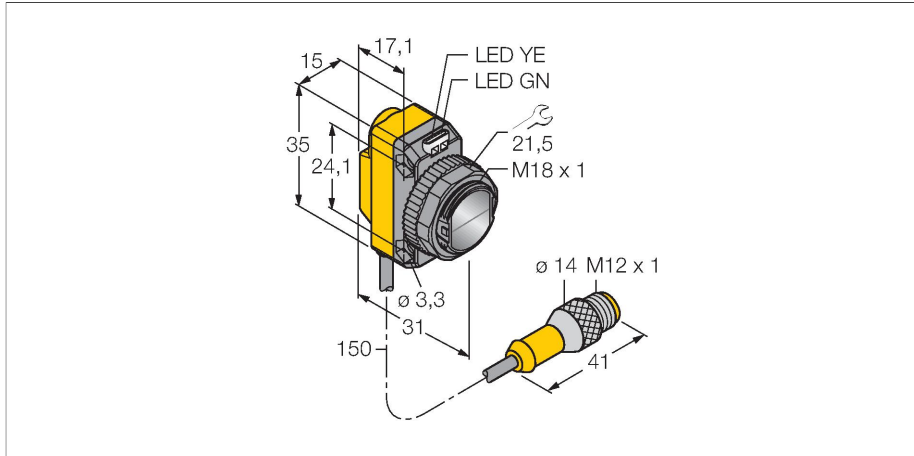


QS186LE14Q5

Photoelectric Sensor – Laser Emitter



Technical data

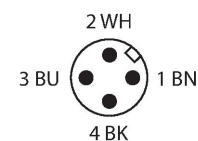
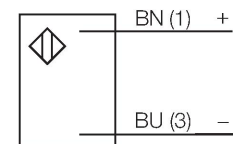
Type	QS186LE14Q5
ID no.	3071362
Optical data	
Function	Opposed mode sensor
Operating mode	Laser Emitter
Light type	Red
Wavelength	650 nm
Range	0...15000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Readiness delay	≤ 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	Cable with connector, M12 x 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-10...+50 °C
Protection class	IP67
Special features	Laser
Power-on indication	LED, Green



Features

- Cable with male end, M12 x 1, 4-pin, PVC, 150 mm
- 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.

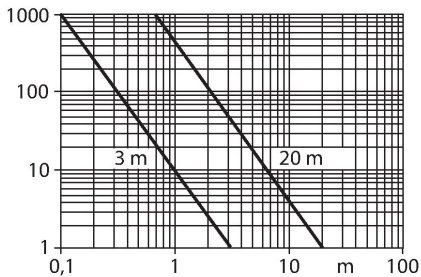
Activation

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 10 ... 30 VDC to the control input or by non-connecting the wire.

Technical data

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

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

Technical drawing of the SMB18A mounting bracket. It is a rectangular bracket made of stainless steel. Dimensions include: top width 30, bottom width 46, height 41, mounting hole diameter 18.5, mounting hole offset 4.6, mounting hole radius R 24.2, and mounting hole offset 26.

SMB18AFAM103012558

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

Technical drawing of the SMB18AFAM10 mounting bracket. It is a rectangular bracket made of material VA 1.4401. Dimensions include: top width 76, bottom width 51, height 23, mounting hole diameter 18, mounting hole offset 4, mounting hole radius R 24.2, and mounting hole offset 26.

SMBQS18A3069721

Mounting bracket, stainless steel, for 18 mm thread

Technical drawing of the SMBQS18A mounting bracket. It is a rectangular bracket made of stainless steel. Dimensions include: top width 41, bottom width 21, mounting hole diameter 18, mounting hole offset 4, mounting hole radius R 24.2, and mounting hole offset 26.

SMB18SF3052519

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

Technical drawing of the SMB18SF mounting bracket. It is a rectangular bracket made of PBT black. Dimensions include: top width 50.8, bottom width 43.2, height 25.4, mounting hole diameter 18, mounting hole offset 4, mounting hole radius R 24.2, and mounting hole offset 26.

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