB ·WV-5 Customizable voices: 99-106dB		7.60kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	AC110V-230V	Max.300mA				

Technical Diagram

Units: mm

·QNES-CR / QNES-CR-SUS



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- M20x1.5 cable entry

Ordering Specification

QNES-CR	-	WA	-	110/230	-	R	-	SUS	-	IECEx
[Model number]		[Sound]		[Voltage]		[Color]		[Housing materials]		[Certificates]
QNES-CR		WS-Warning sounds WP-Special warning sounds WM-Melodies WA-Alarms WV-Customizable voices		12/24-DC12V-24V 110/230-AC110V-230V		● R-Red ● A-Amber ● G-Green ● B-Blue		None - Al SUS - STS316L		IECEx ATEX

QNEB

Flame proof and intrinsic safety LED signal beacon & siren buzzer with convenient selection of steady/flashing, strobe, and simulated revolving light functions



QNEB

PRODUCT SPECIFICATION

QNEB

Materials Lens-Tempered glass, Filter-PC, Bracket-STS316L, Protection cage-STS316L, Housing-Al

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C(T5)

-40°C ≤ Tamb ≤ +50°C(T6)

Explosion protection rating

Ex db ib IIC T5/T6 Gb, IP66

Certificates NEPSI, CCC

Housing standard color Red, MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

Flashing rate(LF type) 60-80 flashes/min.

Strobe rate(LS type) 70-80 flashes/min.

Simulated revolving rate(LR type) 120-140RPM

- Compact flame proof and intrinsic safety LED beacon and siren buzzer combination
- Model with complex functions of LED steady, flashing, strobe, and simulated revolving
- Features excellent shock and vibration resistance, maintenance significantly reduced with long-lasting LED light source
- Features superior durability with aluminum housing
- Fully enclosed structure with protection rating of IP66



QNEB Flame Proof and Intrinsic Safety LED Beacon & Siren Buzzer

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QNEB	DC12V -24V	Max. 380mA	· Warning sounds(Buzzer) : Max.100dB		2.30kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	AC110V -230V	Max. 170mA			2.42kg	

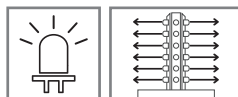
Instruction for Light Function Switch

ON=1/OFF=0

Can select 4 different kinds of light functions with switch configuration

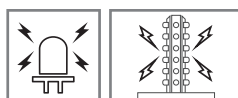
No.	1	2	Operation
0	0	0	LED Steady
1	0	1	LED Flashing
2	1	0	LED Strobe
3	1	1	LED Simulated revolving flashing

Operation



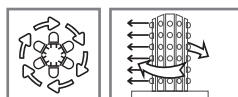
• LED Steady/Flashing

Repeat operation of LED light on/off



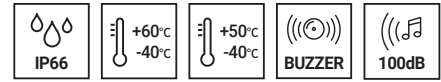
• LED Strobe

Short LED steady/flashing. Creates a xenon flashing effect by providing maximum electric current



• LED Simulated Revolving Flashing

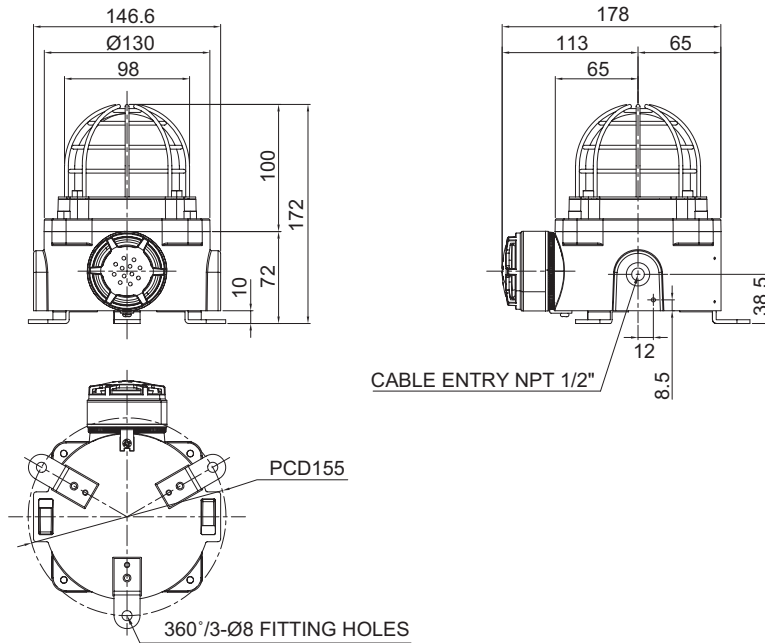
LED flashes steadily around the cylindrical LED filaments which makes a simulated revolving effect



Technical Diagram

Units: mm

·QNEB



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- M20x1.5 cable entry

Ordering Specification

QNEB	-	12/24	-	R	-	CCC(NEPSI)
[Model number]		[Voltage]		[Color]		[Certificates]
QNEB		12/24-DC12V-24V 110/230-AC110V-230V		R-Red A-Amber G-Green B-Blue		CCC(NEPSI)

SNES Series

Siren buzzer sound output of Max.105dB



SNESLR



SNESL

PRODUCT SPECIFICATION

SNESLR | SNESL
SNES-S | SNES

Materials Lens-Tempered glass, Filter-PC, Housing-Al, Protection cage-ST316L, Reflector-PC, Reflector-Heat resistant ABS, Bracket-ST316L

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

-40°C ≤ Tamb ≤ +55°C(KCs)

-20°C ≤ Tamb ≤ +55°C(TIIS)

Sound volume Siren buzzer, Max.105dB at 1m

Explosion protection rating

IECEX - Ex db IIC T6 Gb, Ex db op is IIC T6 Gb (with LED)

ATEX - Ex db IIC T6 Gb, Ex db op is IIC T6 Gb (with LED)

NEPSI, CCC - Ex db IIC T6 Gb, IP66

KCs - Ex d IIB+H2 T6 IP66

TIIS - Ex d IIC T6 Gb, IP66

Certificates

IECEX, ATEX, NEPSI, CCC, KCs, CCS, CCC(F), TIIS

Cable entry 1/2" NPT

Housing standard color MUNSELL No. 7.5BG 7/2

- Light weight and compact explosion proof signal beacon with a siren buzzer
- A variety of light source selections from bulb, LED, and xenon lamp
- Aluminum housing provides excellent durability
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model

※ Usable voltage AC120V: AC110V-120V, AC230V: AC220V-230V

SNESLR LED Revolving Signal Beacon with Siren Buzzer

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SNESLR	DC12V	370mA	· Warning sound(Buzzer) : Max.105dB		3.60kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	370mA			3.60kg	
	AC120V	95mA			4.30kg	
	AC230V	50mA			4.30kg	

- Excellent omni-directional visibility with LED light collecting system and special multifaceted reflector
- Revolving speed: 120-140RPM

SNESL LED Steady/Flashing Signal Beacon with Siren Buzzer

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SNESL	DC12V	270mA	· Warning sound(Buzzer) : Max.105dB		3.65kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	340mA			3.65kg	
	AC120V	90mA			4.30kg	
	AC230V	50mA			4.30kg	

- Long-lasting high intensity LED light source
- Suitable for applications where bulb replacement is hard
- Built-in steady/flashing selection switch
- Flashing rate: 60-80 flashes/min



SNES-S Xenon Strobe Signal Beacon with Siren Buzzer

Model number	Voltage	Current	Xenon lamp			Sound pattern/ dB	Certificates	Weight	Color
			Spec	Standard	Parts no				
SNES-S	DC12V	590mA					IECEx ATEX	3.60kg	R-Red
	DC24V	450mA	200V	BGA2120	47	· Warning sound(Buzzer) : Max.105dB	CCC	3.60kg	A-Amber
	AC120V	120mA	-350V	-BBC			CCC	4.25kg	G-Green
	AC230V	80mA		I type			CCC	4.25kg	B-Blue

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong flashing signal diffusion
- Flashing rate: 60-80 flashes/min

SNES Bulb Revolving Signal Beacon with Siren Buzzer

Model number	Voltage	Current	Bulb			Sound pattern/ dB	Certificates	Weight	Color
			Spec	Standard	Parts no				
SNES	DC12V	1.4A	12V15W	G23 15S	17	· Warning sound(Buzzer) : Max.105dB	IECEx ATEX	3.70kg	R-Red
	DC24V	940mA	24V15W	G23 15S	18		CCC	3.70kg	A-Amber
	AC120V	200mA	12V15W	G23 15S	17		CCC	4.40kg	G-Green
	AC230V	110mA	12V15W	G23 15S	17		CCC	4.40kg	B-Blue

- Excellent signal light diffusion effect with multi-faced reflector
- Revolving speed: 120-140RPM



SNES-S

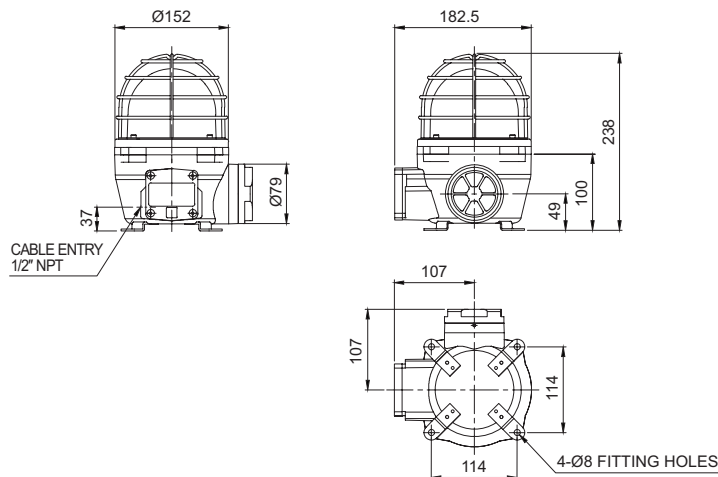


SNES

Technical Diagram

·SNESLR / SNESL / SNES-S / SNES

Units: mm



Ordering Specification

SNES	230	R	IECEx
[Model number]	[Voltage]	[Color]	[Certificates]
SNESLR	12-DC12V	● R-Red	IECEx
SNESL	24-DC24V	● A-Amber	ATEX
SNES-S	120-AC120V	● G-Green	KCs
SNES	230-AC230V	● B-Blue	TIIS(SNESLR only) CCC(NEPSI)

Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- M20x1.5 cable entry
- 48VDC voltageproduct (excluding KCS, TIIS)

SE Series

The brass housing product with excellent corrosion resistance



SEL

PRODUCT SPECIFICATION

SEL | SE-S | SE

Materials Lens-Tempered glass, Filter-PC, Housing-Brass, Protection cage-ST316L, Reflector-PC, Reflector-Heat resistant ABS

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

Explosion protection rating Ex d IIC T6, IP66

Certificates KIMM

Cable entry 1/2" NPT

- Brass housing explosion proof signal beacon with excellent corrosion resistant
- A variety of light source selections from bulb, LED, and xenon lamp
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model



SEL LED Steady/Flashing Signal Beacon

Model number	Voltage	Current	Certificates	Weight	Color
SEL	DC12V-24V	Max.190mA		13.29kg	● R-Red
	AC110V	50mA		14.26kg	● A-Amber
	AC220V	25mA		14.26kg	● G-Green
					● B-Blue

- Long-lasting high intensity LED light source
- Suitable for applications where bulb replacement is hard
- Built-in steady/flashing selection switch
- Flashing rate: 60-80 flashes/min



SE-S Xenon Lamp Strobe Signal Beacon

Model number	Voltage	Current	Xenon lamp			Certificates	Weight	Color
			Spec	Standard	Parts no			
SE-S	DC12V-24V	Max.430mA		BGA2120	47		13.53kg	● R-Red
	AC110V	75mA	200V -350V	-BBC			13.51kg	● A-Amber
	AC220V	75mA		I type			13.51kg	● G-Green
								● B-Blue

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong strobe signal diffusion
- Flashing rate: 60-80 flashes/min



SE Bulb Revolving Warning Beacon

Model number	Voltage	Current	Bulb			Certificates	Weight	Color
			Spec	Standard	Parts no			
SE	DC12V	1A	12V10W	T16x35 15S	9		13.35kg	● R-Red
	DC24V	1.25A	24V10W	T16x35 15S	10		13.35kg	● A-Amber
	AC110V	130mA	12V10W	T16x35 15S	9		13.91kg	● G-Green
	AC220V	65mA	12V10W	T16x35 15S	9		13.91kg	● B-Blue

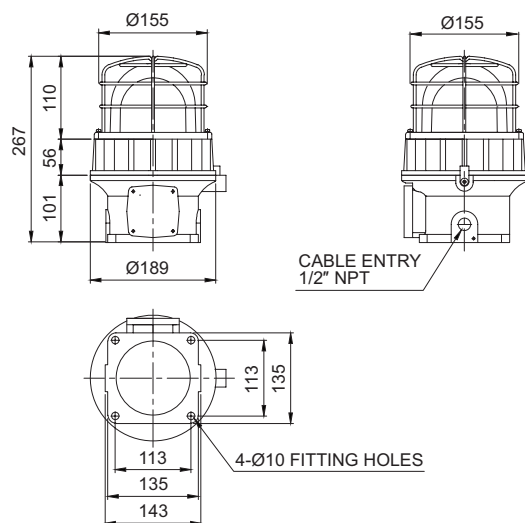
- Excellent signal light diffusion effect with multi-faced reflector
- Revolving speed: 120-140RPM



Technical Diagram

Units: mm

·SEL / SE-S / SE



SE-S



SE

Customization

- Explosion proof cable gland attached type available (Standard type does not provide explosion proof cable gland)
- 2 ways cable entries
- Cable entry 3/4" NPT, M20 x 1.5

Ordering Specification

SE	-	220	-	R
[Model number]		[Voltage]		[Color]
SEL		12-DC12V		● R-Red
SE-S		24-DC24V		● A-Amber
SE		12/24-DC12V-24V(SEL, SE-S only)		● G-Green
		110-AC110V		● B-Blue
		220-AC220V		

SEA Series



SEALR



SEAL

PRODUCT SPECIFICATION

SEALR | SEAL | SEAS | SEA

Materials Lens-Tempered glass, Filter-PC, Housing-Al,

Protection cage-STS316L, Reflector-PC,

Reflector-Heat resistant ABS

Ambient operating temperature

-20°C ≤ Tamb ≤ +60°C(TS)

-40°C ≤ Tamb ≤ +60°C

Explosion protection rating

IECEX - Ex db IIC T6 Gb, IP66

ATEX - II2G Ex db IIC T6 Gb, IP66

KCs - Ex d IIC T6 IP66

NEPSI, CCC - Ex db IIC T6 Gb

TS - Ex db IIC T6 IP66 Gb(SEAL)

Certificates IECEX, ATEX, NEPSI, CCC, KCs, CCS, TS

Housing standard color MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

- Large explosion proof Signal Beacons with excellent visibility for long distance
- A variety of light source selections from bulb, LED, and xenon lamp
- Aluminum housing provides excellent durability
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model

※ Usable voltage AC120V: AC110V-120V, AC230V: AC220V-230V

SEALR LED Revolving Warning Light

Model number	Voltage	Current	Certificates	Weight	Color
SEALR	DC24V	75mA		5.33kg	● R-Red
	AC120V	75mA		5.74kg	● A-Amber
	AC230V	30mA		5.74kg	● G-Green ● B-Blue

- Excellent omni-directional visibility with LED light collecting system and special multifaceted reflector
- Revolving speed: 120-140RPM

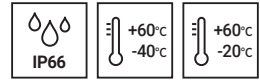
SEAL LED Steady/Flashing Signal Light

Model number	Voltage	Current	Certificates	Weight	Color
SEAL	DC24V	110mA		4.87kg	● R-Red
	AC120V	75mA		5.25kg	● A-Amber
	AC230V	50mA		5.25kg	● G-Green ● B-Blue

- Long-lasting high intensity LED light source
- Suitable for applications where bulb replacement is difficult
- Built-in steady/flashing selection switch
- Flashing rate: 60-80 flashes/min

Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available



SEAS Xenon Lamp Strobe Signal Beacon

Model number	Voltage	Current	Xenon lamp			Certificates	Weight	Color
			Spec	Standard	Parts no			
SEAS	DC24V	350mA		EUB0641	48		5.39kg	● R-Red
	AC120V	120mA	200V -550V	-1A(G)			5.35kg	● A-Amber
	AC230V	90mA		U type			5.35kg	● G-Green ● B-Blue

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong strobe signal diffusion
- Flashing rate: 60-80 flashes/min



SEAS

SEA Bulb Revolving Signal Beacon

Model number	Voltage	Current	Bulb			Certificates	Weight	Color
			Spec	Standard	Parts no			
SEA	DC24V	690mA	24V15W	G23 15S	18		5.36kg	● R-Red
	AC120V	150mA	12V15W	G23 15S	17		5.75kg	● A-Amber
	AC230V	90mA	12V15W	G23 15S	17		5.75kg	● G-Green ● B-Blue

- Excellent diffusion effect with special multifaceted reflector
- Revolving speed: 120-140RPM

