

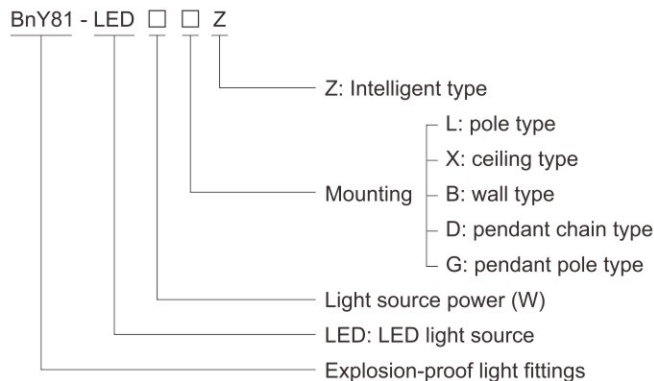
SCS-ZM Intelligent Lighting Management and Control System

BnY81-LED □ □ Z Series Explosion-proof Light Fittings (Intelligent Type)



- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 2
 - Class I, Division 2, Groups A, B, C, D
- ◆ Two enclosure types: Type I and Type II
- ◆ LED light fittings: Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥ 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.



Intelligent Monitoring

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



Wireless Communication

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



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

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Technical data

Explosion-proof light fittings (Intelligent type) BnY81-LED □□Z

Explosion protection

Global (IECEX)

Gas and dust

IECEX (applied for)

Ex ec mb IIC T5/T4 Gc¹⁾

Ex db ec mb IIC T5/T4 Gc¹⁾

Ex tb IIIC T80°C Db¹⁾

Europe (ATEX)

Gas and dust

ATEX (applied for)

⊕ II 3 G Ex ec mb IIC T5/T4 Gc¹⁾

⊕ II 3 G Ex db ec mb IIC T5/T4 Gc¹⁾

⊕ II 2 D Ex tb IIIC T80°C Db¹⁾

¹⁾ See Selection Table P2/41

Certificates

Conformity to standards

IECEX; ATEX; CU-TR

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-18, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-18, IEC 60079-31

Material

Enclosure

Diffuser

LED driver

GRP, stands 7J impact, corrosion-proof

Polycarbonate, high light transmission, stands 7J impact

Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.

Exposed fastener

Stainless steel

Lamp

Lamp specification

Lamp power (W)

SMD LED

20W, 40W, 60W

Rated voltage

100~277V AC 50/60Hz

Degree of protection

IP66

Ambient temperature

-40°C~+60°C(+58°C)(+40°C)

Terminal

3×1.5~4mm² (L+N+PE)

Mounting

Ceiling type, pendant pole type, pendant chain type, wall type, pole type

Cable entries

Pole type: 1×Φ26: 1×M25×1.5 cable glands (DQM-I/I Ex eb, plastic).

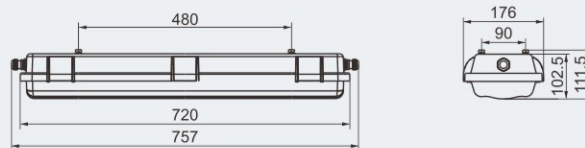
Other mounting methods: 2×Φ26: 2×M25×1.5 cable glands (DQM-I/I Ex eb, plastic).

Available cable outer diameter

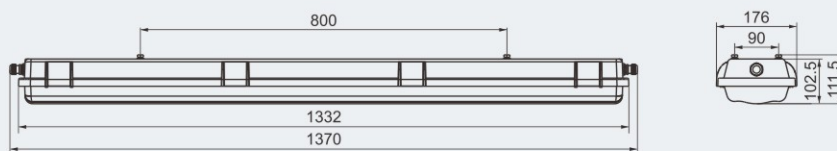
Φ9~Φ16(mm);



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



Type I: BnY81-LED 20□Z; BnY81-LED 40□Z



Type II: BnY81-LED 60□Z

Detailed Parameters

Luminaire photometric curve diagram, external dimensions, installation schematic, mounting accessories, mounting components, and spare parts list are detailed on page P2/42~43.