SCS-ZM Intelligent Lighting Management and Control System

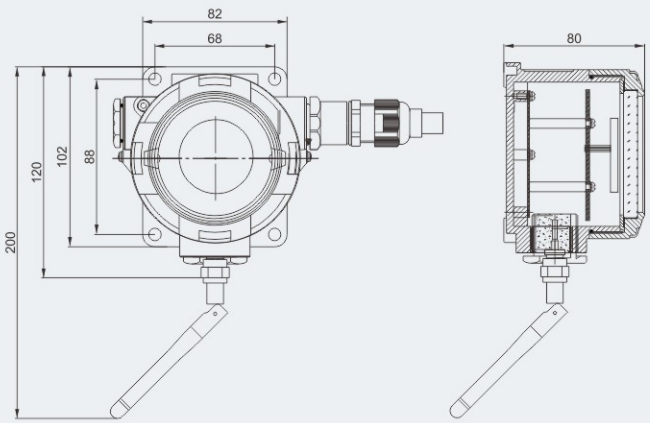
WRD-CG/□ Explosion-proof Intelligent Lighting Sensor (Microwave, Light Sensing, Wireless)

- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 2
  Zone 21 and Zone 22
- Suitable for automatic on/off control of lighting fixtures such as street lights, corridor lights, and warehouse lights in petrochemical industrial parks. Automatically adjusts based on natural light intensity, achieving the function of turning off during the day and turning on at night.
- Applicable to intelligent control fields including environmental meteorology, streetlight control, building automation, power monitoring, photovoltaic system integration, and illumination equipment testing.

Product features

- Unaffected by temperature or humidity, with no directional limitation on sensitivity.
- Re-triggering: after the first trigger, if a signal is received again within the sensing area before the initial delay time ends, the delay time will be further extended by another full cycle. (For example: if the module's delay time is 10 seconds, receiving another signal within those 10 seconds will add another 10 seconds; continuous triggering within this period will result in a continuous output signal).
- Delay time: delay time refers to the duration of the high-voltage output signal and is independent of the delay itself, which is in milliseconds and negligible.
- PWM output to LED driver power supply.
- Output voltage accuracy ±1% (customizable).
- 5.8G microwave sensing.
- Light control function.
- Sensing function and light control function can be independently enabled or disabled.
- Infrared reset, with parameters configurable simultaneously via infrared remote control.
- Input spike and electrostatic protection.

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



Zones 1&2; 21&22

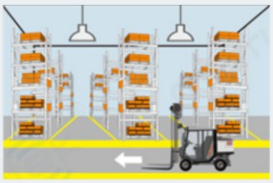
Technical data

Explosion-proof Intelligent Lighting Sensor (Microwave, Light Sensing, Wireless) WRD-CG/□

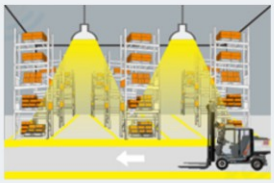
Explosion protection	
Global (IECEx)	IECEx (applied for)
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80℃ Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ⓔx II 2 G Ex db IIC T6 Gb Ⓔx II 2 D Ex tb IIIC T80℃ Db
Certificates	IECEx; ATEX
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Input Voltage	Photo Sensor: DC 5–12V Microwave Sensor: AC 220/230V
Max. Input peak current	0.6A
Max. RMS current	0.1A
Max. Power dissipation	0.85W
Max. Input surge voltage	18V
Sensing distance	1~15m (availble)
Brightness (when no one is around)	0~50% (availble)
Brightness (when someone is present)	60~100% (availble)
Service life	≥100,000h, 70℃
Dimming output voltage	PWM (5V or 10V), adjustable per customer requirements
Maximum absolute limit current	40mA

Modes

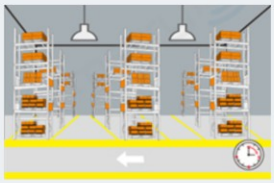
◆ **Switch mode**



① When ambient light is sufficient, the light won't turn on even if motion is detected.

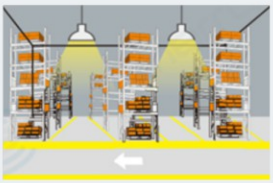


② When ambient light is low, the sensor turns the light on upon detecting motion.

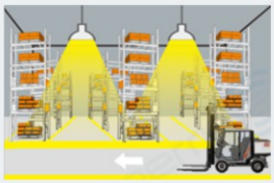


③ After the lighting duration, if no motion is detected, the light turns off.

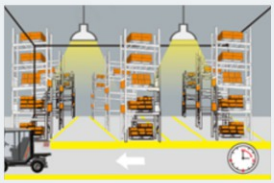
◆ **Low brightness + Light priority mode**



① When no motion is detected, the light stays at low brightness.



② Upon detecting motion, the light turns fully bright.

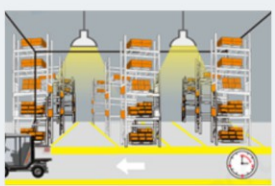


③ After the lighting duration, if no motion is detected, the light dims back to low brightness.

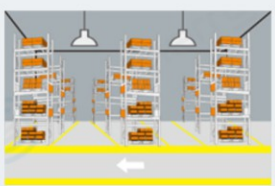
◆ **Three-State Mode**

① When ambient light is sufficient, the light won't turn on even if motion is detected.

② When ambient light is low, the sensor turns the light on upon detecting motion.



③ After the lighting duration, if no motion is detected, the light dims to a preset low brightness.



④ After the waiting period, if no motion is detected in the sensing area, the light automatically turns off.