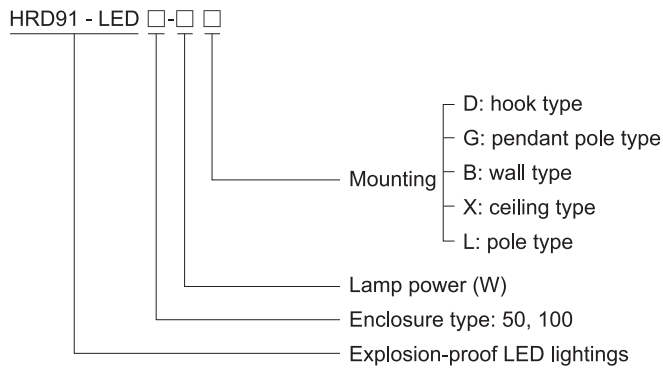


## LED Light Fittings HRD91-LED Series Explosion-proof LED Lightings



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- ◆ Two enclosure types: 50, 100
- ◆ Applicable lamp and power (max.100W)
  - LED : 30W, 50W, 70W, 100W
- ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure
- ◆ Low-maintenance due to long service life of up to 100,000 operating hours.

### Catalogue number logic



### Selection table

| Type / Ordering code | Lamp power(W) |
|----------------------|---------------|
| HRD91-LED-50-□ □     | 30, 50        |
| HRD91-LED-100-□ □    | 70, 100       |

**Note:** 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/53).  
2. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.

## Zones 1&2; 21&22

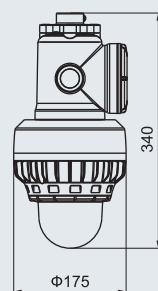
## LED Light Fittings

### HRD91-LED Series Explosion-proof LED Lightings

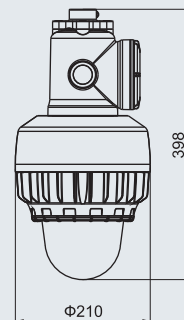
| Technical data                                      |   |
|---|---|
| <b>Explosion-proof LED lightings</b> HRD91-LED-□-□□ |   |
| <b>Explosion protection</b>                         | <p>Gas explosion protection <math>\text{Ex II 2 G Ex db op is IIC T6/T5 Gb}</math></p> <p>Dust explosion protection <math>\text{Ex II 2 D Ex tb op is IIIC T80°C/T95°C Db IP66}</math></p>  |
| <b>Certificates</b>                                 | ATEX and IECEx (applied for)  |
| <b>Conformity to standards</b>                      | EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31<br>IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31  |
| <b>Material</b>                                     |   |
| Enclosure   | Copper-free aluminium, powder coated surface, yellow (RAL1021)  |
| Transparent cover                                   | Toughened glass, stands 4J impact   |
| Exposed fastener                                    | Stainless steel   |
| LED driver  | Wide voltage input, CC-CV (constant current - constant voltage) output, power factor $\geq 0.95$ , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit |
| <b>Lamp</b>   |   |
| Lamp specification                                  | LED module, Multiple LED  |
| Lamp power (W)                                      | 30W, 50W, 70W, 100W   |
| Colour Temperature (CCT)                            | 5000 $\pm$ 300K<br>Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.  |
| <b>Rated voltage</b>                                | 220~240V AC 50/60Hz   |
| <b>Earthing protection</b>                          | M5 (internal & external earth bolts)  |
| <b>Degree of protection</b>                         | IP66  |
| <b>Ambient temperature</b>                          | T6/T80°C for Tamb: -40°C~+45°C<br>T5/T95°C for Tamb: -40°C~+55°C  |
| <b>Terminal</b>                                     | 3 x 1.5~4mm <sup>2</sup> (L+N+PE)   |
| <b>Mounting</b>                                     | Ceiling type, pole type, pendant pole type, wall type, hook type  |
| <b>Cable entries</b>                                | M25 x 1.5   |
| <b>Cable gland</b>                                  | See Mounting Accessories & Spare Parts Table  |
| <b>Available cable outer diameter</b>               | $\Phi 10 \sim \Phi 14$ (mm)   |



#### Dimension drawings (all dimensions in mm) - subject to alteration



HRD91-LED-50



HRD91-LED-100

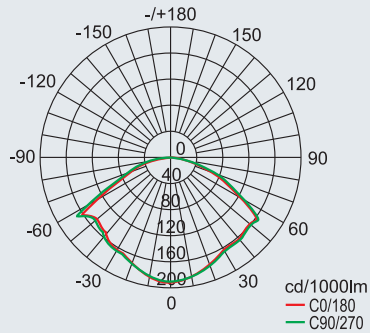
## LED Light Fittings HRD91-LED Series Explosion-proof LED Lightings

