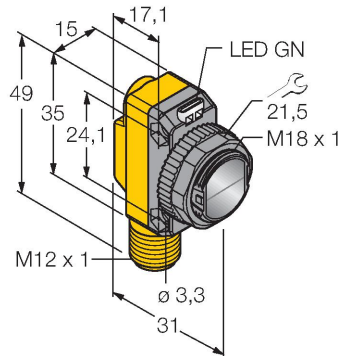


QS186LE12Q8

Photoelectric Sensor – Laser Emitter



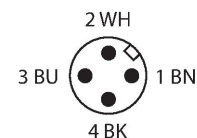
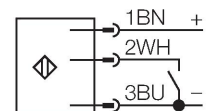
Technical data

Type	QS186LE12Q8
ID	3002759
Optical data	
Function	Opposed mode sensor
Operating mode	Laser Emitter
Light type	Red
Wavelength	650 nm
Laser class	▲ 1
Range	0...15000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
No-load current	≤ 35 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Readiness delay	≤ 250 ms
Mechanical data	
Design	Rectangular with thread, QS18
Dimensions	Ø 18 x 31 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, PMMA
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-10...+50 °C
Protection class	IP67
Special features	Laser

Features

- Male M12 × 1, 4-pin
- Protection class IP67
- LED all-round visible
- Male M12 × 1
- Laser class 1
- Horizontal line profile
- 418 x 2.5 mm at 1 m distance

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 high 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.

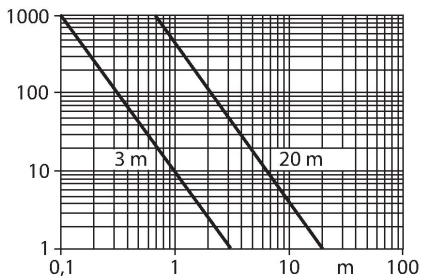
Activation

By connecting the control input (PIN 2 WH) to ground (-) the laser beam is turned on.

Technical data

Power-on indication	LED, Green
Excess gain indication	LED
Tests/approvals	
MTTF	530 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

The laser beam is turned off again by feeding 10 ... 30 VDC to the control input or by non-connecting the wire.
Excess gain curve
Excess gain in relation to the distance (type 6EB/RB)



Accessories

SMB18A3033200

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

SMB18AFAM103012558

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

SMBQS18A3069721

Mounting bracket, stainless steel, for 18 mm thread

SMB18SF3052519

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

Accessories

Dimension drawing	Type	ID	
Technical drawing of the RKC4.4T-2/TEL connection cable. The drawing shows a side view of the cable with a female M12 connector on the left and a 4-pin fork connector on the right. Dimensions are indicated: 11.5 mm for the connector body, 42 mm for the main cable length, 50 mm for the distance between the connectors, and 5 mm for the fork connector body. The M12 connector is labeled 'M12 x 1' and '14'. The fork connector is labeled '5'.	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

Dimension drawing	Type	ID	
	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