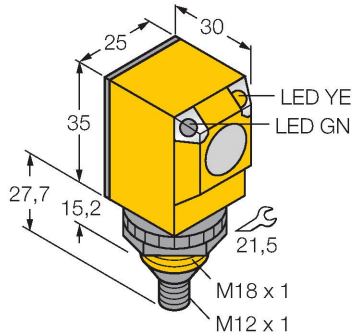


Q25SN6RQ

Photoelectric Sensor – Opposed Mode Sensor (Receiver)



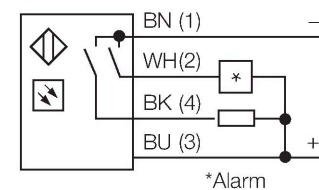
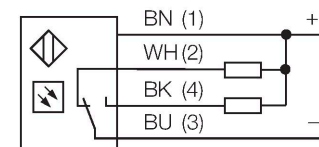
Technical data

Type	Q25SN6RQ
ID	3031936
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...20000 mm
Electrical data	
Operating voltage	10...30 VDC
No-load current	≤ 25 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	Connection programmable, NPN
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Overcurrent release	> 220 mA
Mechanical data	
Design	Rectangular, Q25
Dimensions	Ø 18 x 30 x 25 x 62.7 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP69
Special features	Chemical-resistant Encapsulated Wash down

Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Selectable light/dark operation or light operation with alarm function
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

Wiring diagram

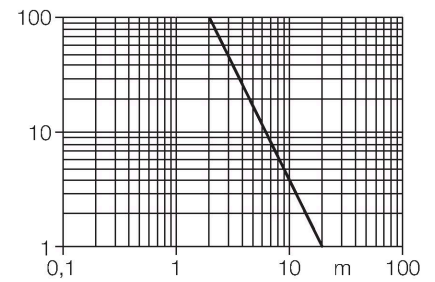


Functional principle

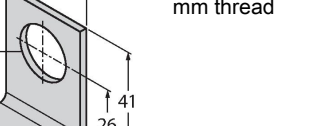
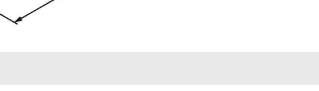
Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions. Excess gain curve
Excess gain in relation to the distance

Technical data

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, UL, CSA



Accessories

SMB18A  Technical drawing of the SMB18A mounting bracket. It is an L-shaped bracket made of stainless steel. The vertical leg has a height of 41 mm and a width of 30 mm. The horizontal leg has a length of 46 mm and a thickness of 6 mm. There is a circular hole with a diameter of 18.5 mm in the vertical leg and a slot with a width of 4.6 mm in the horizontal leg. The corner has a radius of 24.2 mm. The mounting hole in the horizontal leg has a diameter of 4.6 mm.	3033200 Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread
SMB18SF  Technical drawing of the SMB18SF mounting bracket. It is a rectangular bracket made of PBT black material. The overall dimensions are 50.8 mm in width and 43.2 mm in height. The mounting hole has a diameter of 18 mm and a thread of M18 x 1. The bracket has a base thickness of 11.7 mm and a mounting flange thickness of 25.4 mm. The distance between the mounting holes is 36.1 mm.	3052519 Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable
SMB18AFAM10  Technical drawing of the SMB18AFAM10 mounting bracket. It is a rectangular bracket made of material VA 1.4401. The overall dimensions are 76 mm in width and 51 mm in height. The mounting hole has a diameter of 18 mm and a thread of M10 x 1.5. The bracket has a base thickness of 8 mm and a mounting flange thickness of 23 mm. The distance between the mounting holes is 34 mm. The mounting hole has a diameter of 19.8 mm.	3012558 Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

Accessories

Dimension drawing	Type	ID	
	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