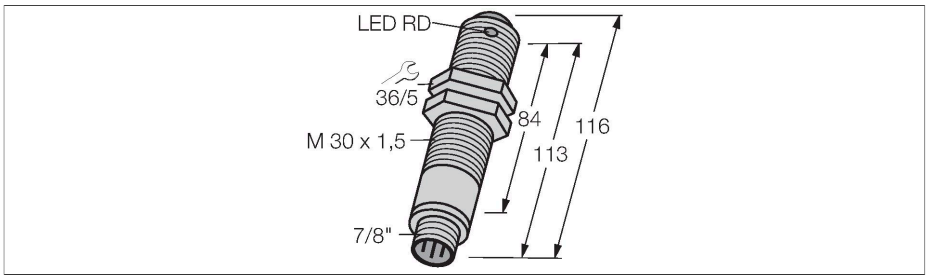
SM2A30PRLNCQDB
Photoelectric Sensor – Opposed Mode Sensor (Receiver)



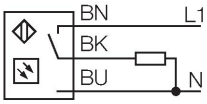
Technical data

Type	SM2A30PRLNCQDB
ID no.	3027387
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0…150000 mm
Electrical data	
Operating voltage	24…240 VAC
AC rated operational current	≤ 200 mA
Output function	Dark operation, Relay output
Switching frequency	≤ 40 Hz
Readiness delay	≤ 0 ms
Response time typical	< 10 ms
Mechanical data	
Design	Threaded barrel, SM30
Dimensions	Ø 30 x 116 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Connectors, 7/8", PVC
Number of cores	3
Core cross-section	0.5 mm^2
Ambient temperature	-40…+70 °C
Storage temperature	-40…+70 °C
Relative humidity	0…90 %
Protection class	IP67
Special features	Encapsulated
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED
Tests/approvals	
Approvals	CE, cURus, CSA

Features

- 7/8" connector, 3-pin
- Protection class IP67
- Ambient temperature: -40 °C…+70 °C
- Modulation frequency B, requires transmitters with the same frequency
- Operating voltage: 24…240 VAC
- Semiconductor relay output, SPST, dark operation

Wiring diagram



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

Accessories

Dimension drawing	Type	ID no.	
	SM30CC-306	3045133	Connecting cable, PVC jacket, 2 m, 7/8" female connector, straight, 3-pin