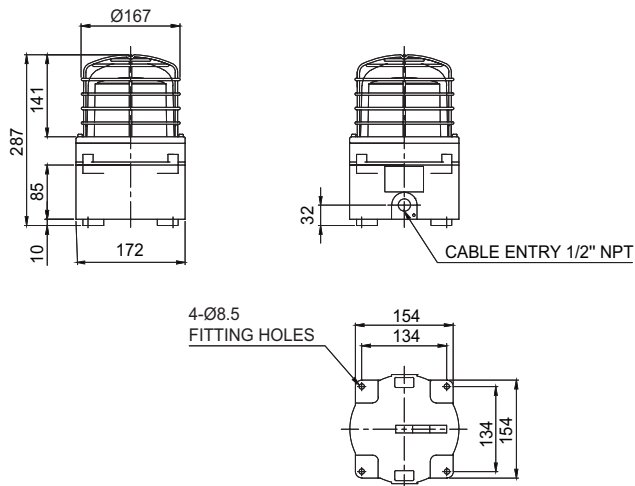


SEA

Technical Diagram

Units: mm

· SEALR / SEAL / SEAS / SEA



Ordering Specification

SEA	-	230	-	R	-	IECEx
[Model number]		[Voltage]		[Color]		[Certificates]
SEALR		24-DC24V		● R-Red		IECEx
SEAL		120-AC120V		● A-Amber		ATEX
SEAS		230-AC230V		● G-Green		KCs
SEA				● B-Blue		CCS(NEPSI) TS

SESA Series

Explosion proof Signal Beacon and Electronic Sounder combinations with sound output of Max.118dB



SESALR



SESAL

PRODUCT SPECIFICATION

SESA Series

Materials Lens-Tempered glass, Filter-PC, Housing-Al, Protection cage-ST316L, Reflector-PC, Reflector-Heat resistant ABS

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C, -40°C ≤ Tamb ≤ +55°C(KCs)

-20°C ≤ Tamb ≤ +60°C(TS)

Explosion protection rating

IECEX - Ex db IIC T6 Gb, IP66

ATEX - II 2G Ex db IIC T6 Gb, IP66

NEPSI, CCC - Ex db IIC T6 Gb, Ex tb IIIC T80°C Db

KCs - Ex d IIB+H2 IP66 T6(SESAL)

Ex d IIC T6 IP66, Ex td A21 T85°C IP66(SESALR)

TS - Ex db IIC T6 IP66 Gb(SESAL)

Certificates IECEX, ATEX, NEPSI, CCC, KCs, CCS, CCC(F), TS

Sound volume Max.118dB at 1m(Volume adjustable)

Housing standard color MUNSELL No. 7.5BG 7/2

- Large explosion proof signal beacon and electronic sounder combinations
- A variety of light sources and sound selections to fit your sophisticated application needs
- Aluminum housing provides excellent durability
- Excellent sealed structure with IP66
- Integrated housing and terminal box model

※ Usable voltage AC120V: AC110V-120V, AC230V: AC220V-230V

SESALR LED Revolving Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SESALR	DC24V	1.16A	·WS-5 Warning sounds: Max.118dB	IECEX ATEX NEPSI CCs	8.31kg	● R-Red
	AC120V	280mA	·WP-5 Special warning sounds: Max.118dB		7.92kg	● A-Amber
			·WM-5 Melodies: Max.118dB			● G-Green
	AC230V	160mA	·WA-5 Alarms: Max.116dB	CCS	7.92kg	● B-Blue

- Excellent omni-directional visibility with LED light collecting system and special multifaceted reflector
- Revolving speed: 120-140RPM

SESAL LED Steady/Flashing Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SESAL	DC24V	1.1A	·WS-5 Warning sounds: Max.118dB	IECEX ATEX NEPSI CCs	8.42kg	● R-Red
	AC120V	90mA	·WP-5 Special warning sounds: Max.118dB		9.02kg	● A-Amber
			·WM-5 Melodies: Max.118dB			● G-Green
	AC230V	150mA	·WA-5 Alarms: Max.116dB	CCS	9.02kg	● B-Blue

- Long product lifetime with the application of a high intensity LED light source
- Suitable for locations where bulb replacement is inconvenient
- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch)

※ CCC(F) compliant: DC24V

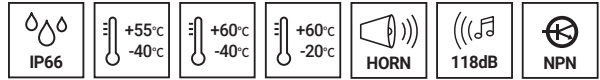
SESAS Xenon Strobe Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Xenon lamp Spec Standard Parts no	Sound Pattern and Volume	Certificates	Weight	Color
SESAS	DC24V	1.27A	EUB0641 200V -1A(G) U type 48	·WS-5 Warning sounds : Max.118dB	IECEX ATEX NEPSI CCs	8.45kg	● R-Red
	AC120V	300mA		·WP-5 Special warning sounds: Max.118dB		8.86kg	● A-Amber
				·WM-5 Melodies: Max.118dB			● G-Green
	AC230V	180mA		·WA-5 Alarms: Max.116dB	CCS	8.86kg	● B-Blue

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong strobe signal diffusion
- Flashing rate: 60-80 flashes/min

※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.



SESA Bulb Revolving Signal Beacon and Electronic Sounder Combination

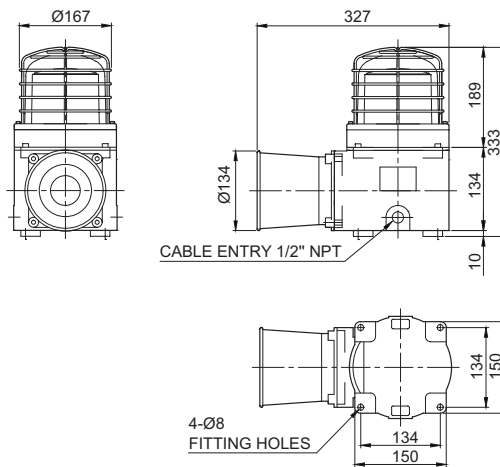
Model number	Voltage	Current	Bulb Spec	Standard	Parts no	Sound pattern and volume	Certificates	Weight	Color
	DC24V	1.45A	24V15W G23 15S		18	·WS-5 Warning sounds : Max.118dB		8.57kg	● R-Red
SESA	AC120V	300mA	12V15W G23 15S		17	·WP-5 Special warning sounds: Max.118dB ·WM-5 Melodies : Max.118dB ·WA-5 Alarms: Max.116dB	IECEx, Ex, ATEX, KCs, CCC (NEPSI)	9.27kg	● A-Amber ● G-Green ● B-Blue
	AC230V	180mA	12V15W G23 15S		17	·WV-5 Customizable voices : 110-115dB		9.27kg	

- Excellent diffusion effect with special multifaceted Reflector
- Revolving speed: 120-140RPM

Technical Diagram

Units: mm

· SESALR / SESAL / SESAS / SESA



SESA

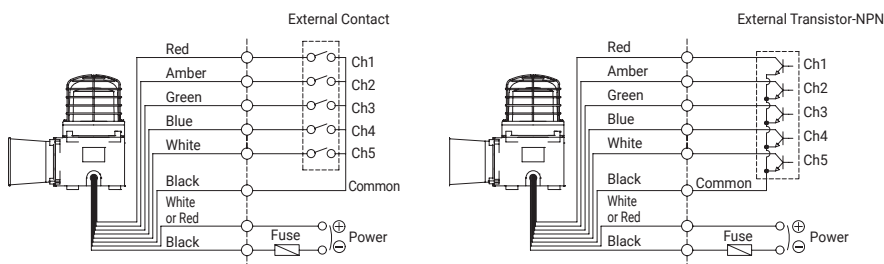


SESAS

Sound Selection Instructions and Wiring

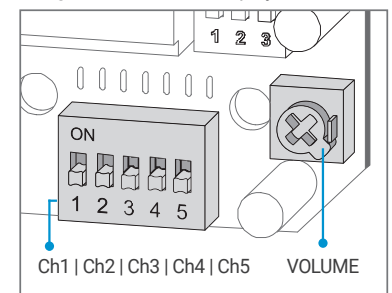
- Customization: External contact(LC)
Customization of signal line threading can be choice between external contact and transistor which can be fit for control unit.

· SESALR / SESAL / SESAS / SESA-DC/AC



- SESA, SESALR - Black output line is negative(-).

- Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Ordering Specification

SESAS	-	WS	-	230	-	R	-	IECEx
[Model number]		[Sound]		[Voltage]		[Color]		[Certificates]
SESALR		WS-Warning sounds		24-DC24V		● R-Red		IECEx
SESAL		WP-Special warning sounds		120-AC120V		● A-Amber		ATEX
SESAS		WM-Melodies		230-AC230V		● G-Green		KCs
SESA		WA-Alarms				● B-Blue		CCC (NEPSI)
		WV-Customizable voices						TS

Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available
- KCs certified IIC compliant products (SPNAKC)

SEBA Series



SEBA

PRODUCT SPECIFICATION

SEBALR I SEBAL
SEBAS I SEBA

Materials Lens-Tempered glass, Filter-PC, Housing-Al, Protection cage-STS316L, Reflector-PC, Reflector-Heat resistant ABS
Ambient operating temperature $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$
Explosion protection rating Ex d IIC T6, IP55
Housing standard color MUNSELL No. 7.5BG 7/2
Cable entry 1/2" NPT

- Large explosion proof signal beacon and alarm bell combinations



SEBAL

SEBALR LED Revolving Signal Beacon and Alarm Bell

Model number	Voltage	Current	Volume	Certificates	Weight	Color
SEBALR	DC24V	190mA	Max.95dB	-	7.20kg	R-Red
	AC110V	140mA			7.92kg	A-Amber
	AC220V	60mA			7.92kg	G-Green
						B-Blue

· Revolving speed: 120-140RPM

SEBAL LED Steady/Flashing Signal Beacon and Alarm Bell

Model number	Voltage	Current	Volume	Certificates	Weight	Color
SEBAL	DC24V	210mA	Max.95dB	-	7.25kg	R-Red
	AC110V	160mA			7.99kg	A-Amber
	AC220V	70mA			7.99kg	G-Green
						B-Blue

· Flashing rate: 60-80 flashes/min(Built in switch for steady/flashing selection)

SEBAS Xenon Strobe Signal Beacon and Alarm Bell

Model number	Voltage	Current	Xenon lamp			Volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SEBAS	DC24V	660mA	200V -550V	EUB0641 -1A(G) U type	48	Max. 95dB	-	7.37kg	R-Red
	AC110V	220mA						8.06kg	A-Amber
	AC220V	160mA						8.06kg	G-Green
									B-Blue

· Lamp connector fastening structure allows for convenient lamp replacement

· Flashing rate: 60-80 flashes/min

SEBA Bulb Revolving Signal Beacon and Alarm Bell

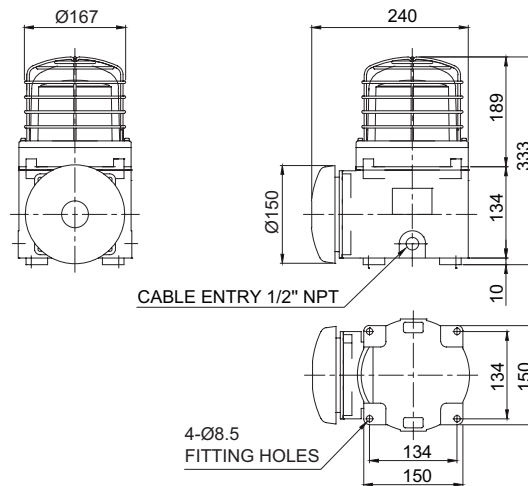
Model number	Voltage	Current	Bulb			Volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SEBA	DC24V	870mA	24V15W	G23 15S	18	Max. 95dB	KIMM	7.37kg	R-Red
	AC110V	290mA	12V15W	G23 15S	17			8.06kg	A-Amber
	AC220V	140mA	12V15W	G23 15S	17			8.06kg	G-Green
									B-Blue

· Revolving speed: 120-140RPM

Technical Diagram

Units: mm

·SEBALR / SEBAL / SEBAS / SEBA



SEBAS



SEBALR

Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available

Ordering Specification

SEBA	-	220	-	R
[Model number]		[Voltage]		[Color]
SEBALR		24-DC24V		● R-Red
SEBAL		110-AC110V		● A-Amber
SEBAS		220-AC220V		● G-Green
SEBA				● B-Blue



SSEL

PRODUCT SPECIFICATION

SSEL

Materials Lens-Tempered glass, Housing-Al

Ambient operating temperature

$-40^{\circ}\text{C} \leq \text{Tamb} \leq +60^{\circ}\text{C}$

Explosion protection rating Ex d IIC T6, IP66

Certificates KIMM

Housing standard color MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

- Suitable for helideck and other dangerous areas that require a perimeter light
- Structure minimizing the projection of lens, can be protected from damage by external impact
- Product structure with 100mm height meets the IMD regulation condition
- Aluminum housing provides excellent durability
- Terminal for power wiring located inside of the housing



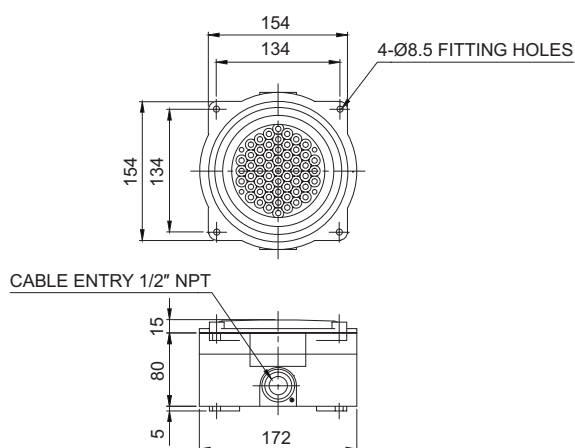
SSEL Explosion Proof LED Perimeter Light

Model number	Voltage	Current	Certificates	Weight	Color
SSEL	DC12V	460mA		2.54kg	<ul style="list-style-type: none"> ● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	250mA		2.54kg	
	AC110V	40mA		2.54kg	
	AC220V	40mA		2.54kg	

Technical Diagram

·SSEL

Units: mm



Customization

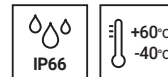
- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry(3/4" NPT, M20×1.5, M25×1.5) available

Ordering Specification

SSEL	-	220	-	R
[Model number]		[Voltage]		[Color]
SSEL		12-DC12V 24-DC24V 110-AC110V 220-AC220V		<ul style="list-style-type: none"> ● R-Red ● A-Amber ● G-Green ● B-Blue

Explosion Proof Low Intensity LED Aviation Obstruction Light

QEAL1



PRODUCT SPECIFICATION

QEAL1

ICAO standard Low intensity B type
Materials Lens-Tempered glass, Housing-Al,
 Protection cage-STSS316L, Heat sink-Al
Ambient operating temperature -40°C ≤ Tamb ≤ +60°C
Explosion protection rating KCs - Ex db IIC T4 Gb IP66
Certificates ICAO, KCs
Standard housing color Red
Cable entry 1/2" NPT
Light source High intensity light emitting diodes(LED)
Light color Red
Luminous intensity 50cd±25%
Light function Steady

- Low Intensity B type explosion proof aviation obstruction light
- Features high visibility from a distance with the direct LED light distribution system
- Cost savings enabled by using a long lasting LED light source which eliminates the need for maintenance
- Aluminum housing provides excellent durability
- Terminals located inside the housing for wiring



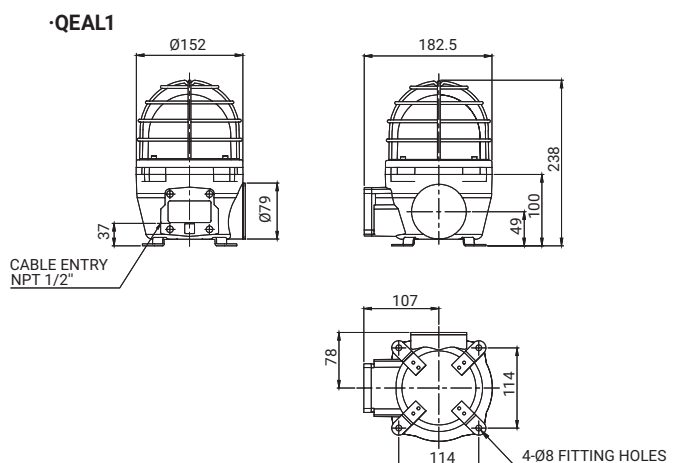
QEAL1

QEAL1 Explosion Proof Low Intensity LED Aviation Obstruction Light

Model number	Voltage	Power consumption	Certificate	Weight	Light color
QEAL1	DC12V	Max.30W		3.90kg	● R-Red
	DC24V				
	AC110V-240V				

Technical Diagram

Units: mm



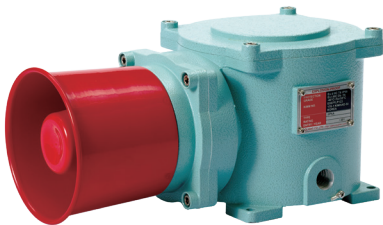
Customization

- Built-in explosion proof cable gland available(Standard type does not provide explosion proof cable gland)
- Customized 2 cable entries available
- Customized cable entry(M20×1.5) available
- Built-in darkness detecting sensor available
- Amber housing, mounting bracket is available upon request

