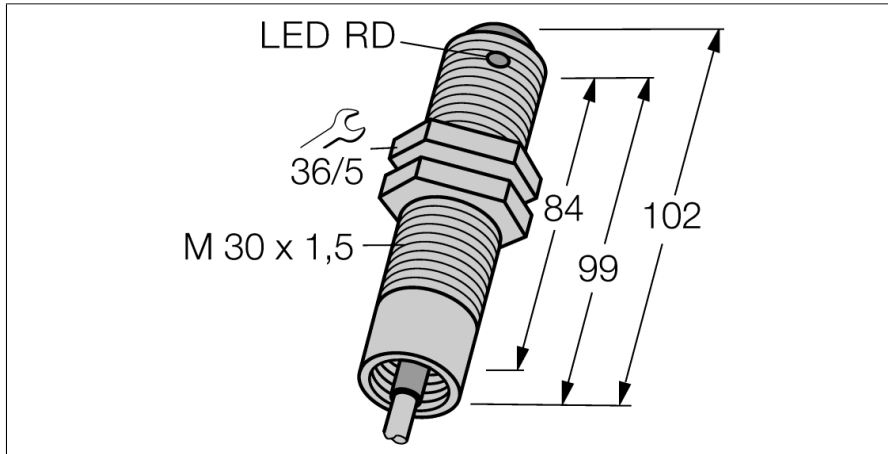


Photoelectric Sensor

Opposed Mode Sensor (Receiver)

SM30SRLE W/30



Type	SM30SRLE W/30
ID	3047826

Optical data	
Function	Opposed mode sensor
Operating mode	Emitter/receiver pair
Range	0...150000 mm

Electrical data	
Operating voltage U_a	10...30 VDC
No-load current I_0	≤ 10 mA
Short-circuit protection	yes/Cyclic
Reverse polarity protection	yes
Output function	Connection programmable, PNP/NPN
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	Metal, Stainless steel
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	4
Core cross-section	0.5 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP67

Special features	
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing

- Cable, 9 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Modulation frequency A, 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

Tests/approvals

Approvals

CE, cURus, CSA