

SCS-ZM Intelligent Lighting Management and Control System

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

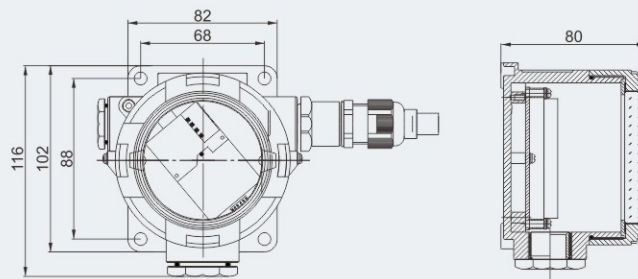


- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 2
 - Zone 21 and Zone 22
- ◆ Suitable for automatic on/off control of lighting fixtures such as street lights, corridor lights, and warehouse lights in petrochemical industrial parks. Automatically adjusts based on natural 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

- ◆ Designed with a micro-thermal structure featuring an ambient temperature compensation mechanism, ensuring stable operation unaffected by environmental temperature fluctuations.
- ◆ Utilizes single-chip microcontroller programming; light intensity is divided into 50 levels via capacitive photo-sensing circuitry for precise settings. Control is achieved through accurate light-sensing calculations without calibration-ready to use immediately upon power-up. Equipped with a multi-core cable interface.
- ◆ Automatically controls lighting based on ambient light: turns on automatically when it gets dark and turns off when daylight returns. Low energy consumption enhances energy efficiency-no manual operation required, saving labor costs. Load capacity: 10A/250V, 10A/30VDC.
- ◆ Integrated delay circuit prevents false triggering caused by sudden flashes (e.g., lightning), flashlight beams, car headlights, or brief obstructions like falling leaves blocking the photo sensor.
- ◆ Incorporates advanced imported integrated circuits-unaffected by weather or seasonal changes, offering reliable performance and high sensitivity.
- ◆ Dual PD technology accurately distinguishes between natural sunlight and LED lighting.
- ◆ 5.8GHz fixed-frequency output with strong anti-interference capability.
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Dimension drawings (all dimensions in mm) - subject to alteration



Zones 1&2; 21&22



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Technical data

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

Explosion protection

Global (IECEX)	IECEX (applied for)
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	⊕ II 2 G Ex db IIC T6 Gb ⊕ II 2 D Ex tb IIIC T80°C 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

Sensing specifications

Microwave frequency	5.8GHz±75MHz
Microwave power	<0.3mW
Detection sensitivity	100%/75%/50%/25%
Delay time	5s/1min/3min/10min
Photoelectric threshold	10Lux/25Lux/50Lux/Disable
Mounting height	Max.6m(ceiling-mounted), 1.5-1.8m(wall-mounted)
Detection distance	Radius: Max. 6m (ceiling-mounted at 3m height), Max. 10m (wall-mounted at 1.8m height)
Detection angle	30°~150°
Rated voltage	100~277V AC 50/60Hz
Load capacity	Max.400W @220VAC
Standby power dissipation	<0.5W
Degree of protection	IP66
Ambient temperature	-35°C~+70°C

Application Scenarios