Ordering Specification

QEAL1	-	24	-	R
[Model number]		[Voltage]		[Color]
QEAL1		12-DC12V 24-DC24V 110/240-AC110V-240V		● R-Red

SPNA



SPNA

PRODUCT SPECIFICATION

SPNA

Materials Housing-Al, Horn housing-STS316L

Ambient operating temperature

-20°C ≤ Tamb ≤ +60°C(TS), -40°C ≤ Tamb ≤ +60°C

-40°C ≤ Tamb ≤ +55°C(KCs)

Sound volume Max.118dB at 1m

Explosion protection rating

IECEX - Ex db IIC T6 Gb, IP66

ATEX - II 2G Ex db IIC T6 Gb, IP66

NEPSI, CCC - Ex db IIC T6 Gb, IP66

KCs - Ex d IIB+H2 IP66 T6(SPNA)

Ex d IIC T6 IP66(SPNAKC)

Ex tD A21 IP65 T85°C(SPNAKC)

TS - Ex db IIC T6 IP66 Gb

Certificates IECEX, ATEX, NEPSI, CCC, KCs, CCS, TS

Housing standard color MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

- Explosion proof Alarm Horn Sounder
- Various sound tones can be selected ; warning sound, alarm, melody
- Aluminum housing provides excellent durability
- Equipped terminal box for power line wiring in housing

※ Usable voltage AC120V: AC110V-120V, AC230V: AC220V-230V

SPNA Max.118dB Explosion Proof Electronic Sounder

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SPNA	DC24V	830mA	·WS-5 Warning sounds: Max.118dB ·WP-5 Special warning sounds : Max.118dB		6.09kg
	AC120V	190mA	·WM-5 Melodies: Max.118dB ·WA-5 Alarms: Max.116dB		6.44kg
	AC230V	110mA	·WV-5 Customizable voices: 110-115dB		6.44kg

※ Please refer to [Sound tone and combination for standard product] on this catalogue for detailed sound tone specification

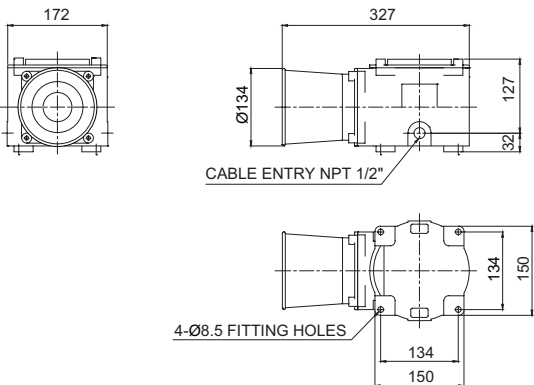
※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Technical Diagram

·SPNA

Units: mm



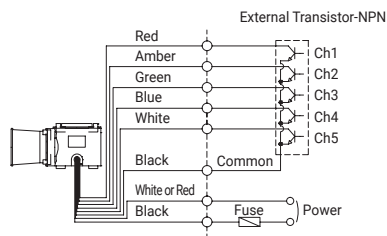
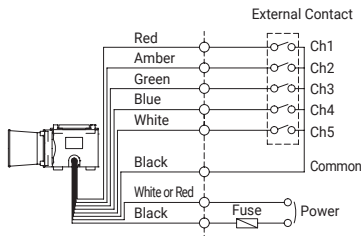


Sound Selection Instructions and Wiring

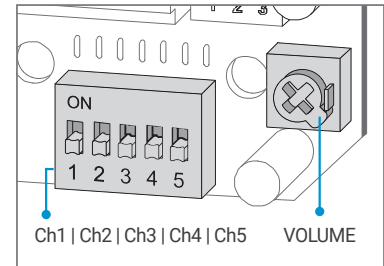
- Customization : External contact(LC)

In case of select sound between external contact and transistors, sound line is threading as customization when product released(LC).

SPNA-DC/AC



- Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available
- KCs certified IIC compliant products(SPNAKC)

Ordering Specification

SPNA	-	WM	-	230	-	LC	-	IECEX
[Model number]		[Sound]		[Voltage]		[Sound selection]		[Certificates]
SPNA		WS-Warning sounds WP-Special warning sounds WM-Melodies WA-Alarms WV-Customizable voices		24-DC24V 120-AC120V 230-AC230V		None-Built-in switch LC-External contact		IECEX ATEX KCs CCC(NEPSI) TS



SBE130



SBE150

PRODUCT SPECIFICATION

SBE130 | SBE150

Materials Housing-Al, Bell Housing-Al**Ambient operating temperature**

-40°C ≤ Tamb ≤ +60°C

Sound volume Max.95dB at 1m**Explosion protection rating**

SBE130: IP56

SBE150: Ex d IIC T6, IP56

Certificates KIMM**Housing standard color** MUNSELL No. 7.5BG 7/2**Cable entry** 1/2" NPT

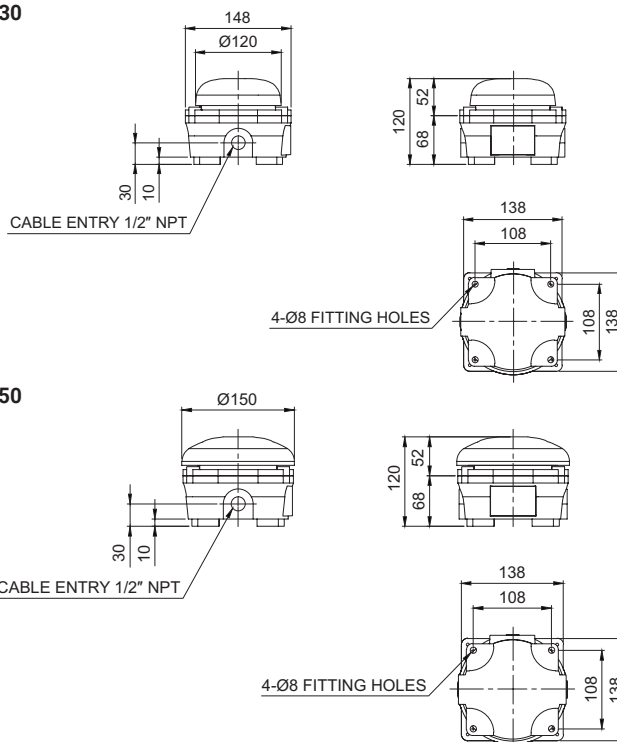
- Explosion proof alarm bell for audible signal in dangerous area
- Adopts special solenoid bell structure, suitable in vessels which encounter serious vibration and impact or outdoor plants application
- Fully enclosed structure with protection rating of IP56

SBE130 / SBE150 Max.95dB Explosion Proof Alarm Bell

Model number	Frequency	Volume	Bell diameter	Voltage	Current	Certificates	Weight
SBE130	400Hz	Max. 95dB	120mm	DC24V	55mA	-	2.27kg
				AC110V	40mA		
				AC220V	20mA		
SBE150	600Hz	Max. 95dB	150mm	DC24V	55mA	KIMM	2.52kg
				AC110V	45mA		
				AC220V	25mA		

Technical Diagram

Units: mm



Customization

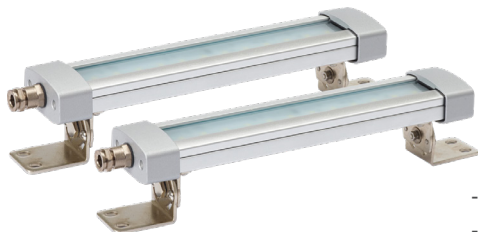
- Explosion proof cable gland attached type available(Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available

Ordering Specification

SBE130	-	220
[Model number]		[Voltage]
SBE130		24-DC24V
SBE150		110-AC110V
		220-AC220V

Non-Sparking Explosion Proof LED Work Light

QMFL300-Ex-24



QMFL300-Ex-24

PRODUCT SPECIFICATION

QMFL300-Ex-24

Materials Housing-Al, Side cover-Al,

Lens-Tempered glass, Bracket-SPC-1

Ambient operating temperature $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$

Protection rating KCs - Ex nR II T6

NEPSI - Ex nR IIC T6 Gc, IP67/IP69K

Certificates KCs, NEPSI

- Water, vibration and oil resistant LED work lights with non-sparking ex-proof feature
- Special epoxy sealed structure provides excellent oil resistance
- Aluminum housing and tempered glass improves durability and stability in hazardous areas(Explosive zone)
- Can be used for Zone 2 application with explosion proof rating of nR

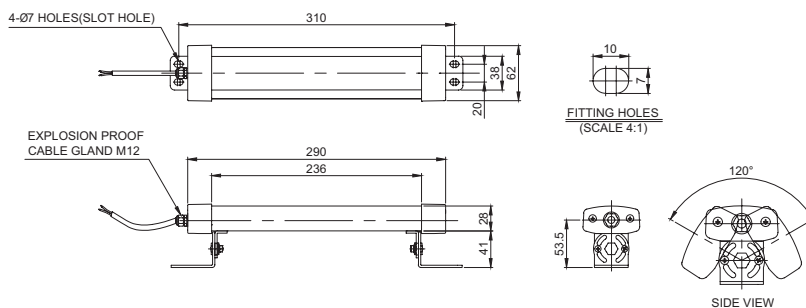
QMFL300-Ex-24 Non-Sparking Explosion Proof LED Work Light

Optics Specifications	
Model number	QMFL300-Ex-24
Lens color	Translucent
Light color	Cooldaylight
Color temperature	6,000-7,000K
Luminous flux	DC 600lm
Illumination(at 1m)	DC 260Lux
Specifications	
Model number	QMFL300-Ex-24
Voltage	DC24V
Range for operation voltage	DC21.5V-26.5V
Power consumption	10W
Insulation resistance	Min. 100MΩ(500V DC mega ohm meter)
Withstanding voltage	DC: 500VAC, 60Hz, 1 minute
Operating temperature	-40°C to $+60^{\circ}\text{C}$
Protection rating	IP67/IP69K
Materials	Housing-Al, Side cover-Al, Lens-Tempered glass, Bracket-SPC-1
Certification	
Weight(Approx.)	0.79kg

Technical Diagram

Units: mm

QMFL300-Ex-24



Ordering Specification

QMFL	-	300	-	Ex	-	24	-	KCs
[Model number]		[Product length]		[Ex-proof]		[Voltage]		[Certificates]
QMFL-Anti glare type		300-290mm		Ex-Non-sparking ex-proof type		24-DC24V		KCs NEPSI

Cautions in use

- Contact structure of an explosion proof product must be a qualified part we provide. Please do not disassemble, assemble, modify or repair arbitrarily.



QLEX-350

PRODUCT SPECIFICATION

QLEX-350

Materials Side cover-Al, Lens-PC,

Side cover out-NBR, Bracket-Al

Ambient operating temperature $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$ **Protection rating** KCs - Ex d IIC T6

NEPSI - Ex db IIC T6 Gb

Certificates KCs, NEPSI, CE**Cable entry** M12xP1.5

- Explosion proof LED luminaires/work light designed for use in explosive gas environments with Ex d IIC rating
- Enhanced durability with aluminum housing and polycarbonate lens tube
- Semi-permanent service life with long-lasting LED light source
- Features special structure that allows to adjust light angle by turning the light tube

QLEX-350 Explosion Proof LED Luminaires/Work Light

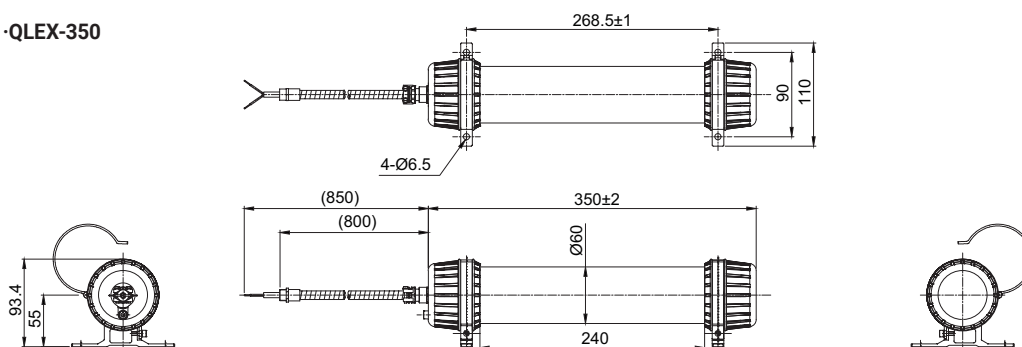
Optics Specifications		
Model		QLEX-350
Lens color		Transparent/Translucent
Light color		Cooldaylight
Color temperature		6,000-7,000K
Luminous flux	DC	650lm
Illumination(at 1m)	DC	230Lux

Specifications		
Model		QLEX-350
Voltage		DC24V
Range for operation voltage		DC21.6V-26.4V
Power consumption		8.6W
Insulation resistance		Min. 100MΩ(500V DC mega ohm meter)
Withstanding voltage		DC: 500VAC, 60Hz, 1 minute
Protection rating		IP66/67
Materials		Side cover-Al, Lens-PC, Side cover out-NBR, Bracket-Al
Certifications		CE
Weight(Approx.)		1.12Kg

Technical Diagram

Units: mm

QLEX-350



· External power line - Dura & Flex-F-Vu (0.5sq) 850mm

Ordering Specification

QLEX	-	350	-	24	-	NEPSI
[Model number]		[Product length]		[Voltage]		[Certificates]
QLEX		350-350mm		24-DC24V		KCs NEPSI

Cautions in use

- Contact structure of an explosion proof product must be a qualified part we provide. Please do not disassemble, assemble, modify or repair arbitrarily.



QLEX-NEC-250

PRODUCT SPECIFICATION

QLEX-NEC-250

Materials Side cover-Al, Lens-PC, Bracket-Al**Ambient operating temperature**

-20°C ≤ Tamb ≤ +40°C (INTERTEK-NRTL)

-40°C ≤ Tamb ≤ +60°C (IECEX)

Explosion protection rating

Class I, Division 2 Groups ABCD T6



Class I, Zone 1, AEx db IIC T6 Gb

Ex db IIC T6 Gb

Protection rating IP66/67**Certificates** INTERTEK(NRTL), IECEx, CE**Cable entry** M20xP1.5, 1/2" NPT

- Explosion proof LED luminaires/work light designed for use in explosive gas environments with Ex d IIC rating
- Enhanced durability with aluminum housing and polycarbonate lens tube
- Slim and compact structure realize aesthetically pleasing design
- Semi-permanent service life with long-lasting LED light source
- Features special structure that allows to adjust light angle by turning the light tube

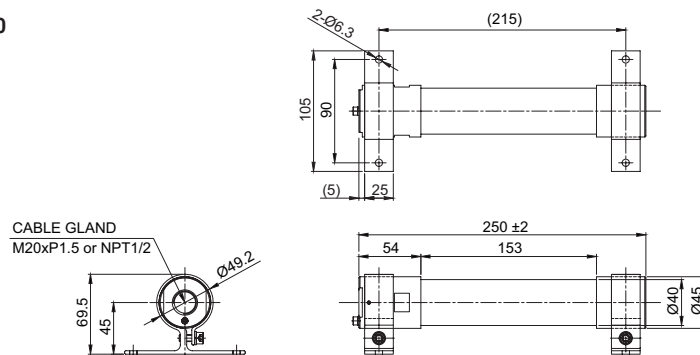
QLEX-NEC-250 Explosion Proof LED Luminaires/Work Light

Optics Specifications	
Model	QLEX-NEC-250
Lens color	Translucent
Light color	Cooldaylight
Color temperature	6,000-7,000K
Illumination(at 1m)	310Lux
Specifications	
Model	QLEX-NEC-250
Voltage	DC24V
Range for operation voltage	DC21.6V-26.4V
Power consumption	8.6W
Insulation resistance	Min. 100MΩ(500V DC mega ohm meter)
Withstanding voltage	DC:500V AC, 60Hz, 1minute
Protection rating	IP66/67
Materials	Side cover-Al, Lens-PC, Bracket-Al
Certifications	 
Weight(Approx.)	0.50Kg

Technical Diagram

Units: mm

QLEX-NEC-250



Ordering Specification

QLEX-NEC	-	250	-	24	-	INTERTEK(NRTL)
[Model number]		[Product length]		[Voltage]		[Certificates]
QLEX-NEC		250-250mm		24-DC24V		INTERTEK(NRTL) IECEX

Cautions in use

- Contact structure of an explosion proof product must be a qualified part we provide. Please do not disassemble, assemble, modify or repair arbitrarily.
- Explosion proof cable gland attached type available (Standard type does not provide explosion proof cable gland)
- Cable entry M20xP1.5, 1/2" NPT

QLEX-TRI-240(PL)



QLEX-TRI-240(PL)



PRODUCT SPECIFICATION

QLEX-TRI-240(PL)

Materials Side cover-AL, Lens-PC, Bracket-PC**Ambient operating temperature** $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$ **Protection rating** Ex d IIC T6**Certificates** KCs, NEPSI

- Explosion proof LED luminaires/work light designed for use in explosive gas environments with Ex d IIC rating
- Enhanced durability with aluminum housing and polycarbonate lens tube
- Slim and compact structure realize aesthetically pleasing design
- Semi-permanent service life with long-lasting LED light source

