QS186LE2
Photoelectric Sensor – Laser Emitter

Technical data

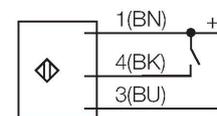|	
Type	QS186LE2
ID no.	3075951
Optical data	
Function	Opposed mode sensor
Operating mode	Laser Emitter
Light type	IR
Wavelength	650 nm
Laser class	⚠ 2
Range	0…15000 mm
Electrical data	
Operating voltage	10…30 VDC
Residual ripple	< 10 % U_{ss}
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Readiness delay	≤ 0.01 s
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	Cable, 2 m, PVC
Number of cores	2
Core cross-section	0.35 mm^2
Ambient temperature	-10…+50 °C
Protection class	IP67
Special features	Laser
Power-on indication	LED, Green
Excess gain indication	LED
Tests/approvals	
MTTF	530 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Cable 2 m
- Laser class 2

Wiring diagram

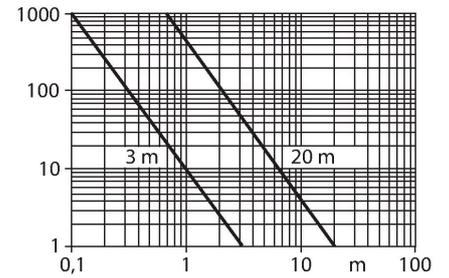1(BN) +
4(BK)
3(BU) −

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.
Excess gain curve
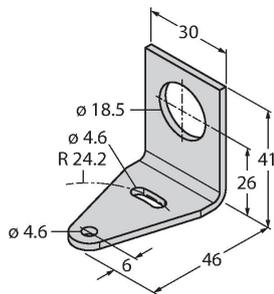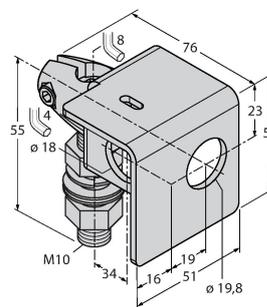Excess gain in relation to the distance (type 6EB/RB)

Accessories

SMB18A	3033200

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

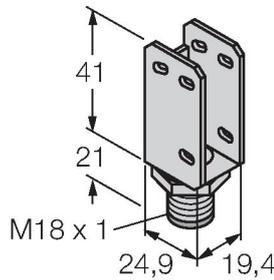| SMB18AFAM10	3012558

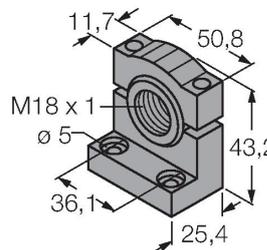Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

SMBQS18A	3069721

Mounting bracket, stainless steel, for 18 mm thread

SMB18SF	3052519

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