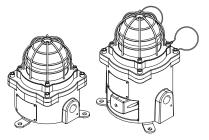
## Explosion Proof LED Signal/ Warning Light and Electric Sounder Combination

# QNE(S)/ QNE(S)-CR





Thank you for purchasing Qlight's products. Please read this user manual carefully prior to installation and operation to ensure safe and correct use.

### Safety Precautions for Explosion Proof Products

Please follow the instruction below to ensure safe and correct use of explosion proof products.

- 1. Explosion proof products should be managed according to explosion proof regulations. Do not disassemble, assemble, alter or repair the product arbitrarily.
- 2. The temperature rating of the product is the temperature the product will experience at the applied rated voltage and ambient temperature indicated.
- 3. Use cable glands that satisfy the product's explosion proof grade and temperature grade.
- 4. Unused cable entries must be filled with material that meets the explosion proof grade and temperature rating.
- 5. Before installing the product, please make sure all cautions indicated on the labels, packaging, and operation manual of the product are fully understood.
- 6. Installation, maintenance and repair of the product must be performed by experts in the explosion proof field, or persons who have received relevant training.
- 7. For safety, the product should be installed and operated in environments that avoid high temperature and high pressure.
- 8. Please follow general safety precautions and avoid installing the product in locations that may generate excessive heat.
- 9. When installing the product in places where chemicals are located, please make sure that the environment does not have two or more incompatible chemicals mixed. For safety, please read the instruction manual carefully and be mindful of the chemical compositions where the product is used.
- 10. This product requires grounding.
- 11. Please note that special conditions shall be applied if the sign "X" is placed after the certificate number.
- 1) For safe use, regular overpressure test must be carried out in accordance with EN 60079-1, clause 15.2.3.
- 2) For safe use, tempered glass must be protected from strong impact
- 12. When using NPT cable glands (plugs), it is recommended to use them after applying non-hardening grease to maintain protective performance.

## Precaution for Safety

Failure to follow the instructions below may cause a loss of life or serious physical injury.

- 1. During wiring or maintenance, please completely turn off the power of the product. (Failure to follow this may lead to an electric shock.)
- 2. Do not install the product in locations that subjects it to excessive dust or water other than the conditions designated by the IP protection ratings indicated for each product. (Failure to follow these instructions may cause a fire to the product, electric shock, physical injury, malfunction or damage to the product.)
- 3. Do not alter or repair this product. If maintenance or repair service is required, please contact your local Qlight contact point. (Failure to follow these instructions may lead to fire, electric shock, or product damage.)
- 4. Please apply the correct voltage to the product. (Failure to follow these instructions may lead to fire, electric shock, or product damage.)
- 5. When the product is applied to a condition that may impact lives or property, please make sure to have a double safety device.
- (Failure to follow this may cause damage to property, fire, electric shock and loss of life.)

## A Precautions for Correct Use

Failure to follow the proper instructions may cause damage to property, the product, or malfunction of the product that would void the warranty.

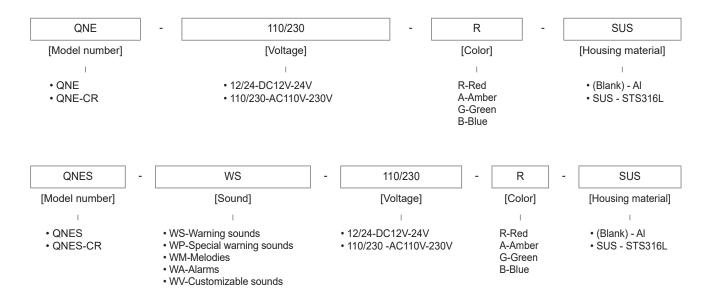
- 1. Please remove any objects that can interrupt ventilation around the product.
- 2. Please turn off the power of the product immediately if it fails to operate properly.
- 3. Carefully wire the product according to each product's specification.
- 4. Please be careful in preventing chemicals such as thinner, benzene, etc. in contact with the surface of the product.
- 5. Do not apply excessive force/impact to the product.
- 6. Failure to follow any of the instructions above may cause malfunction or damage to the product, fire, and electric shock.