QLEX-TRI-240(PL) Explosion Proof LED Luminaires/Work Light

Optics Specifications		
Model	QLEX-TRI-240(PL)	
Lens color	Translucent	
Light color	Cooldaylight	
Color temperature	6,000-7,000K	
Luminous flux	DC	650lm
Illumination(at 1m)	DC	310Lux
Specifications		
Model	QLEX-TRI-240(PL)	
Voltage	DC24V	
Range for operation voltage	DC21.5V-26.5V	
Power consumption	8.6W	
Insulation resistance	Min. 100MΩ(500V DC mega ohm meter)	
Withstanding voltage	DC: 500VAC, 60Hz, 1 minute	
Protection rating	IP66/67	
Materials	Side cover-AL, Lens-PC, Bracket-PC	
Certifications	 	
Weight(Approx.)	0.62Kg	

Ordering Specification

QLEX-TRI	-	240(PL)	-	24	-	KCs
[Model number]		[Product length]		[Voltage]		[Certificates]
QLEX-TRI		240-240mm		24-DC24V		KCs NEPSI

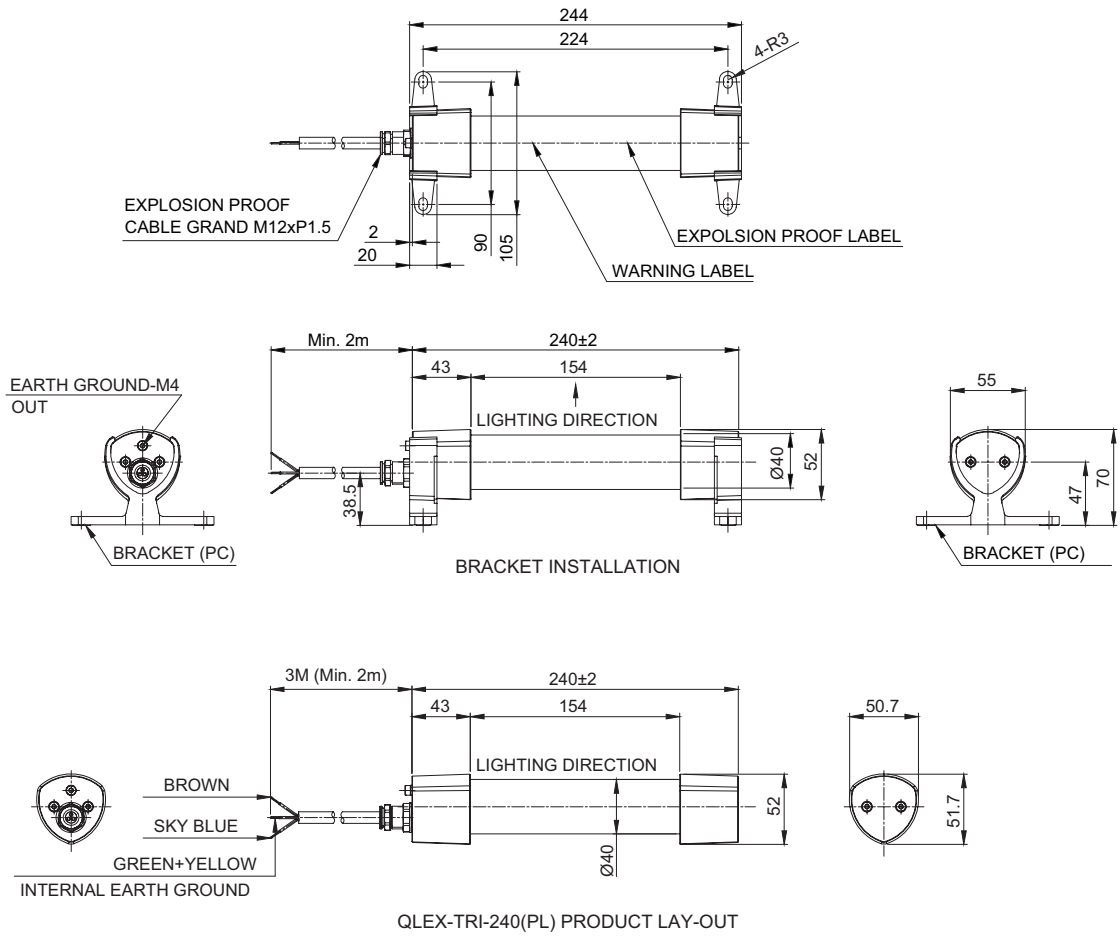
Cautions in use

- Contact structure of an explosion proof product must be a qualified part we provide. Please do not disassemble, assemble, modify or repair arbitrarily.

Technical Diagram

Units: mm

·QLEX-TRI-240(PL)



QLEX-SLM Series



QLEX-SLM Series

PRODUCT SPECIFICATION

QLEX-SLM-250
QLEX-SLM-650

Materials Side cover-Al, Lens-PC, Bracket-Al

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C(QLEX-SLM-250)

-40°C ≤ Tamb ≤ +55°C(QLEX-SLM-650: T6)

-40°C ≤ Tamb ≤ +60°C(QLEX-SLM-650: T5)

Protection rating

ATEX - II 2G Ex db IIC T6 Gb

IECEX - Ex db IIC T6 Gb

KCs - Ex d II C T6(QLEX-SLM-250)

Ex d II C T5/T6(QLEX-SLM-650)

NEPSI - Ex db IIC T6 Gb(QLEX-SLM-250)

Certificates CE, KCs, NEPSI, S-mark, ATEX, IECEX

Cable entry M12xP1.5

- Explosion proof LED luminaires/work light designed for use in explosive gas environments with Ex d IIC rating
- Enhanced durability with aluminum housing and polycarbonate lens tube
- Slim and compact structure realize aesthetically pleasing design
- Semi-permanent service life with long-lasting LED light source
- Features special structure that allows to adjust light angle by turning the light tube

Specifications











QLEX-SLM-250

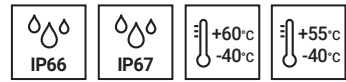


QLEX-SLM-650



QLEX-SLM Series Explosion Proof LED Luminaires/Work Light

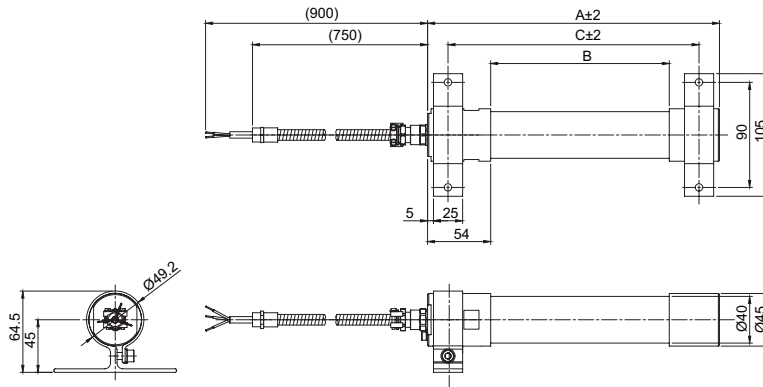
Optics Specifications				
Model number		QLEX-SLM-250		QLEX-SLM-650
Lens color		Translucent		
Light color		Cooldaylight		
Color temperature		6,000-7,000K		
Luminous flux	DC	650lm	1,800lm	
	AC	350lm	1,580lm	
Illumination(at 1m)	DC	310Lux	650Lux	
	AC	240Lux	530Lux	
Specifications				
Model number		QLEX-SLM-250		QLEX-SLM-650
Rated voltage		DC24V	AC220V	DC24V AC220V
Range for operation voltage		DC21.6V-26.4V	AC198V-242V	DC21.6V-26.4V AC198V-242V
Power consumption		8.6W	9W	20W 23W
Insulation resistance		Min. 100MΩ(500V DC mega ohm meter)		
Withstanding voltage		DC: 500VAC, 60Hz, 1minute/AC: 1,500VAC, 60Hz, 1minute		
Protection rating		IP66/67		
Materials		Side cover-Al, Lens-PC, Bracket-Al		
Certifications		         		
Weight(Approx.)		0.50Kg		0.93Kg



Technical Diagram

Units: mm

QLEX-SLM Series



Model number	A	B	C	BRACKET
QLEX-SLM-250	250	153	-	1EA
QLEX-SLM-650	650	553	613	2EA

Ordering Specification

QLEX-SLM	-	250	-	24	-	ATEX
[Model number]		[Product length]		[Voltage]		[Certificates]
QLEX-SLM		250-250mm 650-650mm		24-DC24V 220-AC220V		ATEX IECEx KCs NEPSI

Cautions in use

Contact structure of an explosion proof product must be a qualified part we provide. Please do not disassemble, assemble, modify or repair arbitrarily.

Flame and Dust Ignition Proof Slim LED Signal Tower Light

QST50-Ex



QST50-Ex

PRODUCT SPECIFICATION

QST50-Ex | QST50B-Ex

Materials

Lens-PC, Diffusion lens-PC, Housing-Al, Cover-Al

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

Explosion protection rating

IECEX - Ex db IIC T6 Gb

Ex tb IIIC T85°C Db

ATEX - Ex db IIC T6 Gb

Ex tb IIIC T85°C Db

KCs - Ex db IIC T6 Gb, IP66/IP67

Certificates IECEX, ATEX, KCs, NEPSI, CCC

Sound volume Max.90dB at 1m

Housing standard color Silver

Cable entry M20xP1.5, 1/2"NPT

Flashing rate 60-80 flashes/min

- Ex db IIC T6 Gb rated flame/dust ignition proof LED tower light for use in explosive gas areas
- Excellent long-distance visibility by applying a special light diffusion tube that condenses LED light
- Aluminum housing provides excellent durability
- Semi-permanent service life with long-lasting LED light source



QST50-Ex Flame/Dust Ignition Proof Slim LED Signal Tower Light

Model number	Layer	Voltage	Certificates	Weight	Color
QST50-Ex	1	DC24V		1.13kg	R-Red
		AC110V-230V			
	2	DC24V			R-Red
		AC110V-230V			G-Green
	3	DC24V			R-Red
		AC110V-230V			A-Amber
	4	DC24V			G-Green
		AC110V-230V			B-Blue
	5	DC24V			R-Red
		AC110V-230V			A-Amber

Light source current(based on 1 layer)

Voltage	DC24V	AC110V-230V
Light source current(1 layer)	75mA	Max.55mA

Ordering Specification

QST50-Ex	-	5	-	24	-	RAGBW	-	IECEX
[Model number]		[Layer]		[Voltage]		[Color]		[Certificates]
QST50-Ex		1-1Layer		24-DC24V		R-Red		IECEX
		2-2Layers		110/230-AC110V-230V		A-Amber		ATEX
		3-3Layers				G-Green		KCs
		4-4Layers				B-Blue		CCC(NEPSI)
		5-5Layers				W-White		

Flame/Dust Ignition Proof Slim LED Signal Tower Light with Built-in Buzzer

QST50B-Ex



QST50B-Ex Flame/Dust Ignition Proof Slim LED Signal Tower Light with Built-in Buzzer

Model number	Layer	Voltage	Certificates	Weight	Color
QST50B-Ex	1	DC24V		1.30kg	R-Red
		AC110V-230V			
	2	DC24V			R-Red
		AC110V-230V			G-Green
	3	DC24V			R-Red
		AC110V-230V			A-Amber G-Green
	4	DC24V			R-Red A-Amber G-Green B-Blue
		AC110V-230V			
	5	DC24V			R-Red A-Amber G-Green B-Blue W-White
		AC110V-230V			

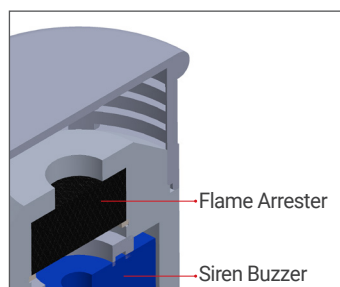


QST50B-Ex

Light source/buzzer current(based on 1 layer)

Voltage	DC24V	AC110V-230V
Light source current(1 layer)	75mA	Max.55mA
Buzzer current	50mA	Max.40mA

Explosion proof structure for buzzer model



· FLAME ARRESTER

A flame arrester(also called a deflagration arrester) functions by absorbing the heat from a flame front traveling at sub-sonic velocities, thus dropping the burning gas/air mixture below its auto-ignition temperature: consequently, the flame cannot survive. The heat is absorbed through channels (passages) designed into an element.

Ordering Specification

QST50B-Ex	-	5	-	24	-	RAGBW	-	IECEx
[Model number]		[Layer]		[Voltage]		[Color]		[Certificates]
QST50B-Ex		1-1Layer 2-2Layers 3-3Layers 4-4Layers 5-5Layers		24-DC24V 110/230-AC110V-230V		R-Red A-Amber G-Green B-Blue W-White		IECEx ATEX KCs CCC(NEPSI)

Flame/Dust Ignition Proof Slim LED Signal Tower Light with Terminal Block

QST50T-Ex



QST50T-Ex

PRODUCT SPECIFICATION

QST50T-Ex | QST50BT-Ex

Materials

Lens-PC, Light diffusion Lens-PC, Housing-Al, Cover-Al

Ambient operating temperature $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$

Sound volume Max.90dB at 1m(Built-in buzzer type)

Explosion protection rating

IECEX - Ex db IIC T6 Gb

Ex tb IIIC T85°C Db

ATEX - Ex db IIC T6 Gb

Ex tb IIIC T85°C Db

KCs - Ex db IIC T6 Gb, IP66/IP67

Certificates IECEX, ATEX, KCs, NEPSI, CCC

Sound volume Max.90dB at 1m

Housing standard color Silver

Cable entry M20xP1.5, 1/2"NPT

Flashing rate 60-80 flashes/min

- Ex db IIC T6 Gb rated flame/dust ignition proof LED tower light for use in explosive gas areas
- Excellent long-distance visibility by applying a special light diffusion tube that condenses LED light
- Features superior durability with aluminum housing
- Semi-permanent service life with long-lasting LED light source
- Terminal block located inside the housing for easy power wiring



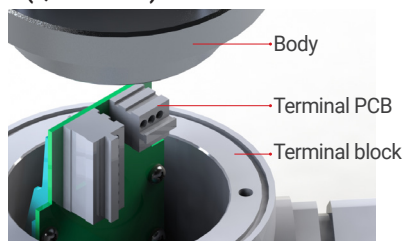
QST50T-Ex Flame/Dust Ignition Proof Slim LED Signal Tower Light with Terminal Block

Model number	Layer	Voltage	Certificates	Weight	Color
QST50T-Ex	1	DC24V		1.77Kg	R-Red
		AC110V-230V			
	2	DC24V			R-Red
		AC110V-230V			G-Green
	3	DC24V			R-Red
		AC110V-230V			A-Amber
	4	DC24V			G-Green
		AC110V-230V			B-Blue
	5	DC24V			R-Red
		AC110V-230V			A-Amber

Light source current(based on 1 layer)

Voltage	DC24V	AC110V-230V
Light source current(1 layer)	75mA	Max.55mA

Terminal Box Wiring Instructions (QST50T-Ex)

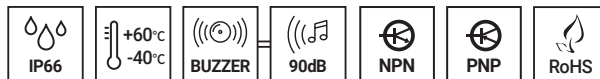


Ordering Specification

QST50T-Ex	-	5	-	24	-	RAGBW	-	IECEX
[Model number]		[Layer]		[Voltage]		[Color]		[Certificates]
QST50T-Ex		1-1Layer		24-DC24V		R-Red		IECEX
		2-2Layers		110/230-AC110V-230V		A-Amber		ATEX
		3-3Layers				G-Green		KCs
		4-4Layers				B-Blue		CCC(NEPSI)
		5-5Layers				W-White		

Flame/Dust Ignition Proof Slim LED Signal Tower Light with Built-in Buzzer and Terminal Block

QST50BT-Ex



QST50BT-Ex Flame/Dust Ignition Proof Slim LED Tower Light with Built-in Buzzer & Terminal Block

Model number	Layer	Voltage	Certificates	Weight	Color
QST50BT-Ex	1	DC24V		1.93Kg	R-Red
		AC110V-230V			
	2	DC24V			R-Red
		AC110V-230V			G-Green
	3	DC24V			R-Red
		AC110V-230V			A-Amber G-Green
	4	DC24V			R-Red
		AC110V-230V			A-Amber G-Green B-Blue
	5	DC24V			R-Red
		AC110V-230V			A-Amber G-Green B-Blue W-White

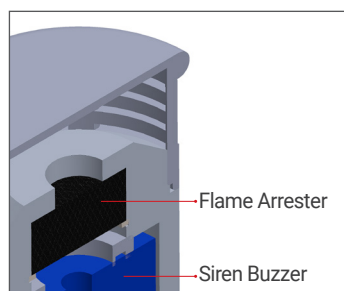


QST50BT-Ex

Light source/buzzer current(based on 1 layer)

Voltage	DC24V	AC110V-230V
Light source current(1 layer)	75mA	Max.55mA
Buzzer current	50mA	Max.40mA

Explosion proof structure for buzzer model



· FLAME ARRESTER

A flame arrester(also called a deflagration arrester) functions by absorbing the heat from a flame front traveling at sub-sonic velocities, thus dropping the burning gas/air mixture below its auto-ignition temperature: consequently, the flame cannot survive. The heat is absorbed through channels (passages) designed into an element.

