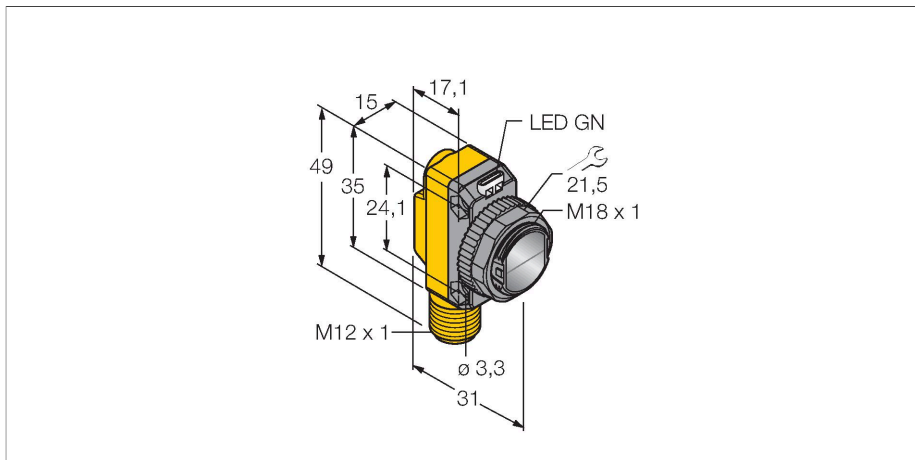


# QS186LE10Q8

## Photoelectric Sensor – Laser Emitter



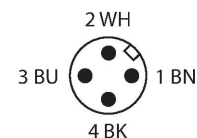
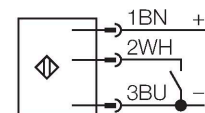
### Technical data

Type	QS186LE10Q8
ID no.	3070255
<b>Optical data</b>	
Function	Opposed mode sensor
Operating mode	Laser Emitter
Light type	Red
Wavelength	650 nm
Laser class	▲ 1
Range	0...15000 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
DC rated operational current	≤ 100 mA
No-load current	≤ 35 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Readiness delay	≤ 250 ms
<b>Mechanical data</b>	
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
Special features	Laser

### Features

- Male M12 × 1, 4-pin
- Protection class IP67
- LED all-round visible
- Male M12 × 1
- Laser class 1
- Circular beam profile
- Diameter: 40 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.

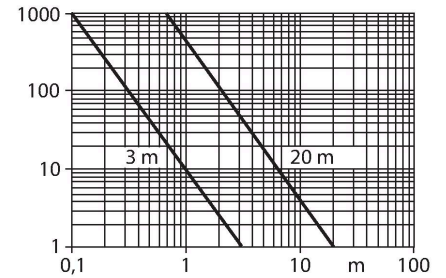
#### Activation

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

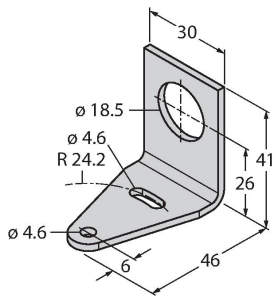
The laser beam is turned off again by feeding 10 ... 30 VDC to the control input or by non-connecting the wire.  
Excess gain curve  
Excess gain in relation to the distance (type 6EB/RB)



## Accessories

SMB18A

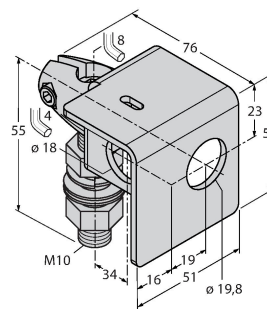
3033200



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

SMB18AFAM10

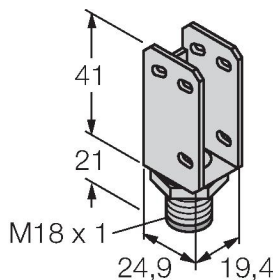
3012558



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

SMBQS18A

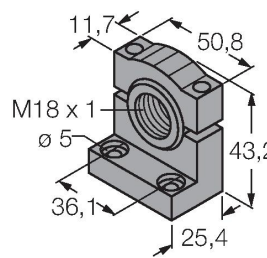
3069721



Mounting bracket, stainless steel, for 18 mm thread


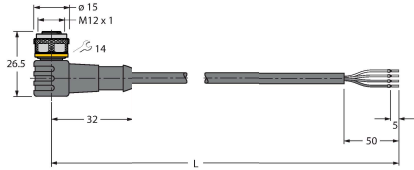
SMB18SF

3052519



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 <a href="http://www.turck.com">www.turck.com</a>
	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 <a href="http://www.turck.com">www.turck.com</a>