Please scan the QR code for more detailed product information.

www.qlight.com

## **Ordering Specifications**



### **Product Specifications**

### Explosion Proof Specifications

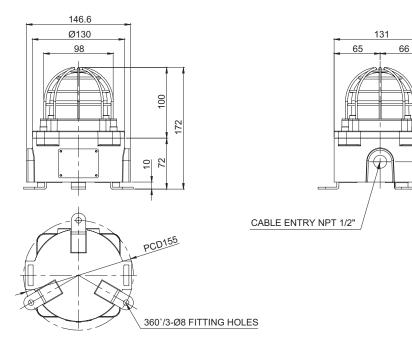
|                                     | 1  |                            |            | 1   |
|-------------------------------------|--|----------------------------|------------|---|
| Model number                        | QNE(AI/ SUS)   | Zone                       | Zone 1     | High risk gas/vapour(Gas)                   |
|                                     | QNE-CR(AI/ SUS)  | definitions(Gas)           | Zone 2     | Medium risk gas/vapour(Gas)                 |
|                                     | QNE(AI/ SUS)   |                            | GROUP II A | Acetone, Petrol, Methanol, Propane, Toluene |
|                                     | QNES-CR(AI/ SUS)   | Group<br>definitions(Gas)  | GROUP II B | Ethylene, City gas                          |
| Range of<br>operating               | DC 12V or 24V  |                            | GROUP II C | Hydrogen, Acetylene, Carbon sulphide        |
| voltage                             | AC 110V or 230V  | Maximum surface            | T1         | 450°C                                       |
|                                     | QNE/ QNES  | temperature of             | T2         | 300°C                                       |
|                                     | IECEx - Ex db IIC T6/T5 Gb<br>ATEX - 🐼 II2G Ex db IIC T5/T6 Gb | electrical equipment       | Т3         | 200°C                                       |
|                                     | KCs - Ex d IIC T6/T5   | Zone                       | T4         | 135°C                                       |
| Ex mark                             | NEPSI,CCC - Ex db IIC T5/T6 Gb                                 | definitions(Dust)          | T5         | 100°C                                       |
|                                     | QNE-CR/ QNES-CR<br>IECEx - Ex db IIC T5/T6 Gb                  | _                          | Т6         | 85°C  |
|                                     | ATEX - 🚱 II2G Ex db IIC T5/                                    | Group<br>definitions(Dust) | Zone 21    | High risk powder/dust(Dust)                 |
|                                     | T6 Gb  | dominiono(Buot)            | Zone 22    | Medium risk powder/dust(Dust)               |
|                                     | QNE  |                            | GROUP II A | Ignitible fibers/flyings(more than 0.5mm)   |
|                                     | -40°C ≤ Ta ≤ 60°C (T5)<br>-40°C ≤ Ta ≤ 50°C (T6)               | Group<br>definitions(Dust) | GROUP II B | Non-conductive dusts                        |
|                                     |  | dominiono(Buot)            | GROUP II C | Conductive dusts                            |
| Ambient<br>operating<br>temperature | QNE-CR<br>-52°C ≤ Ta ≤ 60°C (T5)<br>-52°C ≤ Ta ≤ 50°C (T6)     |                            |            |   |
|                                     | QNES<br>-40°C ≤ Ta ≤ 60°C (T5)<br>-40°C ≤ Ta ≤ 45°C (T6)       |                            |            |   |
|                                     | QNES-CR<br>-52°C ≤ Ta ≤ 60°C (T5)<br>-52°C ≤ Ta ≤ 45°C (T6)    |                            |            |   |
| Explosion<br>proof Zone             | Zone1, Zone2   |                            |            |   |
| Material                            | ALDC12.1, SUS316L  |                            |            |   |
| Protection<br>rating                | IP66   |                            |            |   |

