



Explosion-proof LED Flexible Strip Light

ZM-SL01 Series

ZM hazardous locations



ZM-SL01 Series

EXPLOSION-PROOF LED FLEXIBLE STRIP LIGHT

1. Functions & Features

Product description

The ZM-SLD1 Series, an innovative line of LED hazardous area lighting products, specifically designed for use in potentially explosive atmospheres (Zone 1/21 & 2/22) within harsh industrial settings such as coal mines and oil & gas facilities. Our Explosion Proof Strip Lights are designed to provide a reliable and safe lighting solution that provide continuous area lighting and targeted lighting for equipment areas.

Features

- Explosion-Proof: ATEX approved for Zone 1/21 & 2/22, suitable for methane, coal dust, and various combustible gases.
- Long Life, Low Energy: 50,000+ hours lifespan, low energy consumption, and high efficiency.
- Versatile Lighting: White for continuous lighting, colored versions for safety systems.
- Robust Design: Flexible silica gel material, waterproof connector, and controllers for underground mines.
- High-Quality LED: High-brightness SMD LED chips for superior illumination.
- Voltage Compatibility: Rated input voltage of 48v, 36v, and 24v DC/AC for flexible installation.
- IP67 Rating: Injection-molded silicone for dust and water protection.
- Consistent Performance: High color consistency and uniformity for visually cohesive lighting.

Application

- Wastewater treatment, oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, tunnels, outdoor or indoor mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present.
- Applies to hazardous locations of Zone 1/21 & 2/22 with explosive gas atmosphere.

Certification

⊕ II 2G Ex mb op is IIC T4 Gb

⊕ II 2D Ex mb op is IIIC T135°C Db

2. Technical Data of Strip Light

Parameters

| | |
|-----------------------------|--|
| EX marking | Ⓜ II 2G Ex mb op is IIC T4 Gb Ⓜ II 2D Ex mb op is IIC T135°C Db |
| Operating temperature range | -40°C~80°C |
| Dimension | W20mm*H10mm |
| IP degree of protection | IP67 |
| Impact strength | IK10 |
| Standards | EN IEC 60079-0 EN IEC 60079-18 EN IEC 60079-28 |
| Weight | 285g/m |

| Voltage | LED QTY/m | Lumen/m | Rated power/m | Color | Rated Current (A/m) | PF |
|---------|-----------|---------|---------------|-------|---------------------|------|
| AC48V | 84 | 800lm | 12W | White | 0.27 | 0.92 |
| AC48V | 84 | 250lm | 10W | Amber | 0.22 | 0.96 |
| AC48V | 84 | 670lm | 10W | Green | 0.22 | 0.94 |
| AC48V | 84 | 280lm | 10W | Red | 0.22 | 0.96 |

| Voltage | LED QTY/m | Lumen/m | Rated power/m | Color | Rated Current (A/m) | PF |
|---------|-----------|---------|---------------|-------|---------------------|----|
| DC48V | 84 | 1000lm | 12W | White | 0.25 | 1 |
| DC48V | 84 | 320lm | 10W | Amber | 0.21 | 1 |
| DC48V | 84 | 850lm | 10W | Green | 0.21 | 1 |
| DC48V | 84 | 340lm | 10W | Red | 0.21 | 1 |

| Voltage | LED QTY/m | Lumen/m | Rated power/m | Color | Rated Current (A/m) | PF |
|---------|-----------|---------|---------------|-------|---------------------|------|
| AC36V | 88 | 800lm | 12W | White | 0.37 | 0.91 |
| AC36V | 88 | 260lm | 10W | Amber | 0.29 | 0.96 |
| AC36V | 88 | 660lm | 10W | Green | 0.30 | 0.93 |
| AC36V | 88 | 270lm | 10W | Red | 0.29 | 0.96 |

| Voltage | LED QTY/m | Lumen/m | Rated power/m | Color | Rated Current (A/m) | PF |
|---------|-----------|---------|---------------|-------|---------------------|----|
| DC36V | 88 | 1000lm | 12W | White | 0.33 | 1 |
| DC36V | 88 | 330lm | 10W | Amber | 0.28 | 1 |
| DC36V | 88 | 900lm | 10W | Green | 0.28 | 1 |
| DC36V | 88 | 330lm | 10W | Red | 0.28 | 1 |

| Voltage | LED QTY/m | Lumen/m | Rated power/m | Color | Rated Current (A/m) | PF |
|---------|-----------|---------|---------------|-------|---------------------|------|
| AC24V | 84 | 800lm | 12W | White | 0.55 | 0.91 |
| AC24V | 84 | 270lm | 10W | Amber | 0.43 | 0.96 |
| AC24V | 84 | 630lm | 10W | Green | 0.45 | 0.93 |
| AC24V | 84 | 260lm | 10W | Red | 0.43 | 0.96 |

| Voltage | LED QTY/m | Lumen/m | Rated power/m | Color | Rated Current (A/m) | PF |
|---------|-----------|---------|---------------|-------|---------------------|----|
| DC24V | 84 | 1000lm | 12W | White | 0.50 | 1 |
| DC24V | 84 | 350lm | 10W | Amber | 0.42 | 1 |
| DC24V | 84 | 880lm | 10W | Green | 0.42 | 1 |
| DC24V | 84 | 310lm | 10W | Red | 0.42 | 1 |

Dimension



| Item | Figure | Description |
|---|--------|---|
| Injection-moulded Front Connector(top end) | | Connect light to power supply with pre-installed front feed cable, IP65/IP67. |
| Injection-moulded End Cap | | Cross Section of Light (mm) |
| Note: Unless otherwise stated, the tolerance of the connector is $\pm 0.5\text{mm}$. | | |

3. Electrical Accesories

Explosion-proof box

| Models | ZM-SL01 | ZM-SL02 |
|-----------------------------|---|-------------------------------|
| External dimensions | 350mm*200mm*170mm | 250mm*200mm*170mm |
| Internal dimensions | 280mm*130mm*128mm | 180mm*130mm*128mm |
| ATEX marking | Ex II 2G Ex db IIB+H ₂ T4 Gb | Ex II 2D Ex tb IIIC T135°C Db |
| IECEx marking | Ex db IIB+H ₂ T4 Gb | Ex tb IIIC T135°C Db |
| Operating temperature range | -43°C~60°C | |
| IP degree of protection | IP 67 | |
| Weight | 9KG | 8KG |

Power source

Meawell Driver

| Input | Output | Max Power |
|-----------------------|--------------------|-----------|
| 100-240V/277V 50/60Hz | DC 12V/24V/36V/48V | 200W |

Backup Battery (Optional)

12W Power, 1.5 Hours for Emergency Lighting

4. Installation mode

Surface mounting



Pendant mounting