**Photometric data** Note: LED luminous flux is from the standard product of which colour temperature is 5000 ± 300K



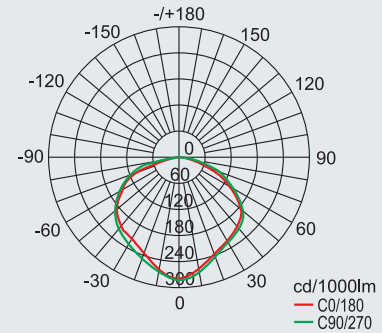
### HRD91-LED-50-30-□

Rated luminous flux  
30W LED: 3000lm  
Luminous efficacy: 100lm/W



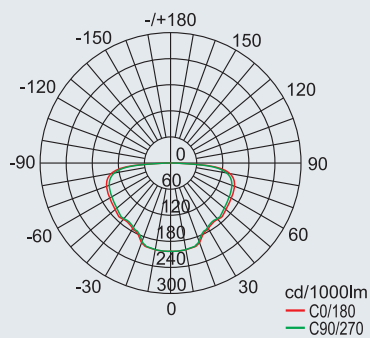
### HRD91-LED-100-70-□

Rated luminous flux  
70W LED: 7000lm  
Luminous efficacy: 100lm/W



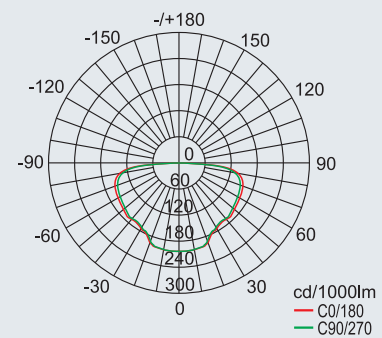
### HRD91-LED-50-50-□

Rated luminous flux  
50W LED: 5000lm  
Luminous efficacy: 100lm/W



### HRD91-LED-100-100-□

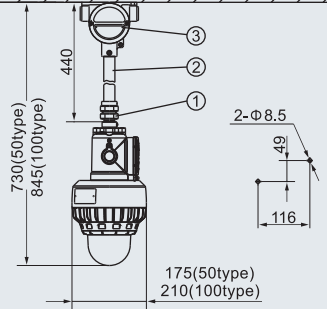
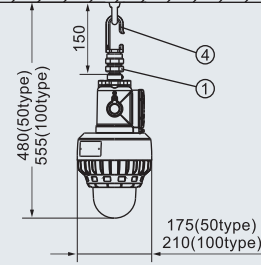
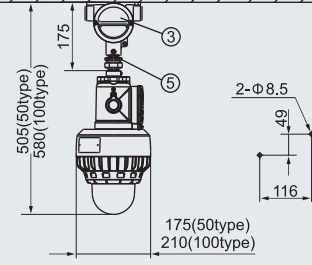
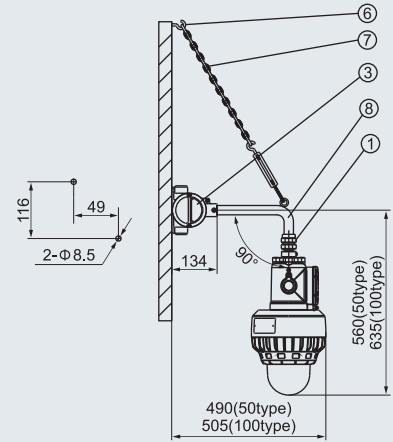
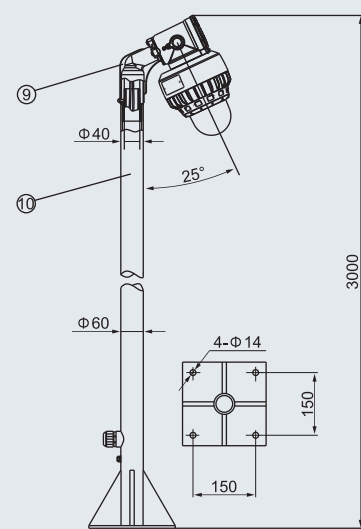
Rated luminous flux  
100W LED: 10000lm  
Luminous efficacy: 100lm/W



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

## LED Light Fittings HRD91-LED Series Explosion-proof LED Lightings

### Mounting type (all dimensions in mm) - subject to alteration

| G: pendant pole type   | D: hook type  | X: ceiling type   |
|--|---|---|
|  <p>Weight: 4.05kg (50type)<br/>6.00kg (100type)</p> <p>Accessories supplied with the light fittings:</p> <ol style="list-style-type: none"> <li>1. BGJ-III Explosion-proof connector G3/4"(M)/M25×1.5(F), carbon steel.</li> <li>2. Straight pipe (M25 × 1.5), length: 300mm.</li> <li>3. BHD51-F (Ex d IIC, copper-free aluminium), see P3/4.</li> </ol>  |  <p>Weight: 3.05kg (50type)<br/>5.00kg (100type)</p> <p>Accessories supplied with the light fittings:</p> <ol style="list-style-type: none"> <li>1. BGJ-III explosion-proof connector G3/4"(M)/M25 × 1.5(F), carbon steel.</li> <li>4. Hook (carbon steel).</li> </ol> |  <p>Weight: 3.60kg (50type)<br/>5.60kg (100type)</p> <p>Accessories supplied with the light fittings:</p> <ol style="list-style-type: none"> <li>3. BHD51-F (Ex d IIC, copper-free aluminium), see P3/4.</li> <li>5. BGJ-III Explosion-proof connector, M25×1.5 (M)/G3/4"(M), carbon steel.</li> </ol> |
| <h3>B: wall type</h3>  <p>Weight: 4.30kg (50type)<br/>6.30kg (100type)</p> <p>Accessories supplied with the light fittings:</p> <ol style="list-style-type: none"> <li>1. BGJ-III Explosion-proof connector G3/4"(M)/M25×1.5(F), carbon steel.</li> <li>3. BHD51-F (Ex d IIC, copper-free aluminium), see P3/4.</li> <li>6. Hook expansion bolt</li> <li>7. Chain (450 mm)</li> <li>8. Elbow pipe 90° (M25×1.5) (400 mm)</li> </ol> |   | <h3>L: pole type</h3>  <p>Weight: 3.05kg (50type)<br/>5.05kg (100type)</p> <p>Accessories supplied with the light fittings:</p> <ol style="list-style-type: none"> <li>9. Pole type connector</li> <li>10. Pole (shall be provided by user)</li> </ol>  |