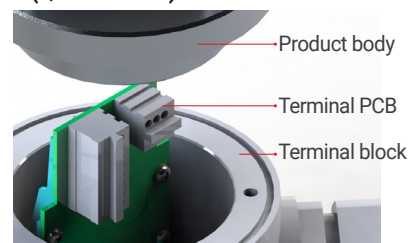
Customization

- Explosion proof cable gland attached type available(Standard type does not come with explosion proof cable gland)
- Cable entry size 3/4"NPT
- Explosion Proof Certification cable gland

Ordering Specification

QST50BT-Ex	5	24	RAGBW	IECEx
[Model number]	[Layer]	[Voltage]	[Color]	[Certificates]
QST50BT-Ex	1-1Layer 2-2Layers 3-3Layers 4-4Layers 5-5Layers	24-DC24V 110/230-AC110V-230V	R-Red A-Amber G-Green B-Blue W-White	IECEx ATEX KCs CCC(NEPSI)

Terminal Box Wiring Instructions (QST50BT-Ex)

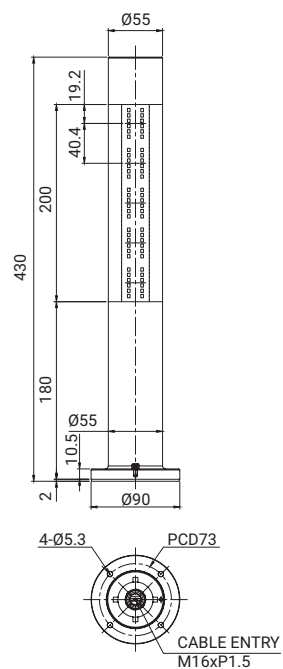


QST50-Ex Series

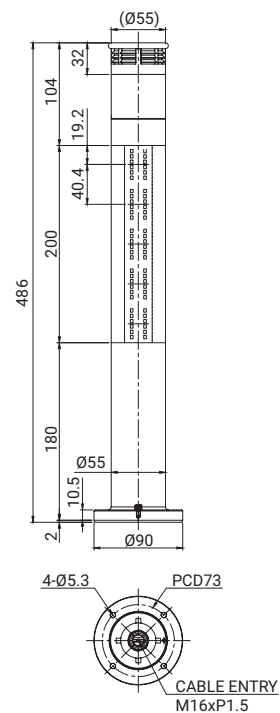
Technical Diagram

Units: mm

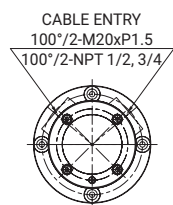
·QST50-Ex-5-DC/AC



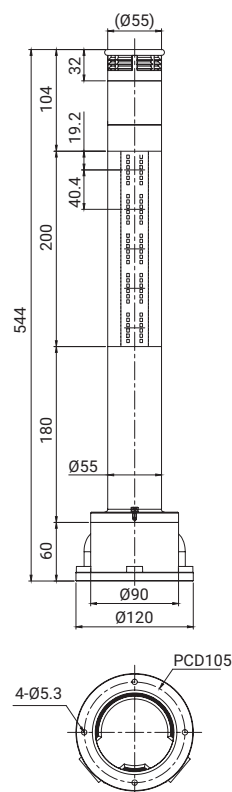
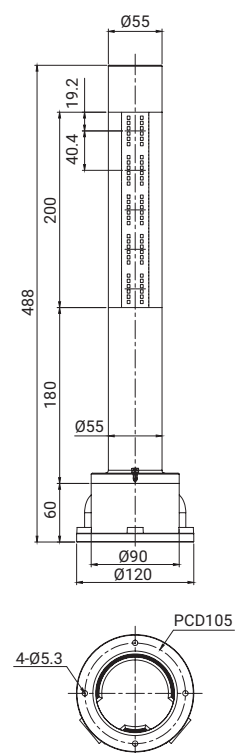
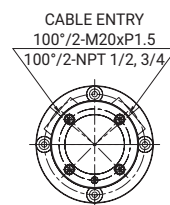
·QST50B-Ex-5-DC/AC



·QST50T-Ex-5-DC/AC



·QST50BT-Ex-5-DC/AC

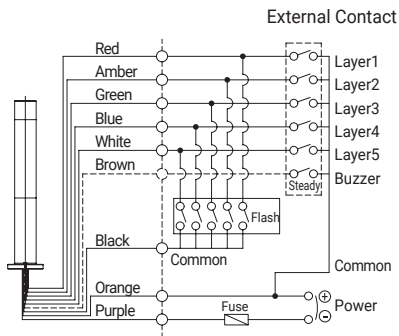


Wiring Instructions

- QST50-Ex Series can be wired with either External Contact or transistor.
- In case of wiring by transistor, please make sure if it is NPN type or PNP type. Please follow wiring instructions below.

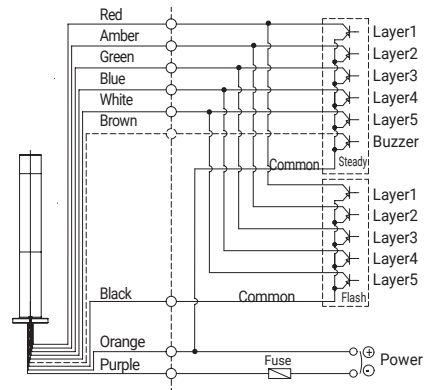
External Contact

DC
Steady/Flashing

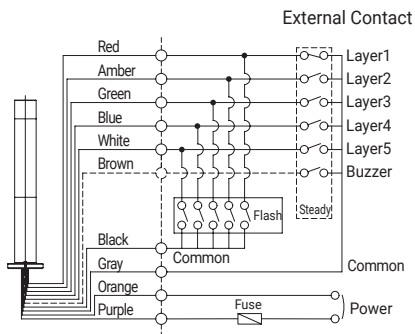


Transistor

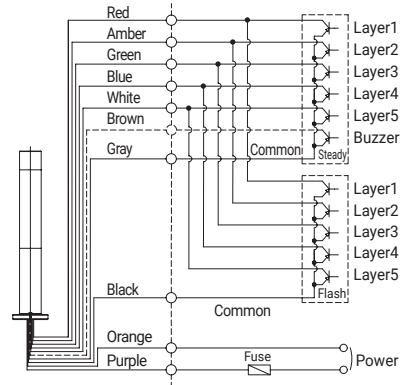
External transistor-PNP



AC
Steady/Flashing



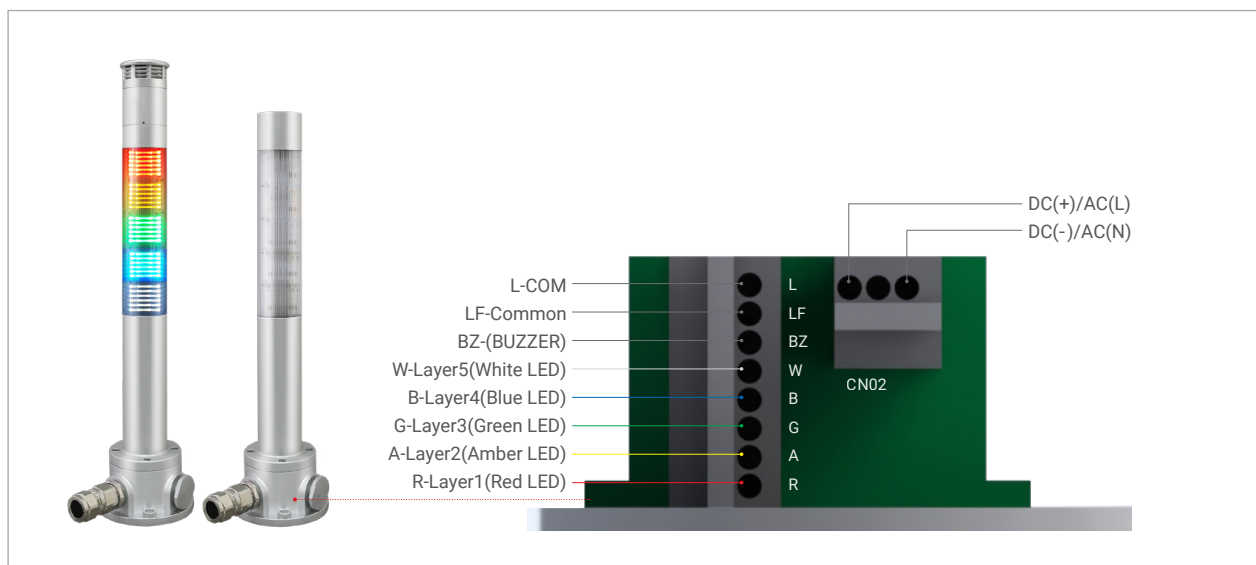
External transistor-PNP



QST50-Ex Series



Terminal Wiring Information



QLEX-SLM-650-EMG



PRODUCT SPECIFICATION

QLEX-SLM-650-EMG

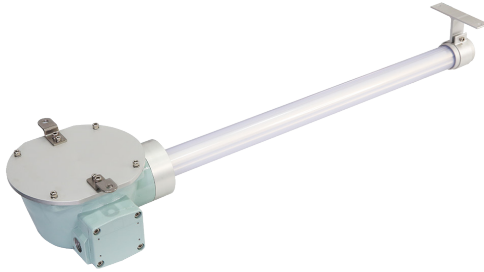
Materials Housing-Al, Upper cover-Al, Side cover-Al, Lens-PC, Bracket-Al, STS

Ambient operating temperature $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$

Protection rating Ex d IIC T6, IP66

Certificates KCs

Cable entry 1/2" NPT



QLEX-SLM-650-EMG

- AC powered type LED light that is operated by battery in case of abrupt power outage or emergency
- Rated AC power turns on Lighting as well as battery charging for emergency
- Explosion proof LED lighting luminaires designed for use in explosive gas environments with Ex d IIC rating
- Features special structure that allows to adjust light angle by turning the light tube
- Fully enclosed structure allows outdoor application as it provides protection against dirt and water
- Excellent visibility by emitting the LED light directly into user's eyesight
- Emergency battery hours: Max. 2.0HR (Battery capacity: 2,700mAh)
- Battery charge time: Min. 12.5hours (discharge to full charge, based on 25°C)

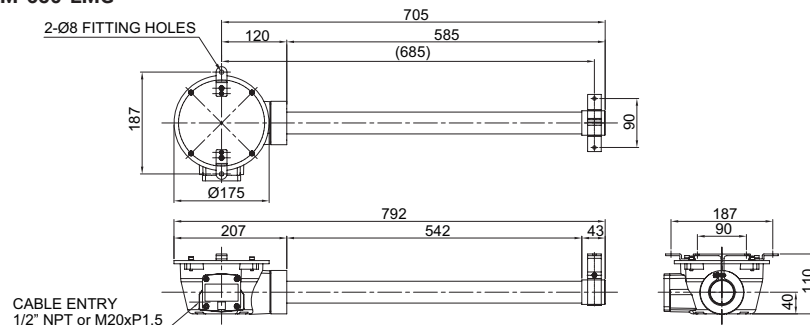
QLEX-SLM-650-EMG Explosion Proof LED Emergency Luminaires

Optics Specifications	
Model	QLEX-SLM-650-EMG
Lens color	Translucent
Light color	Cooldaylight
Color temperature	6,000-7,000K
Luminous flux	1,800lm
Illumination(at 1m)	700Lux
Specifications	
Model	QLEX-SLM-650-EMG
Voltage	AC110V-230V
Range for operation voltage	AC100V-240V
Power consumption	Max.33W
Insulation resistance	Min. 100MΩ(500V DC mega ohm meter)
Withstanding voltage	AC : 1,500VAC, 60Hz, 1 minute
Protection rating	IP66
Materials	Housing-Al, Upper cover-Al, Side cover-Al, Lens-PC, Bracket-Al, STS
Certifications	
Weight(Approx.)	4.50Kg

Technical Diagram

Units: mm

QLEX-SLM-650-EMG



Ordering Specification

QLEX-SLM	-	650-EMG	-	110/230	-	KCs
[Model number]		[Product length]		[Voltage]		[Certificates]
QLEX-SLM		650-650mm		110/230-AC110V-230V		KCs

Cautions in use

- Contact structure of an explosion proof product must be a qualified part we provide. Please do not disassemble, assemble, modify or repair arbitrarily.
- Explosion proof cable gland attached type available (Standard type does not provide explosion proof cable gland)
- Cable entry 1/2" NPT

Explosion proof LED Signal Beacon and Electronic Sounder Max.123dB

QN Series

Explosion proof LED signal beacon & electronic sounder with convenient selection of steady, flashing, strobe, and simulated revolving operation



QNVS / QNVS-H

PRODUCT SPECIFICATION

QNVS | QNVS-H
QNHS | QNHS-H

Materials Housing-Al, Horn housing-PC, Lens-Tempered glass, Filter-PC

Ambient operating temperature

-40°C ≤ Tamb ≤ +70°C (T5), -40°C ≤ Tamb ≤ +55°C (T6)

Sound volume

QNVS/QNHS-Max.118dB at 1m,

QNVS-H/QNHS-H-Max.123dB at 1m(Volume adjustable)

Explosion protection rating

IECEX - Ex db IIC T6 Gb, IP66

Ex db IIC T5 Gb, IP66

ATEX - Ex db IIC T6 Gb, IP66

Ex db IIC T5 Gb, IP66

NEPSI, CCC - Ex db IIC T6 Gb, IP66

KCs - Ex db IIC T6, IP66

Certificates ATEX, IECEX, NEPSI, CCC, KCs

Housing standard color Red

Cable entry 1/2" NPT

Flashing rate(LF type) 60-80 flashes/min.

Strobe rate(LS type) 70-80 flashes/min.

Simulated revolving rate(LR type) 120-140RPM

- Multiple lighting effects such as LED steady, flashing, strobe, and simulated revolving
- Features excellent shock and vibration resistance, maintenance significantly reduced with long-lasting LED light source
- A variety of sound selections between warning sounds, alarm sounds, melodies and voice messages to fit your sophisticated application needs
- Features superior durability with aluminum housing
- Fully enclosed structure with protection rating of IP66

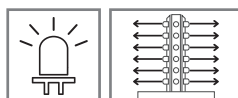
Instruction for Light Function Switch

ON=1/OFF=0

Can select 4 different kinds of light functions with switch configuration

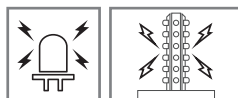
No.	1	2	Operation
0	0	0	LED Steady
1	0	1	LED Flashing
2	1	0	LED Strobe
3	1	1	LED Simulated revolving flashing

Operation



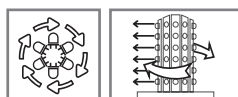
LED Steady/Flashing

Repeat operation of LED light on/off



LED Strobe

Short LED steady/flashing. Creates a xenon flashing effect by providing maximum electric current



LED Simulated Revolving Flashing

LED flashes steadily around the cylindrical LED filaments which makes a simulated revolving effect

Customization

- Explosion proof cable gland attached type available(Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20x1.5, M25x1.5) available

QNVS/QNVS-H Explosion Proof LED Signal Beacon Light and Electronic Sounder, Max.123dB



Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QNVS	DC12V -24V	Max. 1.4A	· WS-5 Warning sounds: Max.118dB · WP-5 Special warning sounds: Max.118dB · WM-5 Melodies: Max.118dB · WA-5 Alarms: Max.116dB · WV-5 Customizable voices: 110-115dB	IECEX	7.50Kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	AC110V -230V	Max. 390mA		ATEX	7.65Kg	
QNVS-H	DC12V -24V	Max. 3.4A	· WS-5 Warning sounds: Max.123dB · WP-5 Special warning sounds: Max.123dB · WM-5 Melodies: Max.123dB · WA-5 Alarms: Max.121dB · WV-5 Customizable voices: 115-120dB	KCs	7.50Kg	
	AC110V -230V	Max. 560mA		CCC	7.65Kg	

※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.



