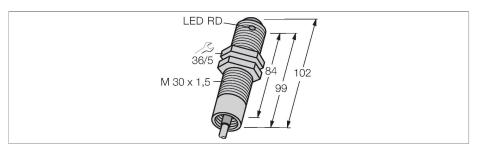


SM30PRLEB Photoelectric Sensor – Opposed Mode Sensor (Receiver)





Technical data

ID 3038694 Optical data Function Opposed mode sense operating mode Emitter/receiver pair Range 0150000 mm Electrical data Operating voltage 1030 VDC No-load current ≤ 10 mA Short-circuit protection yes / Cyclic Reverse polarity protection yes Output function Connection programm Switching frequency ≤ 160 Hz Readiness delay ≤ 0 ms Response time typical <10 ms Overcurrent release > 220 mA Mechanical data Design Tube, SM30 Dimensions Ø 30 x 102 mm Housing material Plastic, Thermoplastic Lens plastic, Acrylic Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Storage temperature -40+70 °C Relative humidity 090 % Protection class IP67	
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Protection class IP67	
Power-on indication LED, Green	
Switching state LED, Yellow	
Error indication LED, green, Flashing	

Features

- Cable, 2 m
- ■Protection class IP67
- ■Ambient temperature: -40 °C...+70 °C
- Modulation frequency B, requires transmitters with the same frequency
- Operating voltage 10...30 VDC
- Bi-modal switching output (NPN or PNP, depending on connection)

Functional principle

Opposed mode sensors consist of an emitter and a receiver. They are installed opposite to each other whereby the emitted light aims directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque objects. The excellent light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions.

Excess gain curve

Excess gain in relation to distance



TURCK

Technical data

Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, cURus, CSA