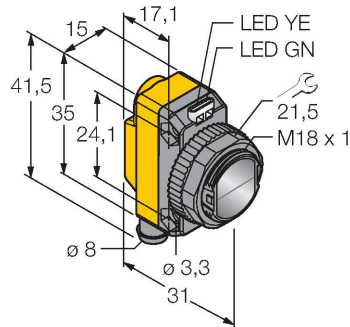


QS186EQ7

Photoelectric Sensor – Opposed Mode Sensor (Emitter)



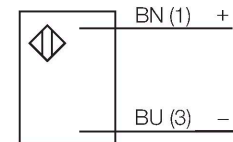
Technical data

Type	QS186EQ7
ID	3066425
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	IR
Wavelength	940 nm
Range	0...20000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Readiness delay	≤ 100 ms
Mechanical data	
Design	Rectangular with thread, QS18
Dimensions	Ø 18 x 31 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, Acrylic
Electrical connection	Connector, M8 × 1, PVC
Number of cores	4
Ambient temperature	-20...+70 °C
Protection class	IP67
Power-on indication	LED, Green
Excess gain indication	LED

Features

- Male connector, M8 × 1, 4-pin
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC

Wiring diagram



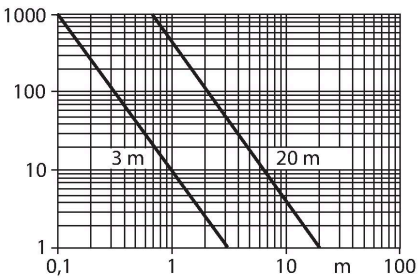
Functional principle

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 (type 6EB/RB)

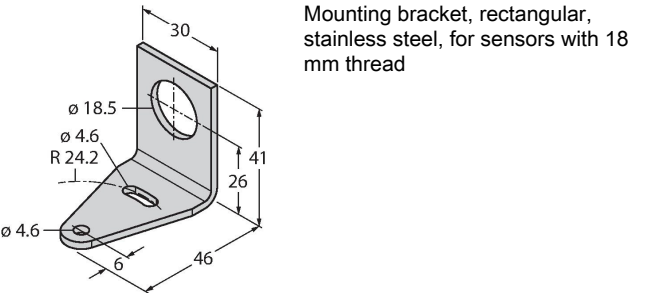
Technical data

Tests/approvals	
MTTF	530 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus

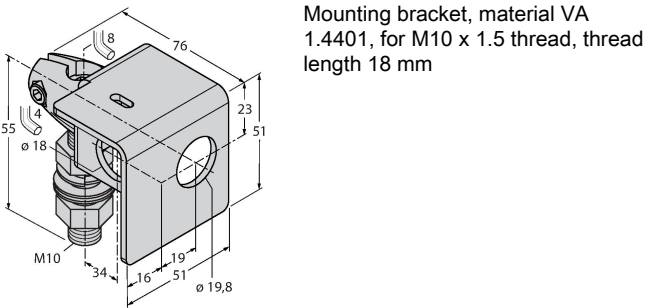


Accessories

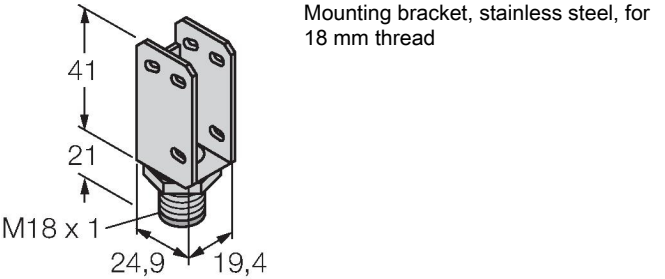
SMB18A	3033200
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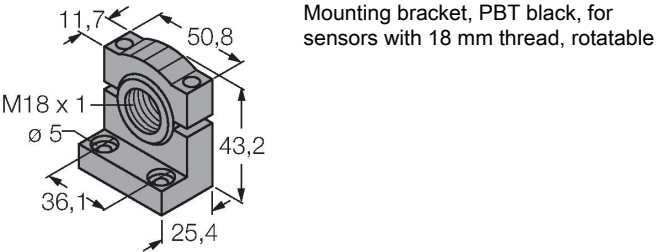
SMB18AFAM10	3012558
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SMBQS18A	3069721
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SMB18SF	3052519
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Accessories

Dimension drawing	Type	ID	
	PKG4M-2/TEL	6625061	Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	PKW4M-2/TEL	6625067	Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com