### General Product Specifications

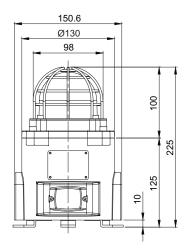
| Model number | Voltage    | Power consumption | Current     | Certificates | Weight | Color                                 |
|--------------|------------|-------------------|-------------|--------------|--------|---------------------------------------|
| QNE          | DC12-24V   | Max. 7W           | Max. 0.558A | IFCEx A      | 2.05kg | R-Red<br>A-Amber<br>G-Green<br>B-Blue |
|              | AC110-230V | Max. 20W          | Max. 0.136A |              |        |                                       |
| QNE-SUS      | DC12-24V   | Max. 7W           | Max. 0.558A |              | 4.65kg |                                       |
|              | AC110-230V | Max. 20W          | Max. 0.136A | ATEX         |        |                                       |
| QNE-CR       | DC12-24V   | Max. 7W           | Max. 0.558A |              | 0.051  |                                       |
|              | AC110-230V | Max. 20W          | Max. 0.136A | 1ECEx 2.05kg |        |                                       |
| QNE-CR-SUS   | DC12-24V   | Max. 7W           | Max. 0.558A | Ex<br>ATEX   |        |                                       |
|              | AC110-230V | Max. 20W          | Max. 0.136A |              | 4.65kg |                                       |

| Model number | Voltage    | Power consumption | Current     | Sound pattern and volume   | Certificates | Weight | Color                                 |
|--------------|------------|-------------------|-------------|--|--------------|--------|---------------------------------------|
| QNES         | DC12-24V   | Max. 23W          | Max. 1.872A | <ul> <li>WS-5 Warning sounds : Max.110dB</li> <li>WP-5 Special warning sounds :<br/>Max.110dB</li> <li>WM-5 Melodies : Max.105dB</li> <li>WA-5 Alarms : Max.105dB</li> <li>WV-5 Customizable voices :<br/>Max.103dB</li> </ul> | Itor.        | 3.15kg | R-Red<br>A-Amber<br>G-Green<br>B-Blue |
|              | AC110-230V | Max. 43W          | Max. 0.301A |  |              |        |                                       |
| QNES-SUS     | DC12-24V   | Max. 23W          | Max. 1.872A |  | (Ex)         |        |                                       |
|              | AC110-230V | Max. 43W          | Max. 0.301A |  |              |        |                                       |
| QNES-CR      | DC12-24V   | Max. 23W          | Max. 1.872A |  |              | 3.15kg |                                       |
|              | AC110-230V | Max. 43W          | Max. 0.301A |  | IEĈEx        |        |                                       |
| QNES-CR-SUS  | DC12-24V   | Max. 23W          | Max. 1.872A |  | Ex<br>ATEX   | 7 001  |                                       |
|              | AC110-230V | Max. 43W          | Max. 0.301A |  | 7.60kg       |        |                                       |

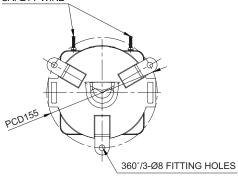
### QNE/ QNE-SUS/ QNE-CR/ QNE-CR-SUS

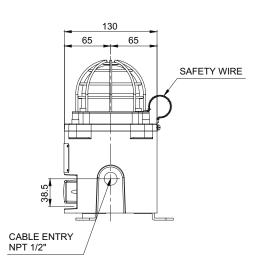


QNES/ QNES-SUS/ QNES-CR/ QNES-CR-SUS



SAFETY WIRE

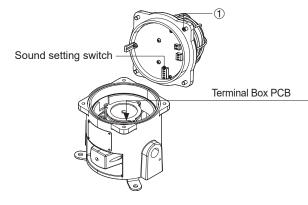




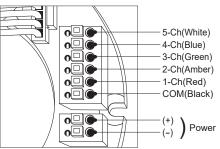
38.5

## **Terminal Block Instructions**

- Disassemble the cover assembly set. ①Loosen four M6 bolts.
- For detailed wiring instructions, please refer to image below. Please assemble the cover set in reverse order of disassembly.

