

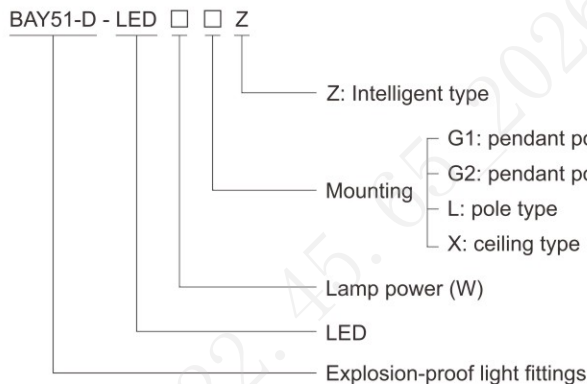
## SCS-ZM Intelligent Lighting Management and Control System

### BAY51-D-LED □□Z Series Explosion-proof Light Fittings (Intelligent Type)



- ◆ 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 B, C, D
- ◆ Two enclosure types: Type I and Type II
- ◆ The glass tube stands 4J impact.
- ◆ Enclosure in Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021).
- ◆ Built-in electronic ballast, wide voltage input, rapid starting, stable performance, power factor  $\geq 0.95$ .
- ◆ Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor  $\geq 0.95$ .
- ◆ Luminaires feature adjustable brightness for efficient energy-saving lighting;
- ◆ When used with an intelligent lighting system, they enable centralized intelligent management and control of lighting equipment.

#### ■ Catalogue number logic



#### ■ Product features



##### Intelligent Control

Equipped with an intelligent control chip, it supports individual lamp control, enabling remote on/off operation and brightness adjustment. It can also integrate with smart functions such as light sensing and human presence detection.



##### Wireless Communication

Features an embedded Zigbee industrial wireless communication module, offering flexible connectivity without the need for communication cabling—greatly simplifying on-site installation.



##### Intelligent Monitoring

Built-in intelligent sensor chip continuously monitors lamp parameters including power, current, voltage, brightness, on/off status, and fault conditions.



##### Human Presence Detection

The lamp housing can be equipped with a human presence detection module that senses movement and activates nearby lights accordingly, achieving automatic lighting when people enter the area and turning off when they leave.

# Zones 1&2; 21&22

## SCS-ZM Intelligent Lighting Management and Control System

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#### Technical data

#### Explosion-proof light fittings (Intelligent type) BAY51-D-LED□□Z

##### Explosion protection

Global (IECEX)  
Gas and dust

IECEX (applied for)  
Ex db IIB T6 Gb  
Ex db IIB+H<sub>2</sub> T6 Gb  
Ex tb IIIC T80°C Db IP66

Europe (ATEX)  
Gas and dust

ATEX (applied for)  
Ex II 2 G Ex db IIB T6 Gb  
Ex II 2 G Ex db IIB+H<sub>2</sub> T6 Gb  
Ex II 2 D Ex tb IIIC T80°C Db

##### Certificates

##### Conformity to standards

IECEX; ATEX; CU-TR  
EN 60079-0, EN 60079-1, EN 60079-31, IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Material

Enclosure  
Glass tube  
Ballast  
LED driver

Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)  
Toughened glass, stands 4J impact  
Electronic ballast  
Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.  
Powder coated carbon steel (white) or stainless steel  
Powder coated pure aluminium  
Stainless steel

Wire guard (optional)  
External reflector (optional)  
Exposed fastener

##### Lamp

Lamp specification  
Lamp power (W)  
Colour rendering index (Ra)  
LED Colour temperature (CCT)

LED SMT (supplied with the light fittings)  
LED: 20W, 40W, 60W  
LED: ≥80  
5000K  
Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.

##### Rated voltage

##### Earthing protection

##### Degree of protection

##### Ambient temperature

LED: 100-275V AC 50/60Hz  
M5 (internal & external earth bolts)  
IP66  
Ex db IIB+H<sub>2</sub> T6 Gb for Tamb: -20°C~+55°C  
Ex db IIB T6 Gb and Ex tb IIIC T80°C Db IP66 for Tamb: -60°C~+55°C  
Ex II 2 G Ex db IIB+H<sub>2</sub> T6 Gb for Tamb: -20°C~+55°C  
Ex II 2 G Ex db IIB T6 Gb and Ex II 2 D Ex tb IIIC T80°C Db for Tamb: -60°C~+55°C

##### Terminal

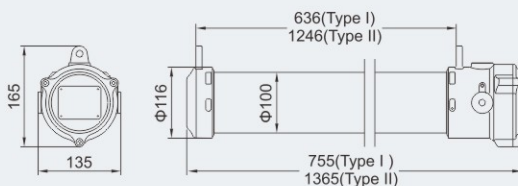
##### Cable entries

##### Cable gland(optional)

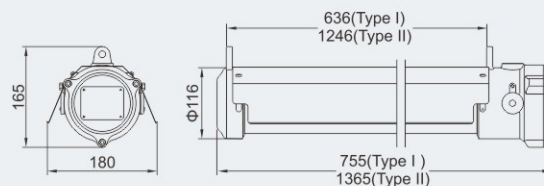
3×1.5~4mm<sup>2</sup> (L+N+PE)  
2×M25×1.5 plugs  
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P6/24~39



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



Type I: BAY51-D-LED20□Z  
BAY51-D-LED40□Z  
Type II: BAY51-D-LED60□Z  
Without external reflector



Type I: BAY51-D-LED20□Z  
BAY51-D-LED40□Z  
Type II: BAY51-D-LED60□Z  
With external reflector

#### Detailed Parameters

Luminaire photometric curve diagram, external dimensions, installation schematic, mounting accessories, mounting components, and spare parts list are detailed on page P2/30~31.