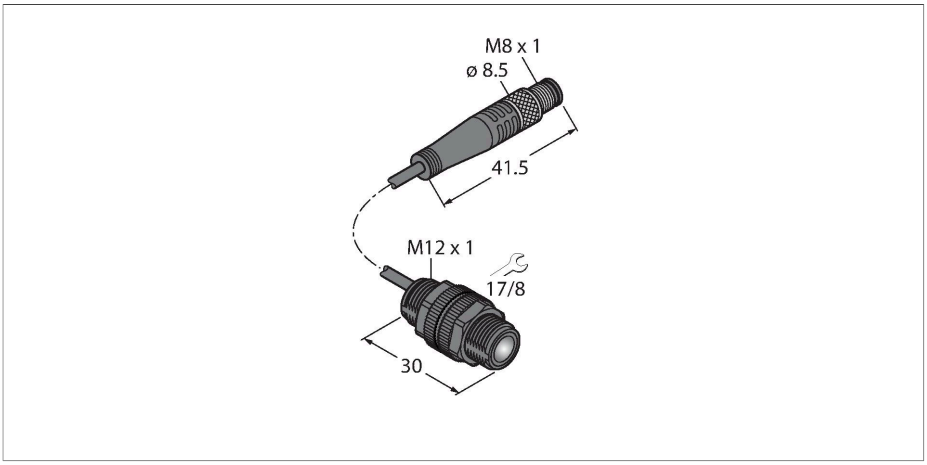
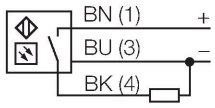
S12-2APRL-Q3
Photoelectric Sensor – Opposed Mode Sensor (Receiver)



Features

- Cable, PVC, black with M8 × 1 male end, 150 mm
- Protection class IP67
- Range: 20 m
- PNP switching output, light operation
- Operating voltage: 10…30 VDC

Wiring diagram



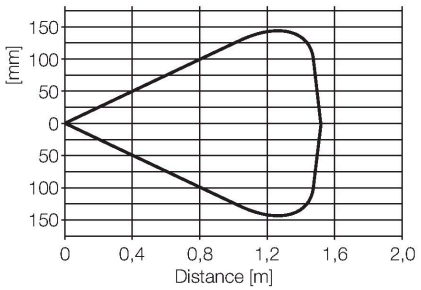
Technical data

Type	S12-2APRL-Q3
ID no.	3087417
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Wavelength	880 nm
Range	0…20 mm
Electrical data	
Operating voltage	10…30 VDC
No-load current	≤ 15 mA
Output function	NO contact, light operation, PNP
Switching frequency	≤ 55 Hz
Readiness delay	≤ 1 s
Readiness delay	≤ 1 ms
Response time typical	< 11 ms
Mechanical data	
Design	Threaded barrel, S12-2
Dimensions	Ø 12 x 30.4 mm
Housing material	Plastic, Thermoplastic material
Lens	Lexan, Polycarbonate
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	3
Core cross-section	0.34 mm²
Ambient temperature	-25…+50 °C
Protection class	IP67
Special features	Encapsulated

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

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED

Tests/approvals