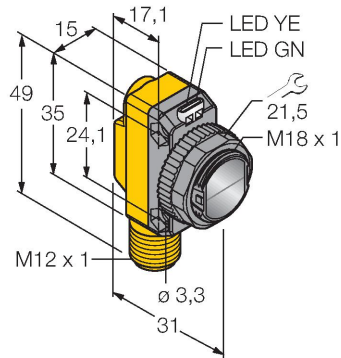


QS186LE210Q8 Photoelectric Sensor – Laser Emitter Circular Light Spot



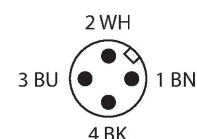
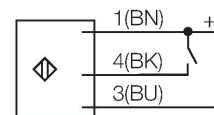
Technical data

Type	QS186LE210Q8
ID no.	3075960
Optical data	
Function	Opposed mode sensor
Operating mode	Laser Emitter
Light type	IR
Wavelength	650 nm
Range	0...15000 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	≤ 10 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	Connectors, M12 × 1, PVC
Number of cores	4
Ambient temperature	-10...+50 °C
Protection class	IP67
Power-on indication	LED, Green
Excess gain indication	LED

Features

- Male M12 × 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 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.

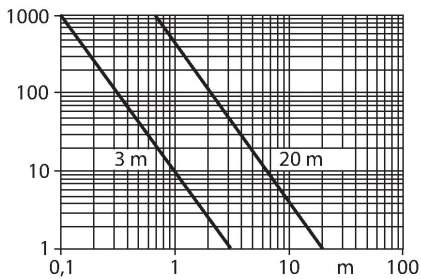
Activation

By connecting the control input (PIN 2 WH) to ground (-) the laser beam is turned on. The laser beam is turned off again by feeding

Technical data

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

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

Technical drawing of the SMB18A mounting bracket. It is a rectangular bracket made of stainless steel, designed for sensors with an 18 mm thread. The drawing shows the bracket from a side perspective, highlighting its L-shaped profile. Key dimensions include a top flange width of 30 mm, a vertical height of 41 mm, and a base width of 46 mm. A circular hole with a diameter of 18.5 mm is located on the top flange, and a smaller hole with a diameter of 4.6 mm is on the base. A radius of R 24.2 is indicated for the inner corner. A small hole with a diameter of 4.6 mm is also shown on the base.

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

SMB18AFAM103012558

Technical drawing of the SMB18AFAM10 mounting bracket. It is a rectangular bracket made of material VA 1.4401, designed for sensors with an M10 x 1.5 thread and a thread length of 18 mm. The drawing shows the bracket from a side perspective, highlighting its rectangular shape. Key dimensions include a top flange width of 76 mm, a vertical height of 51 mm, and a base width of 51 mm. A circular hole with a diameter of 18 mm is located on the top flange. A small hole with a diameter of 4 mm is also shown. The bracket is designed to be mounted on a surface with an M10 thread.

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

SMBQS18A3069721

Technical drawing of the SMBQS18A mounting bracket. It is a rectangular bracket made of stainless steel, designed for sensors with an 18 mm thread. The drawing shows the bracket from a side perspective, highlighting its rectangular shape. Key dimensions include a top flange width of 41 mm, a vertical height of 21 mm, and a base width of 19.4 mm. A circular hole with a diameter of 18 mm is located on the top flange. The bracket is designed to be mounted on a surface with an M18 x 1 thread.

Mounting bracket, stainless steel, for 18 mm thread

SMB18SF3052519

Technical drawing of the SMB18SF mounting bracket. It is a rectangular bracket made of PBT black, designed for sensors with an 18 mm thread and is rotatable. The drawing shows the bracket from a side perspective, highlighting its rectangular shape. Key dimensions include a top flange width of 50.8 mm, a vertical height of 43.2 mm, and a base width of 25.4 mm. A circular hole with a diameter of 18 mm is located on the top flange. The bracket is designed to be mounted on a surface with an M18 x 1 thread.

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

Accessories

Dimension drawing	Type	ID no.	
	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