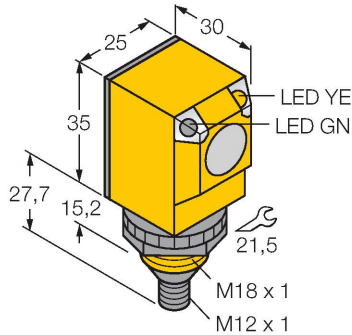


Q256EQ

Photoelectric Sensor – Opposed Mode Sensor (Emitter)



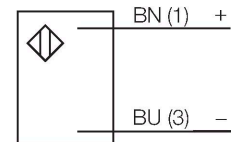
Technical data

Type	Q256EQ
ID	3031935
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	IR
Wavelength	950 nm
Range	0...20000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Mechanical data	
Design	Rectangular, Q25
Dimensions	Ø 18 x 30 x 25 x 62.7 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Cable, M12 × 1, PVC
Number of cores	2
Ambient temperature	-40...+70 °C
Protection class	IP69
Special features	Chemical-resistant Encapsulated Wash down
Power-on indication	LED, Green
Excess gain indication	LED

Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Operating voltage: 10...30 VDC

Wiring diagram



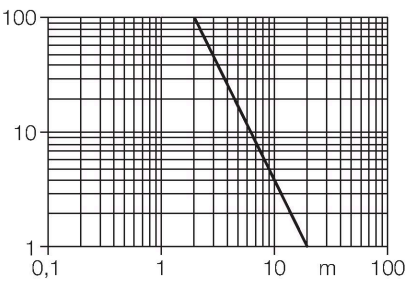
Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite to each other so that the light from the emitter is aimed 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
Excess gain in relation to the distance

Technical data

Tests/approvals	
Approvals	CE, UL, CSA



Accessories

SMB18A	3033200
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Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18AFAM10	3012558
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Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

SMB18SF	3052519
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Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

Accessories

Dimension drawing	Type	ID	
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com