QNHS/QNHS-H Explosion Proof LED Signal Beacon Light and Electronic Sounder, Max.123dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QNHS	DC12V -24V	Max. 1.4A	· WS-5 Warning sounds: Max.118dB · WP-5 Special warning sounds: Max.118dB · WM-5 Melodies: Max.118dB		7.50Kg	<div>● R-Red</div> <div>● A-Amber</div> <div>● G-Green</div> <div>● B-Blue</div>
	AC110V -230V	Max. 390mA	· WA-5 Alarms: Max.116dB · WV-5 Customizable voices: 110-115dB		7.65Kg	
QNHS-H	DC12V -24V	Max. 3.4A	· WS-5 Warning sounds: Max.123dB · WP-5 Special warning sounds: Max.123dB · WM-5 Melodies: Max.123dB		7.50Kg	
	AC110V -230V	Max. 560mA	· WA-5 Alarms: Max.121dB · WV-5 Customizable voices: 115-120dB		7.65Kg	



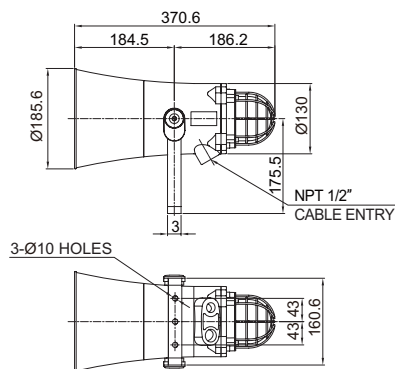
QNHS / QNHS-H

※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

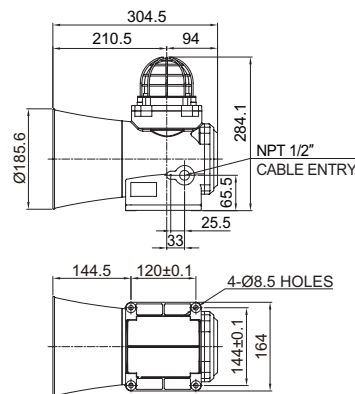
※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Technical Diagram Units: mm

·QNVS / QNVS-H

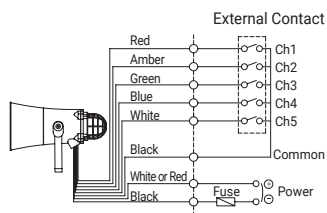


·QNHS / QNHS-H

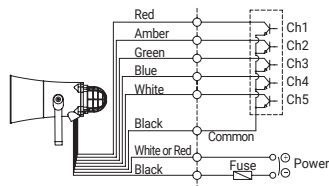


Wiring Instructions

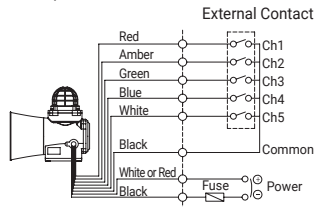
·QNVS / QNVS-H DC/AC



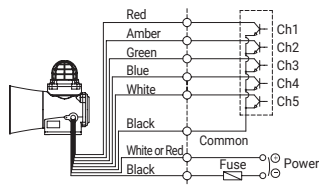
External transistor-NPN



·QNHS / QNHS-H DC/AC



External transistor-NPN



Ordering Specification

QNVS	WA	12/24	R	LC	IECEx
[Model number]	[Sound]	[Voltage]	[Color]	[Sound selection]	[Certificates]
QNVS	WS-Warning sounds	12/24	● R-Red	None-Built-in switch	IECEx
QNVS-H	WP-Special warning sounds	-DC12V-24V	● A-Amber	LC-External contact	ATEX
QNHS	WM-Melodies	110/230	● G-Green		KCs
QNHS-H	WA-Alarms	-AC110V-230V	● B-Blue		CCC(NPSI)
	WV-Customizable voices				



QN / QN-H

PRODUCT SPECIFICATION

QN | QN-H

Materials Housing-Al, Horn housing-PC

Ambient operating temperature

-40°C ≤ Tamb ≤ +70°C (T5), -40°C ≤ Tamb ≤ +55°C (T6)

Sound volume QN-Max.118dB at 1m, QN-H-Max.123dB at 1m

Explosion protection rating

IECEX - Ex db IIC T6 Gb, IP66

Ex db IIC T5 Gb, IP66

ATEX - Ex II 2G Ex db IIC T6 Gb, IP66

Ex II 2G Ex db IIC T5 Gb, IP66

NEPSI, CCC - Ex db IIC T6 Gb, IP66

KCs - Ex db IIC T6, IP66

Certificates ATEX, IECEX, NEPSI, CCC, KCs

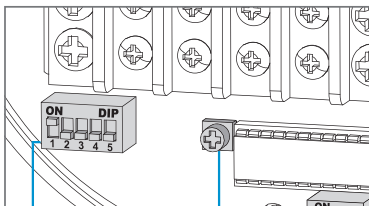
Housing standard color Red

Cable entry 1/2" NPT

- Explosion proof alarm horn sounder
- Various sound tones can be selected ; warning sound, alarm, melody
- Aluminum housing provides excellent durability
- Terminal for power wiring located inside of the housing

Sound Selection Instructions and Wiring

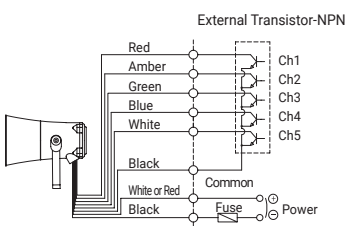
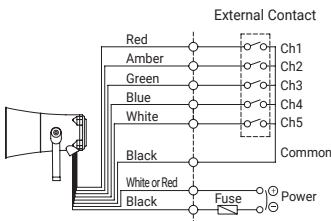
- Standard type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Ch1 | Ch2 | Ch3 | Ch4 | Ch5
Volume

- Customization : External contact(LC)
In case of select sound between external contact and transistors, sound line is threading as customization when product released(LC).

QN / QN-H DC/AC



QN Explosion Proof Electronic Sounder, Max.123dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QN	DC12V-24V	Max. 1.15A	<ul style="list-style-type: none"> WS-5 Warning sounds: Max.118dB WP-5 Special warning sounds: Max.118dB WM-5 Melodies: Max.118dB 	IECEX	5.15Kg
	AC110V-230V	Max. 300mA	<ul style="list-style-type: none"> WA-5 Alarms: Max.116dB WV-5 Customizable voices: 110-115dB 	ATEX	5.17Kg
QN-H	DC12V-24V	Max. 2.9A	<ul style="list-style-type: none"> WS-5 Warning sounds: Max.123dB WP-5 Special warning sounds: Max.123dB WM-5 Melodies: Max.123dB 	CCC	5.15Kg
	AC110V-230V	Max. 470mA	<ul style="list-style-type: none"> WA-5 Alarms: Max.121dB WV-5 Customizable voices: 115-120dB 	NEPSI	5.17Kg

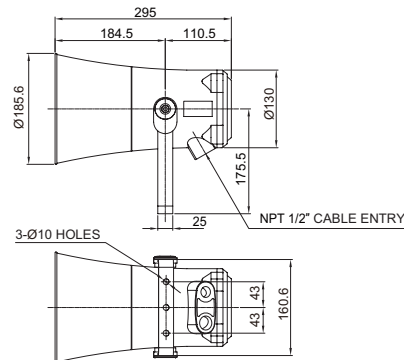
※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Technical Diagram

Units: mm

QN / QN-H



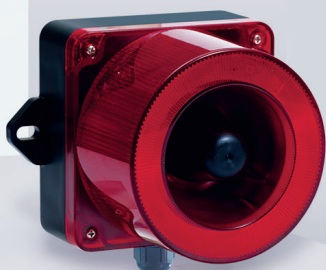
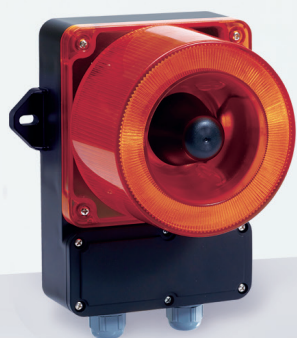
Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20 x 1.5, M25 x 1.5) available

Ordering Specification

QN	WM	12/24	LC	IECEX
[Model number]	[Sound]	[Voltage]	[sound selection]	[Certificates]
QN	WS-Warning sounds	12/24-DC12V-24V	None-Standard type	IECEX
QN-H	WP-Special warning sounds	110/230-AC110V-230V	LC Type-Uses external contact	ATEX
	WM-Melodies			KCs
	WA-Alarms			CCC(NEPSI)
	WV-Customizable voices			

Telephone Initiated



References

P. 160

Product introductions

P. 161

Product Specification List for Telephone Initiated Type



Model number	QWCD35-TI	QWCD50-TI	QWH35-TI	QWH50-TI
Voltage	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V
Dimension (mm)	Outdia	□196 X 179	□229 x 222	□196 X 179
	Height			□229 x 222
	Depth	126	163	126
Materials	Horn-PC Housing-PC+ABS	Horn-PC Housing-PC+ABS	Horn-PC+ABS Housing-PC+ABS	Horn-PC+ABS Housing-PC+ABS
Light source & Operation	LED Strobe	●	●	
Sound pattern/ dB	31 signal sounds	Max.115dB at 1m	Max.123dB at 1m	Max.115dB at 1m
Mounting structure	Wall mount	Wall mount	Wall mount	Wall mount
Cable entry	PG13.5	PG13.5	PG13.5	PG13.5
Protection rating	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor use	Indoor/Outdoor use	Indoor/Outdoor use
Certificates				
Customization	Cold resistance type	Cold resistance type	Cold resistance type	Cold resistance type
Transistor	NPN type	NPN type	NPN type	NPN type
Page	P161-163	P161-163	P164-165	P164-165



Model number	SESA-TI	SEA-TI	SNE-TI	SNES-S-TI	SPNA-TI
Voltage	DC24V AC120V, AC230V	DC24V AC120V, AC230V	DC12V, DC24V AC120V, AC230V	DC12V, DC24V AC120V, AC230V	DC24V AC120V, AC230V
Dimension (mm)	Outdia	Ø167(Cage)	Ø152(Cage)	Ø152(Cage)	Ø134(Horn)
	Height	333	287	238	159
	Depth	327(Length)	172(Length)	182.5(Length)	327(Length)
Materials	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Horn-STS316L Housing-Al
Light source & Operation	Bulb Revolving	●	●		
	LED Revolving	●	●		
	LED Steady/ Flashing	●	●		
	LED Strobe				
	LED Simulated revolving				
	Xenon Strobe	●	●	●	
Sound pattern/ dB	1 Tone Buzzer	-		Max.105dB at 1m	-
	5 signal sounds	Max.113dB at 1m		-	Max.113dB at 1m
	Bell				
Voice signal	110-115dB at 1m			-	110-115dB at 1m
Mounting structure	Self mount	Self mount	Self mount	Self mount	Self mount
Cable entry	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Protection rating	IP66	IP66	IP66	IP66	IP66
Mounting location	Indoor/Outdoor Use	Indoor/Outdoor use	Indoor/Outdoor use	Indoor/Outdoor use	Indoor/Outdoor use
Usage area	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2
Certificates	IECEx, ATEX	IECEx, ATEX	IECEx, ATEX	IECEx, ATEX	IECEx, ATEX
Customization	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry M20 x 1.5	Explosion proof cable gland, 2 ways cable entries, Cable entry 3/4"NPT, M20 x 1.5, M25 x 1.5
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QWCD-TI Series

A new concept of using the horn cover as a light globe

PRODUCT SPECIFICATION

QWCD35-TI | QWCD50-TI

Materials Horn-PC, Housing-PC+ABS

Ambient operating temperature

-30°C to +50°C (Standard type)

-50°C to +50°C (Low temperature type only DC)

Protection rating IP66

Flashing rate 60-80 flashes/min

Compliant with RoHS directive

- Telephone Initiated Signal beacon triggers built-in alarm sound that is activated by 25Hz telephone ring signal
- Highly noticeable telephone alarm in noisy environment
- Telephone line(2 LINE) is connected to PSTN telephone line
- Easy device customization with built in sound selection function, volume adjustment function and an SD Card slot for user inputted tones
- 31 available tones that can be selected for a variety of environments
- 31 pre-recorded tones available via binary input
- Suitable for use in environments that require a tight seal and superior dust protection rated IP66
- Easy wiring through external terminal block
- Rated power when telephone lines are not in use: 45VDC - 55VDC
- Rated power when telephone rings : 95VDC - 130VDC

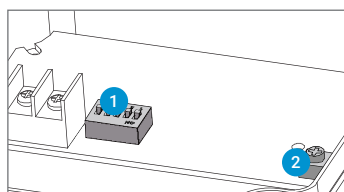


QWCD-TI Series

Qlight's exclusive innovative design the horn cover emits light!

- Telephone Initiated Signal beacon triggers built-in alarm sound that is activated by 25Hz telephone ring signal
- By using the horn cover as a light globe, the size of the product has been reduced significantly
- The color of light can be selected from red, yellow, green, or blue
- Includes seven different playback functions; one function is the continuous playback function which provides constant message notification
- Can play special alarm sounds of built-in 31 sounds depending on environment, and supports binary input method
- By making the horn cover with polycarbonate (PC) material, the product has excellent durability and weather resistance
- Can be used for heavy-duty, ship, or outdoor use which requires waterproof, dustproof structure(IP66).

Built-in sound type



- 1 Channel selection switch
- 2 Volume

The input method of built-in sound type

	1	2	3	4	5
ON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No.	1	2	3	4	5
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	1	0
:	:	:	:	:	:
31	1	1	1	1	1

Built-in sound type model supports binary input mode which provides a selection of 31 different input combinations for five kinds of sounds.

You can only select 2 numbers with 1 switch; "0", "1". With 5 switches you can have 31 combinations. Selecting one sound from 5 switches is the binary input method.

QWCD-TI Series

Easy wiring with 2 cable entries terminal box type



QWCD35-TI Series



QWCD50-TI Series

QWCD35-TI LED Strobe Light & Alarm Sounder

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD35-TI Terminal box equipped type	DC12V-24V	Max. 1.35A	·Binary Input: 31Ch ·Warning sounds : Max.115dB (Based on Ch31)	-	1.30kg	● R-Red ● A-Amber ● G-Green ● B-Blue
Built-in sound type	AC110V-220V	Max. 350mA			1.35kg	

※ DC type model has a free-voltage range of 10V-30V.

※ AC type model has a free-voltage range of 100V-240V.

QWCD50-TI LED Strobe Light & Alarm Sounder

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
QWCD50-TI Terminal box equipped type	DC12V-24V	Max. 4.65A	·Binary Input: 31Ch ·Warning sounds : Max.123dB (Based on Ch16)	-	3.10kg	● R-Red ● A-Amber ● G-Green ● B-Blue
Built-in sound type	AC110V-220V	Max. 900mA			3.40kg	

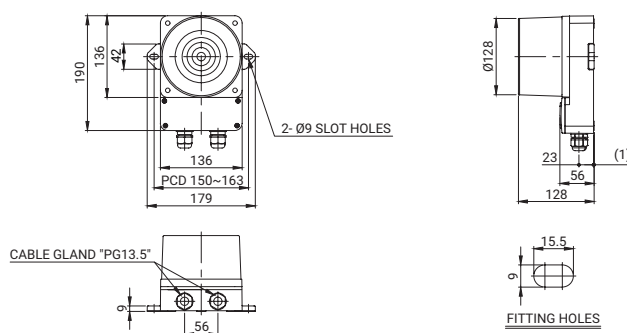
※ DC type model has a free-voltage range of 10V-30V.

※ AC type model has a free-voltage range of 100V-240V.

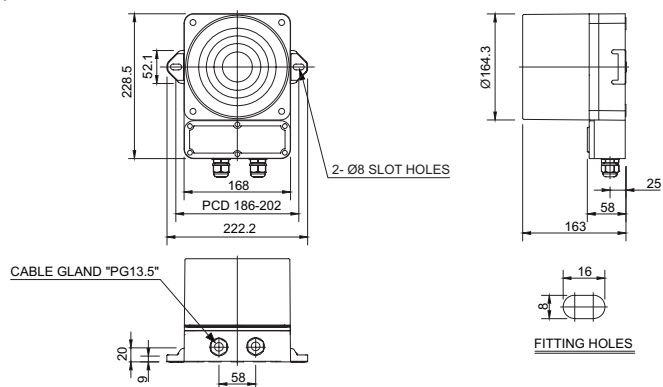
Technical Diagram

Units: mm

·QWCD35-TI



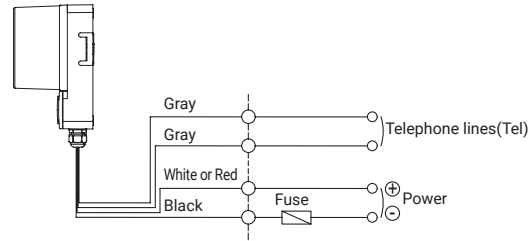
·QWCD50-TI





Sound Selection Instructions and Wiring

·QWCD35-TI / QWCD50-TI - DC/AC



- Please wire the unit in accordance with a wiring diagram below as power line and telephone line are wired externally.
- External power line - UL1015 AWG18(0.75sq) x 2C 400mm
- External telephone lines - UL1007 AWG22(0.3sq) 400mm
- Binary input 31 sound tones output
- ※ Please refer to [Sound pattern and combination for multifunctional product] on this catalogue for channel input setting
(Wiring instruction is replaced to channel selection switch)

Customization · Cold-resistance type(DC type only)

Ordering Specification

QWCD35	-	110/220	-	R	-	TI
[Model number]		[Voltage]		[Color]		[Telephone Initiated]
QWCD35 QWCD50		12/24-DC12V-24V 110/220-AC110V-220V		● R-Red ● A-Amber ● G-Green ● B-Blue		TI-Telephone Initiated

QWH-TI Series

Wall mount electronic sounder that offers 31 pre-recorded warning sounds



• Binary input offers 31 sound

PRODUCT SPECIFICATION

QWH35-TI | QWH50-TI

Materials Horn-PC+ABS, Housing-PC+ABS

Ambient operating temperature

-30°C to +50°C (Standard type)

-50°C to +50°C (Low temperature type only DC)

Cable entry PG 13.5

Protection rating IP66

Compliant with RoHS directive

- Signal fit for the specific environment and condition.
- Telephone Initiated alarm horn sounder triggers built-in alarm sound that is activated by 25Hz telephone ring signal
- Highly noticeable telephone alarm in noisy environment
- Telephone line(2 LINE) is connected to PSTN telephone line
- Easy device customization with built in sound selection function, volume adjustment function and an SD Card slot for user inputted tones.
- 31 available tones that can be selected for a variety of environments
- 31 pre-recorded tones available via binary input
- Suitable for use in environments that require a tight seal and superior dust protection rated IP66
- Easy wiring through external terminal box
- Rated power when telephone lines are not in use: 45VDC - 55VDC
- Rated power when telephone rings : 95VDC - 130VDC

Sound Selection and Volume Adjustment Instructions

QWH Series has control switches inside the unit for sound selection and volume adjustment.

