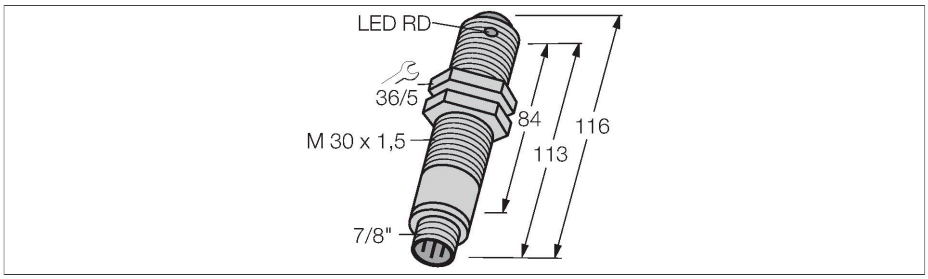
SM2A30SRLQD
Photoelectric Sensor – Opposed Mode Sensor (Receiver)



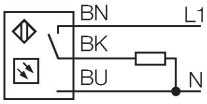
Technical data

Type	SM2A30SRLQD
ID	3027294
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	Light operation, Relay output
Switching frequency	≤ 40 Hz
Readiness delay	≤ 0 ms
Response time typical	< 10 ms
Mechanical data	
Design	Tube, SM30
Dimensions	Ø 30 x 116 mm
Housing material	Metal, Stainless steel
Lens	plastic, Acrylic
Electrical connection	Connector, 7/8", PVC
Number of cores	3
Core cross-section	0.5 mm^2
Ambient temperature	-40…+70 °C
Protection class	IP67
Special features	Chemical-resistant Encapsulated Resistant to chemicals
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…+70 °C
- Modulation frequency A, requires transmitters with the same frequency
- Operating voltage: 24…240 VAC
- Semiconductor relay output, SPST, light 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	
	SM30CC-306	3045133	Connecting cable, PVC jacket, 2 m, 7/8" female connector, straight, 3-pin