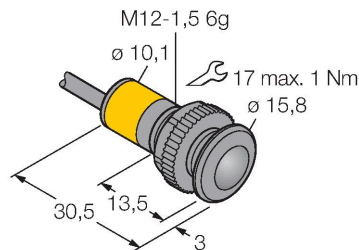


SB12TRPR

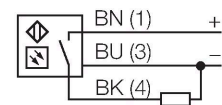
Photoelectric Sensor – Opposed Mode Sensor (Receiver)



Features

- Male M8 × 1, 3-pin
- Supply voltage 10-30 VDC
- Dark operation
- PNP

Wiring diagram



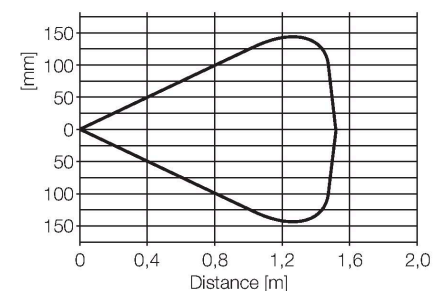
Technical data

Type	SB12TRPR
ID	3011161
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...1500 mm
Electrical data	
Operating voltage	10...30 VDC
DC rated operational current	≤ 100 mA
No-load current	≤ 15 mA
Output function	NO contact, dark operation, PNP
Switching frequency	≤ 235 Hz
Readiness delay	≤ 1000 ms
Response time typical	< 2.5 ms
Mechanical data	
Design	Tube, SB12
Dimensions	Ø 12 x 30.5 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Cable, 2 m, PVC
Number of cores	3
Core cross-section	0.34 mm ²
Ambient temperature	-20...+50 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing

Functional principle

Opposed mode sensors consist of an emitter and 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 targets. The excellent light/dark contrast and the high excess gain allow operation over larger distances and under difficult conditions.

Excess Gain Curve



Technical data

Excess gain indication

LED

Tests/approvals