QWH-TI Series Product Category

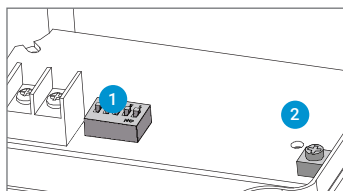
QWH35-TI	Standard pre-recorded sound type
QWH50-TI	Standard pre-recorded sound type, high volume output

The input method of built-in sound type

	1	2	3	4	5
ON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No.	1	2	3	4	5
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	1	0
:	:	:	:	:	:
31	1	1	1	1	1

Select from 31 pre-recorded output sound options by using a combination of the 5 channel input switches. Selecting one sound by combining 5 switches is binary input method. The binary input method allows you to express each of the 31 alarm sound signals with a "0" or "1" by switching the 5 channels on and off as shown in the table.

Built-in sound type



- 1 Sound channel selection switch
- 2 Volume dial

QWH35-TI Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH35-TI Terminal box equipped type	DC12V-24V	Max. 1.15A	·Binary Input: 31Ch ·Warning sounds: Max.115dB (Based on Ch31)	-	1.10kg
Built-in sound type	AC110V-220V	Max. 300mA			

QWH50-TI Wall Mount Electronic Sounder with Pre-Recorded Special Warning Sound

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
QWH50-TI Terminal box equipped type	DC12V-24V	Max. 3.6A	·Binary Input: 31Ch ·Warning sounds: Max.123dB (Based on Ch16)	-	3.00kg
Built-in sound type	AC110V-220V	Max. 730mA			

※ DC type model has a free-voltage range of 10V-30V.

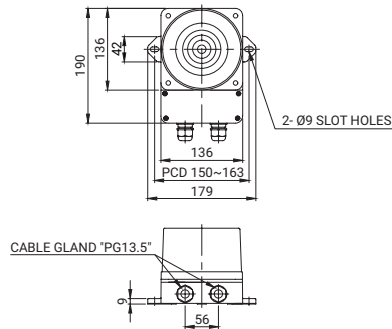
※ AC type model has a free-voltage range of 100V-240V.



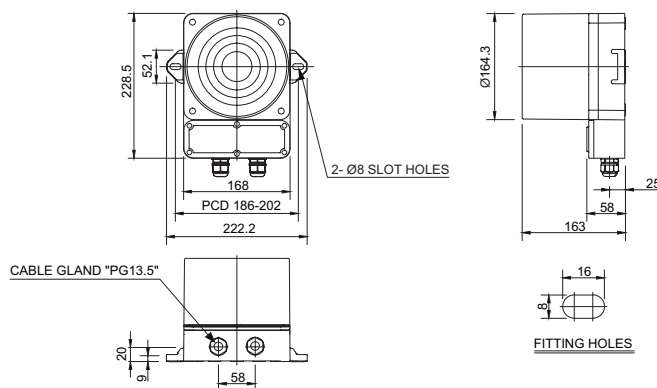
Technical Diagram

Units: mm

·QWH35-TI



·QWH50-TI



Easy wiring with 2 cable entries terminal box type



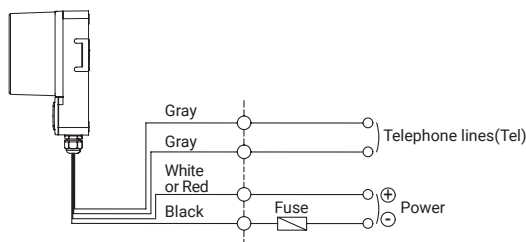
QWH35-TI
(Max.115dB)



QWH50-TI
(Max.123dB)

Sound Selection Instructions and Wiring

·QWH35-TI / QWH50-TI - DC/AC



- Please wire the unit in accordance with a wiring diagram below as power line and telephone line are wired externally.
- External power line - UL1015 AWG18(0.75sq) x 2C 400mm
- External telephone lines - UL1007 AWG22(0.3sq) 400mm
- Binary input 31 sound tones output
- ※ Please refer to [Sound pattern and combination for multifunctional product] on this catalogue for channel input setting(Wiring instruction is replaced to channel selection switch)

Ordering Specification

QWH35	-	110/220	-	TI
[Model number]		[Voltage]		[Telephone Initiated]
QWH35		12/24-DC12V-24V		TI-Telephone Initiated
QWH50		110/220-AC110V-220V		

Customization

- Cold-resistance type(DC type only)

SESA-TI Series

Explosion proof Signal Beacon and Electronic Sounder combinations



SESALR-TI



SESAL-TI

PRODUCT SPECIFICATION

SESALR-TI | SESAL-TI
SESAS-TI | SESA-TI

Materials Lens-Tempered glass, Filter-PC, Housing-AL, Protection cage-STS316L, Reflector-PC, Reflector-Heat resistant ABS

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

Protection rating

IECEX - Ex db IIC T6 Gb, IP66


ATEX - Ex II 2G Ex db IIC T6 Gb, IP66

Sound volume Max.118dB at 1m(Volume adjustable)

Housing standard color MUNSSELL No. 7.5BG 7/2


- Large explosion proof Signal Beacon and Electronic Sounder combinations
- Telephone Initiated signal beacon & sounder triggers built-in alarm sound that is activated by 25Hz telephone ring signal
- Highly noticeable telephone alarm in noisy environment
- Telephone line(2 LINE) is connected to PSTN telephone line
- A variety of light sources and sound selections to fit your sophisticated application needs
- Aluminum housing provides excellent durability
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model
- Rated power when telephone lines are not in use: 45VDC - 55VDC
- Rated power when telephone rings : 95VDC - 130VDC

SESALR-TI LED Revolving Signal Beacon & Electronic Sounder Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SESALR-TI	DC24V	1.16A	·WS-5 Warning sounds: Max.118dB		8.31kg	● R-Red
	AC120V	300mA	·WP-5 Special warning sounds: Max.118dB		7.92kg	● A-Amber
			·WM-5 Melodies: Max.118dB		7.92kg	● G-Green
			·WA-5 Alarms: Max.116dB			● B-Blue
	AC230V	175mA	·WV-5 Customizable voices: 110-115dB		7.92kg	

- Excellent omni-directional visibility with LED light collecting system and special multifaceted reflector
- Revolving speed: 120-140RPM

SESAL-TI LED Steady/Flashing Signal Light and Electric Horn Combination

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight	Color
SESAL-TI	DC24V	1.4A	·WS-5 Warning sounds: Max.118dB		8.42kg	● R-Red
	AC120V	320mA	·WP-5 Special warning sounds: Max.118dB		9.02kg	● A-Amber
			·WM-5 Melodies: Max.118dB		9.02kg	● G-Green
			·WA-5 Alarms: Max.116dB			● B-Blue
	AC230V	170mA	·WV-5 Customizable voices: 110-115dB		9.02kg	

- Long-lasting high intensity LED light source, Suitable for applications where bulb replacement is hard
- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch)
- ※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.



SESAS-TI Xenon Strobe Signal Light and Electric Horn Combination

Model number	Voltage	Current	Xenon lamp			Certificates	Weight	Color	Color
			Spec	Standard	Parts no				
SESAS-TI	DC24V	1.4A				·WS-5 Warning sounds : Max.118dB	8.45kg		
	AC120V	300mA	200V -550V	EUB0641 -1A(G) U type	48	·WP-5 Special warning sounds: Max.118dB ·WM-5 Melodies : Max.118dB ·WA-5 Alarms: Max.116dB ·WV-5 Customizable voices : 110-115dB	8.86kg	● R-Red ● A-Amber ● G-Green ● B-Blue	
	AC230V	190mA					8.86kg		

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong strobe signal diffusion
- Flashing rate: 60-80 flashes/min

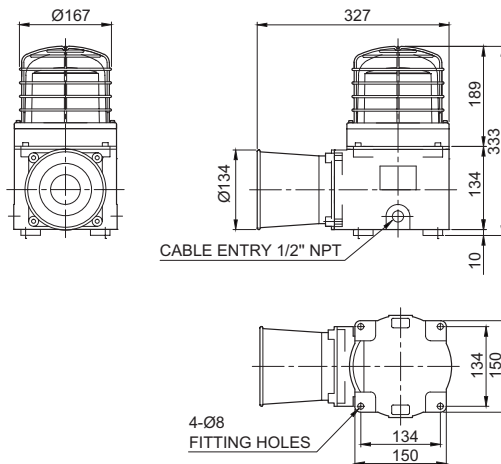
SESA-TI Bulb Revolving Signal Beacon and Electronic Sounder Combination

Model number	Voltage	Current	Bulb			Certificates	Weight	Color	Color
			Spec	Standard	Parts no				
SESA-TI	DC24V	1.45A	24V15W	G23 15S	18	·WS-5 Warning sounds : Max.118dB	8.57kg		
	AC120V	370mA	12V15W	G23 15S	17	·WP-5 Special warning sounds: Max.118dB ·WM-5 Melodies : Max.118dB ·WA-5 Alarms: Max.116dB ·WV-5 Customizable voices : 110-115dB	9.27kg	● R-Red ● A-Amber ● G-Green ● B-Blue	
	AC230V	190mA	12V15W	G23 15S	17		9.27kg		

- Excellent diffusion effect with special multifaceted reflector
- Revolving speed: 120-140RPM
- ※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Technical Diagram

Units: mm



Ordering Specification

SESAS	-	WS	-	230	-	R	-	TI
[Model number]		[Sound]		[Voltage]		[Color]		[Telephone Initiated]
SESALR		WS-Warning sounds		24-DC24V		● R-Red		TI-Telephone Initiated
SESAL		WP-Special warning sounds		120-AC120V		● A-Amber		
SESAS		WM-Melodies		230-AC230V		● G-Green		
SESA		WA-Alarms				● B-Blue		
		WV-Customizable voices						

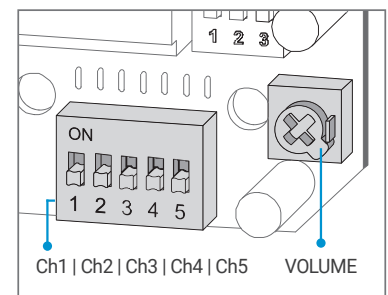


SESAS-TI



SESA-TI

- Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available

SEA-TI Series



SEA-LR-TI



SEA-L-TI

PRODUCT SPECIFICATION

SEALR-TI | SEAL-TI
SEAS-TI | SEA-TI

Materials Lens-Tempered glass, Filter-PC, Housing-Al, Protection cage-STSS316L, Reflector-PC, Reflector-Heat resistant ABS

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

Protection rating

IECEX - Ex db IIC T6 Gb, IP66

ATEX - Ex II 2G Ex db IIC T6 Gb, IP66

Certificates IECEX, ATEX

Housing standard color MUNSELL No. 7.5BG 7/2

Cable entry 1/2" NPT

- Large explosion proof Signal Beacons with excellent visibility for long distance
- Telephone Initiated Signal beacon triggers bright lighting that is activated by 25Hz Telephone Ring Signal
- Telephone line(2 LINE) is connected to PSTN telephone line
- A variety of light source selections from bulb, LED, and xenon lamp
- Aluminum housing provides excellent durability
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model
- Rated power when telephone lines are not in use: 45VDC - 55VDC
- Rated power when telephone rings : 95VDC - 130VDC



SEA-LR-TI LED Revolving Signal Beacon

Model number	Voltage	Current	Certificates	Weight	Color
SEA-LR-TI	DC24V	75mA		5.33kg	● R-Red
	AC120V	75mA		5.74kg	● A-Amber
	AC230V	30mA		5.74kg	● G-Green ● B-Blue

- Excellent omni-directional visibility with LED light collecting system and special multifaceted reflector
- Revolving speed: 120-140RPM



SEA-L-TI LED Steady/Flashing Signal Beacon

Model number	Voltage	Current	Certificates	Weight	Color
SEA-L-TI	DC24V	110mA		4.87kg	● R-Red
	AC120V	125mA		5.25kg	● A-Amber
	AC230V	50mA		5.25kg	● G-Green ● B-Blue

- Long-lasting high intensity LED light source, Suitable for applications where bulb replacement is hard
- Built-in steady/flashing selection switch
- Flashing rate: 60-80 flashes/min

Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available



SEAS-TI Xenon Strobe Signal Beacon

Model number	Voltage	Current	Xenon lamp			Certificates	Weight	Color
			Spec	Standard	Parts no			
SEAS-TI	DC24V	490mA	200V -550V	EUB0641 -1A(G) U type	48		5.39kg	● R-Red
	AC120V	115mA					5.35kg	● A-Amber
	AC230V	110mA					5.35kg	● G-Green ● B-Blue

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong strobe signal diffusion
- Flashing rate: 60-80 flashes/min



SEAS-TI

SEA-TI Bulb Revolving Signal Beacon

Model number	Voltage	Current	Bulb			Certificates	Weight	Color
			Spec	Standard	Parts no			
SEA-TI	DC24V	1.05A	24V15W	G23 15S	18		5.36kg	● R-Red
	AC120V	190mA	12V15W	G23 15S	17		5.75kg	● A-Amber
	AC230V	90mA	12V15W	G23 15S	17		5.75kg	● G-Green ● B-Blue

- Excellent diffusion effect with special multifaceted reflector
- Revolving speed: 120-140RPM

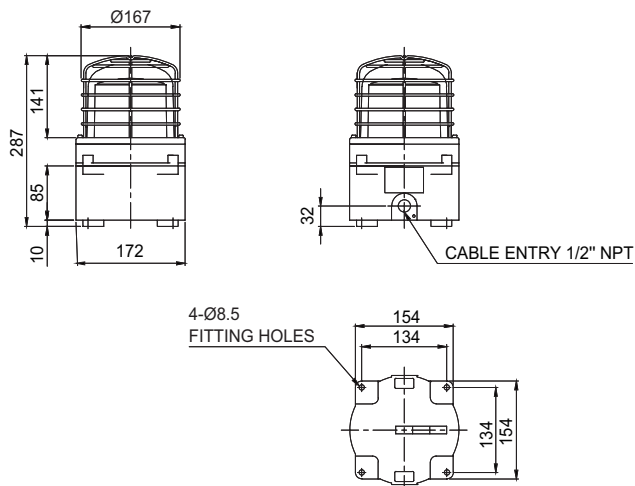


SEA-TI

Technical Diagram

Units: mm

· SEALR-TI / SEAL-TI / SEAS-TI / SEA-TI



Ordering Specification

SEA	-	230	-	R	-	TI
[Model number]		[Voltage]		[Color]		[Telephone Initiated]
SEALR		24-DC24V		● R-Red		TI-Telephone Initiated
SEAL		120-AC120V		● A-Amber		
SEAS		230-AC230V		● G-Green		
SEA				● B-Blue		

SNE-TI Series



SNELR-TI



SNEL-TI

PRODUCT SPECIFICATION

SNELR-TI | SNEL-TI
SNE-S-TI | SNE-TI

Materials Lens-Tempered glass, Filter-PC, Housing-Al, Protection cage-STSS316L, Reflector-PC, Reflector-Heat resistant ABS, Bracket-STSS316L

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

Protection rating

IECEX - Ex db IIC T6 Gb,

Ex db op is IIC T6 Gb, IP66

ATEX - Ex II 2G Ex db IIC T6 Gb

Ex II 2G Ex db op is IIC T6 Gb, IP66

Certificates IECEX, ATEX

Cable entry 1/2" NPT

Housing standard color MUNSELL No. 7.5BG 7/2

- Light weight and compact explosion proof warning lights with a variety of light source selections from bulb, LED, and xenon lamp
- Telephone Initiated Signal beacon triggers lighting that is activated by 25Hz telephone ring signal
- Highly noticeable Telephone alarm in noisy environment
- Telephone line(2 LINE) is connected to PSTN telephone line
- A variety of light source selections from bulb, LED, and xenon lamp
- Aluminum housing provides excellent durability
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model
- Rated power when telephone lines are not in use: 45VDC - 55VDC
- Rated power when telephone rings : 95VDC - 130VDC

SNELR-TI LED Revolving Signal Beacon

Model number	Voltage	Current	Certificates	Weight	Color
SNELR-TI	DC12V	170mA		3.15kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	120mA		3.15kg	
	AC120V	45mA		3.85kg	
	AC230V	40mA		3.85kg	

- Excellent omni-directional visibility with LED light collecting system and special multifaceted reflector
- Revolving speed: 120-140RPM