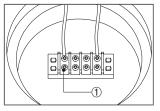


### Terminal Box Wiring Instructions(QNES)



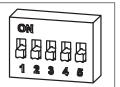
Please be careful of signal line jams during reassembly of the cover set.
 Applicable cable range: AWG16~AWG22

### Terminal Box Wiring Instructions(QNE)



- Terminal block is located inside of the QNE.
- Please apply fork (U-type) or ring (O-type) locking spade terminal at naked tip of the wire for secure connection.
- Please wire the power line to terminal ①
- For AC type products, wire regardless of polarity.
- For DC type products, wire terminal of black line to (-) polarity.
- External signal line UL1015 AWG18(0.75sq) x 2C

## Sound Setting - Select using the switch inside of the unit(QNES(-CR) only).



Standard unit has 5 built-in sound tones. Select different built-in sounds using the sound setting switch.
For standard type, once the unit is powered on, light and sound are working simultaneously.

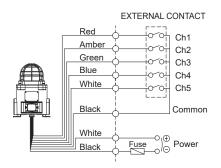
### Sound Type by Group

| Category | Sound pat-<br>tern         | Channel     | Sound Tone  | volume<br>(Max.) |  |  |
|----------|----------------------------|-------------|---|------------------|--|--|
|          | 5 Warning sounds           | Ch1         | Fire.A-ANG  |                  |  |  |
| WS       |                            | Ch2         | Emergency WA-U                                      |                  |  |  |
|          |                            | Ch3         | Ambulance PI-PO                                     | 110dB            |  |  |
|          | sounus                     | Ch4         | Machinery Fault                                     | ]                |  |  |
|          |                            | Ch5         | High Expansion                                      |                  |  |  |
|          |                            | Ch1         | Fire.A-ANG  |                  |  |  |
|          | 5 Special                  | Ch2         | Abandon Alarm                                       |                  |  |  |
| WP       | Warning                    | Ch3         | Machinery Fault                                     | 110dB            |  |  |
|          | sounds                     | Ch4         | High Expansion                                      | 1                |  |  |
|          |                            | Ch5         | 7 Short PI. / 1 Long                                |                  |  |  |
| WM       |                            | Ch1         | Sweet Home  |                  |  |  |
|          |                            | Ch2         | For Elise   |                  |  |  |
|          | 5 Melodies                 | Ch3         | Cuckoo's Waltz                                      | 105dB            |  |  |
|          |                            | Ch4         | Piano Sonata  | ]                |  |  |
|          |                            | Ch5         | Turkish March                                       |                  |  |  |
| WA       |                            | Ch1         | Beep Intermittent                                   |                  |  |  |
|          |                            | Ch2         | Door Chime  | 1                |  |  |
|          | 5 Alarms                   | Ch3         | Phone Ring  | 105dB            |  |  |
|          |                            | Ch4         | PI.PI.PI Short                                      | 1                |  |  |
|          |                            | Ch5         | Tripping Beat                                       | 1                |  |  |
| WV       | 5 Customiz-<br>able sounds | Ch1-<br>Ch5 | Available upon<br>request(customized<br>voice type) | 103dB            |  |  |

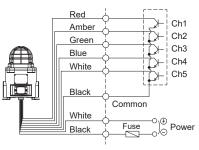
# Sound Setting - Select using External contact(LC)(QNES(-CR) only).

 Customized wiring available to select the sound tone via external contact or transistor wiring type (Model number : -LC)

#### QNES-DC/AC



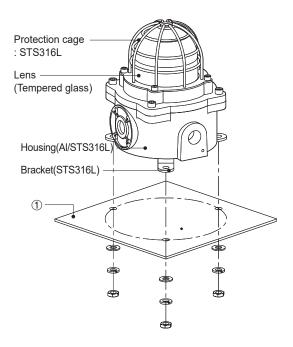
#### EXTERNAL TRASISTOR-NPN



• External power line - UL1015 AWG18(0.75sq) x 2C 400mm

• External signal line - UL1007 AWG22(0.3sq) 400mm

### Parts Definition/ Installation

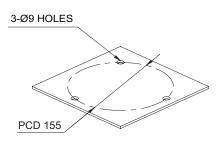


- First, machine taps or holes on the mounting surface ①.
- The mounting hole of this product is 8mm in diameter.
- When machining taps, fasten the bolt through the mounting hole of the product.
- When machining holes, insert the bolt through the hole of the product, and tighten the nut from the opposite side of the mounting surface.

## Mounting Hole Specifications/ Grounding Instructions

### Mounting Hole Specifications

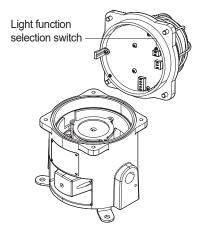
• Machine holes on the mounting surface referring to the diagram below.

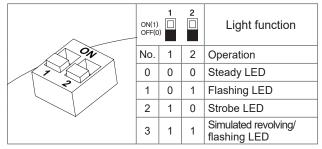


QNE/QNES/QNE-CR/QNES-CR

### Light Function Selection

• Please refer to the chart below to use light function selection switch located inside the product.





• Default function is set at steady LED. Select the desired function for your application during installation.

### Grounding Instructions



- M4 ground contact part

- Please use an M4 bolt at the location marked in the diagram above to ground the product.
- When connecting the grounding cable, please use a ring terminal.
- Please use a ring terminal made of C5212 material as it has the same electrical properties of the conductor.
- Please use a grounding cable with a diameter greater than 4mm.

### Installation Environment and Protection Rating

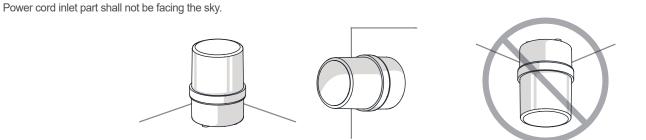
- This product is designed for use with protection rating of IP66.
- If the product is installed in locations that subject it to excessive dust or water other than the designated IP protection rating indicated(IP66), it may cause malfunction or damage to the product.
- · For further information, please visit our website (www.qlight.com).

## Product installation direction

#### Install the product in accordance with the manual. Otherwise rainwater or moisture may penetrate into the product.

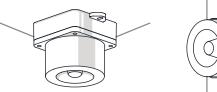
· BEACON/SIGNALING LIGHT

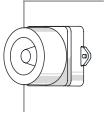
\* For products with a protection rating of less than IPX4, please install it vertically.



· ELECTRONIC SOUNDER/SIGNAL HORN

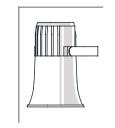
Sounder part shall not be facing the sky.









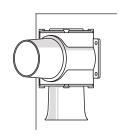




### · HEAVY-DUTY & EXPLOSION PROOF SIGNALINGS

Sounder part shall not be facing the sky.

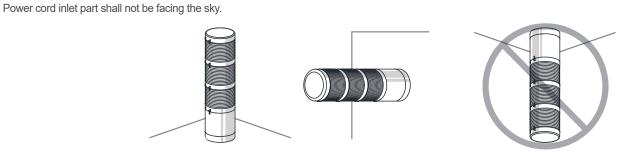


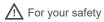




· SIGNAL TOWER LIGHTS

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





Specification and dimensions listed in this catalogue subject to change without notice for product quality improvement. The newest product information is available on our website.(www.qlight.com) Please read the instruction manual attached to the product carefully before installation and use.

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Sightec Solution such as model name, symptom, telephone number and address. \*ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY FUNCTION OR DESIGN OR OTHERWISE

RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE. Head office : Suite #1510, STX-V Tower, 128 Gasan digital 1-ro, Geumcheon-gu, Seoul, Korea (Postal Code : 08507) Factory : 185-25, Mukbang-Ro, Sangdong-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea (Postal Code : 50805)