SNEL-TI LED Steady/Flashing Signal Beacon

Model number	Voltage	Current	Certificates	Weight	Color
SNEL-TI	DC12V	150mA		3.65kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	90mA		3.65kg	
	AC120V	65mA		4.30kg	
	AC230V	25mA		4.30kg	

- Long-lasting high intensity LED light source, Suitable for applications where bulb replacement is hard
- Built-in steady/flashing selection switch
- Flashing rate: 60-80 flashes/min




SNE-S-TI Xenon Strobe Signal Beacon

Model number	Voltage	Current	Xenon lamp			Certificates	Weight	Color
			Spec	Standard	Parts no			
SNE-S-TI	DC12V	480mA	200V -350V	BGA2120 -BBC I type	47		3.60kg	● R-Red
	DC24V	300mA					3.60kg	● A-Amber
	AC120V	100mA					4.25kg	● G-Green
	AC230V	80mA					4.25kg	● B-Blue

- Lamp connector fastening structure allows for convenient lamp replacement
- Excellent long-distance visibility with strong strobe signal diffusion
- Flashing rate: 60-80 flashes/min

SNE-TI Bulb Revolving Signal Beacon

Model number	Voltage	Current	Bulb			Certificates	Weight	Color
			Spec	Standard	Parts no			
SNE-TI	DC12V	1.39A	12V15W	G23 15S	17		3.25kg	● R-Red
	DC24V	800mA	24V15W	G23 15S	18		3.25kg	● A-Amber
	AC120V	180mA	12V15W	G23 15S	17		3.95kg	● G-Green
	AC230V	95mA	12V15W	G23 15S	17		3.95kg	● B-Blue

- Excellent diffusion effect with special multifaceted reflector
- Revolving speed: 120-140RPM



SNE-S-TI

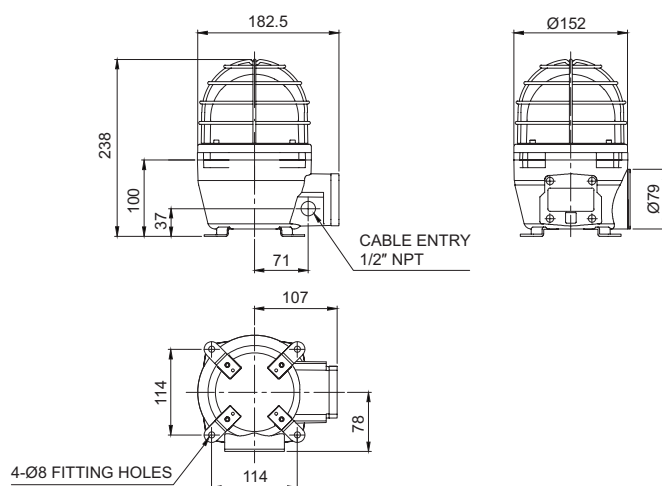


SNE-TI

Technical Diagram

Units: mm

· SNELR-TI / SNEL-TI / SNE-S-TI / SNE-TI



Ordering Specification

SNE	-	230	-	R	-	TI
[Model number]		[Voltage]		[Color]		[Telephone Initiated]
SNELR		12-DC12V		● R-Red		
SNEL		24-DC24V		● A-Amber		
SNE-S		120-AC120V		● G-Green		TI-Telephone Initiated
SNE		230-AC230V		● B-Blue		

Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (M20x1.5) available

Ø130mm Explosion Proof Signal Beacon with Siren Buzzer(Telephone Initiated)

SNES-S-TI



SNES-S-TI

PRODUCT SPECIFICATION

SNES-S-TI

Materials Lens-Tempered glass, Filter-PC, Housing-Al, Protection cage-STSS316L, Bracket-STSS316L

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

Sound volume Max.105dB at 1m(Volume adjustable)

Protection rating

IECEX - Ex db IIC T6 Gb,

Ex db op is IIC T6 Gb, IP66

ATEX - II 2G Ex db IIC T6 Gb

II 2G Ex db op is IIC T6 Gb, IP66

Certificates IECEX, ATEX

Cable entry 1/2" NPT

Housing standard color MUNSELL No. 7.5BG 7/2

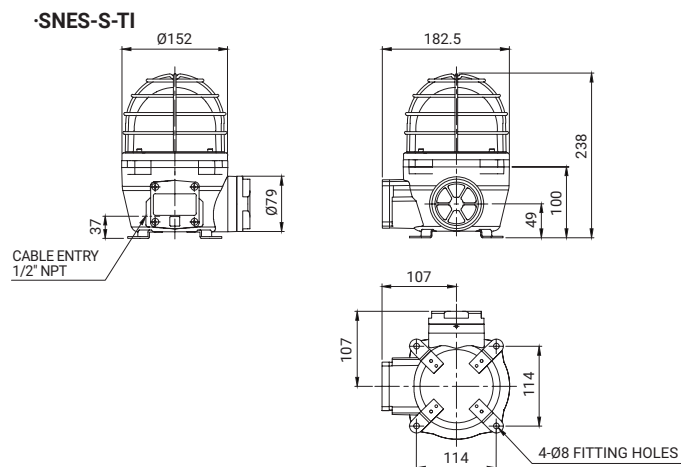
- Light weight and compact explosion proof signal beacon with siren buzzer
- Telephone initiated signal beacon triggers built-in alarm sound that is activated by 25Hz telephone ring signal
- Highly noticeable telephone alarm in noisy environment
- Telephone line(2 LINE) is connected to PSTN telephone line
- Aluminum housing provides excellent durability
- Fully enclosed structure with protection rating of IP66
- Integrated housing and terminal box model
- Rated power when telephone lines are not in use: 45VDC - 55VDC
- Rated power when telephone rings: 95VDC - 130VDC

SNES-S-TI Xenon Strobe Signal Beacon with Siren Buzzer

Model number	Voltage	Current	Xenon lamp			Certificates	Weight	Color	Color
			Spec	Standard	Parts no				
SNES-S-TI	DC12V	590mA	200V -350V	BGA2120	47	Warning sounds (Buzzer) : Max.105dB	IECEX ATEX	3.60kg	R-Red
	DC24V	450mA		-BBC				3.60kg	A-Amber
	AC120V	170mA		I type				4.25kg	G-Green
	AC230V	80mA						4.25kg	B-Blue

Technical Diagram

Units: mm



Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- M20x1.5 cable entry

Ordering Specification

SNES-S	-	230	-	R	-	TI
[Model number]		[Voltage]		[Color]		[Telephone Initiated]
SNES-S		12-DC12V 24-DC24V 120-AC120V 230-AC220V		R-Red A-Amber G-Green B-Blue		TI-Telephone Initiated

Explosion Proof Electronic Sounder(Telephone Initiated)

SPNA-TI



PRODUCT SPECIFICATION

SPNA-TI

Materials Housing-Al, Horn housing-STS316L

Ambient operating temperature

-40°C ≤ Tamb ≤ +60°C

Sound volume Max.118dB at 1m(Volume adjustable)

Protection rating

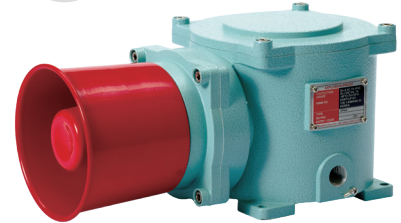
IECEX - Ex d II C T6 Gb, IP66

ATEX - EX II 2G Ex d II C T6 Gb, IP66

Certificates IECEX, ATEX

Housing standard color MUNSSELL No. 7.5BG 7/2

Cable entry 1/2" NPT



SPNA-TI

- Explosion proof alarm horn sounder
- Telephone Initiated signal sounder triggers built-in alarm sound that is activated by 25Hz telephone ring signal
- Highly noticeable telephone alarm in noisy environment
- Telephone line(2 LINE) is connected to PSTN telephone line
- Various sound tones can be selected : warning sound, alarm, melody
- Aluminum housing provides excellent durability
- Installation of terminal block for power connection inside the housing
- Rated power when telephone lines are not in use: 45VDC - 55VDC
- Rated power when telephone rings : 95VDC - 130VDC

SPNA-TI Explosion Proof Electronic Sounder, Max.113dB

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SPNA-TI	DC24V	830mA	·WS-5 Warning sounds: Max.118dB ·WP-5 Special warning sounds : Max.118dB		6.09kg
	AC120V	190mA	·WM-5 Melodies: Max.118dB ·WA-5 Alarms: Max.116dB		6.44kg
	AC230V	110mA	·WV-5 Customizable voices: 110-115dB		6.44kg

※ Please refer to [Sound tone and combination for standard product] on this catalogue for detailed sound tone specification

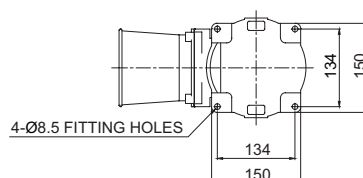
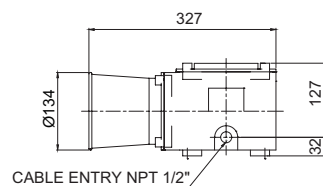
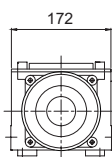
※ Max.built-in volume feature is based on WS, WP-Ch1 / WM-Ch5 / WA-Ch5.

※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Technical Diagram

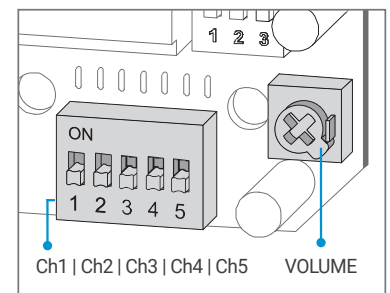
Units: mm

·SPNA-TI



Sound Selection Instructions and Wiring

- Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



- Customization : External contact(LC)
In case of select sound between external contact and transistors, sound line is threading as customization when product released(LC).

Ordering Specification

SPNA	-	WM	-	230	-	LC	-	TI
[Model number] SPNA		[Sound] WS-Warning sounds WP-Special warning sounds WM-Melodies WA-Alarms WV-Customizable voices		[Voltage] 24-DC24V 120-AC120V 230-AC220V		[sound selection] None-Standard type LC Type-Uses external contact		[Telephone Initiated] TI-Telephone Initiated

Customization

- Explosion proof cable gland attached type available (Standard type does not come with explosion proof cable gland)
- 2 ways cable entries
- Customized cable entry (3/4" NPT, M20×1.5, M25×1.5) available

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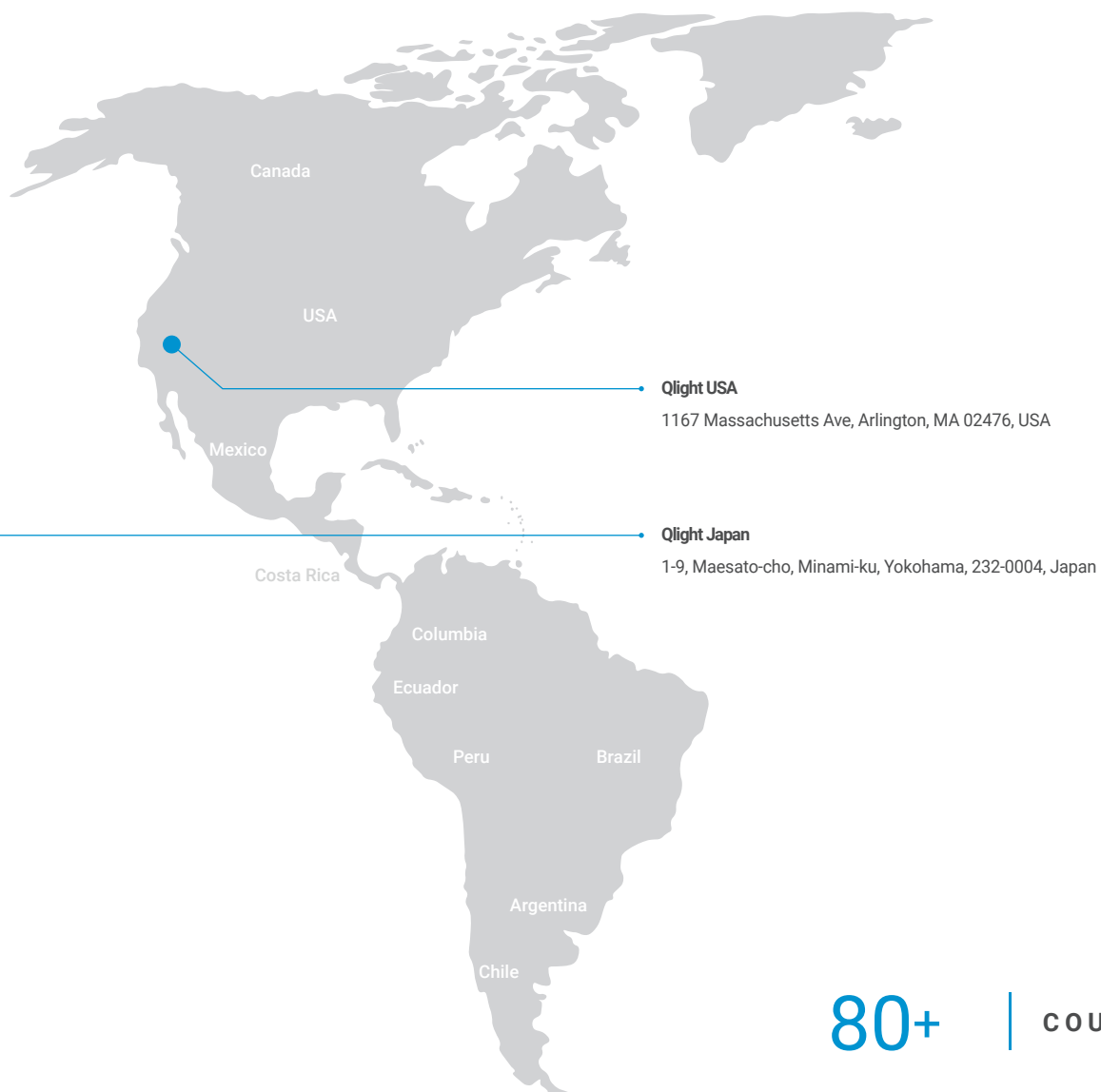
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ISO
International Organization for
Standardization



IECEx
International Explosion Proof
Certification(IECEx)



ATEX
The European Regulatory
Framework of Manufacture, Installation
and Use of Equipment in Explosive
Atmospheres



NEPSI
National Center for Explosion Protection
and Safety of Instrumentation



NRTL
Certified by designated U.S. laboratory



KCs
Korea safety Certification



TIIS
Technology Institution of
Industrial Safety



CCS
China Classification Society



TS
Industrial Safety Technology Institute
of Taiwan



FCC
Federal Communications Commission



S-mark
Safety Certification



KC
Korea Certification Mark



CCC
China Compulsory Certificate



CCCF
China Certification Center for
Security & Protection



UL
Underwriters Laboratories



CE
European Commission



ICAO
International Civil Aviation Organization



RoHS2
Restriction of Hazardous Substances
Directive

Qlight Catalog Introduction

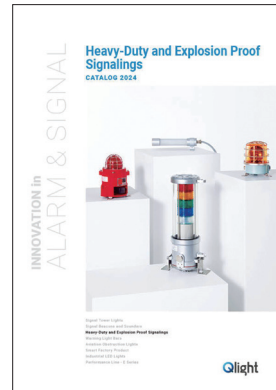
Qlight produces a wide variety of product categories which offers the customer the ability to select the suitable device for their application needs and environments. There are signal tower lights, Signal Beacons and Sounders, Heavy-Duty and Explosion Proof Signalings, Warning light bars, Aviation Obstruction Lights, Smart Factory Product, Industrial LED lights, and Performance Line - E Series



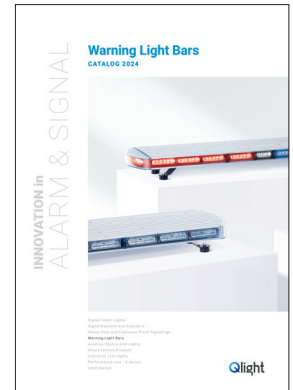
Signal Tower Lights



Signal Beacons and Sounders



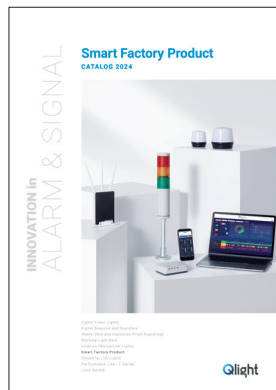
Heavy-Duty and Explosion Proof Signalings



Warning Light Bars



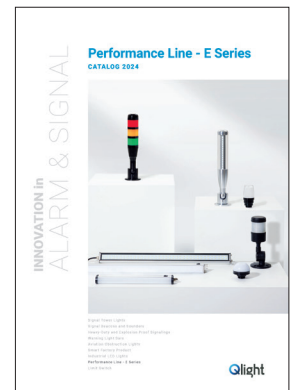
Aviation Obstruction Lights



Smart Factory Product



Industrial LED Lights



Performance Line - E Series

You could download and find the latest Catalog on the Qlight website.

* The latest product information could be accurately checked on the Qlight website (www.qlight.com). Please refer to the user manual attached with the product before installation and use.



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