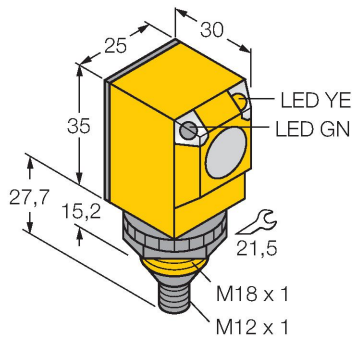


Q25SN6FF100Q

Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



Technical data

Type	Q25SN6FF100Q
ID	3031940
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	IR
Wavelength	880 nm
Range	0...100 mm
Electrical data	
Operating voltage	10...30 VDC
No-load current	≤ 35 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, Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-40...+70 °C

Features

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

Wiring diagram



Functional principle

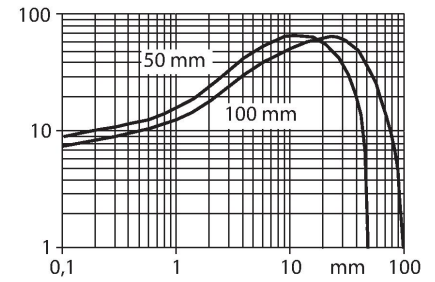
The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

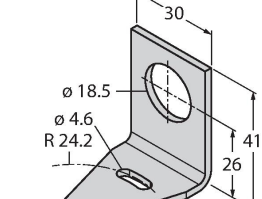
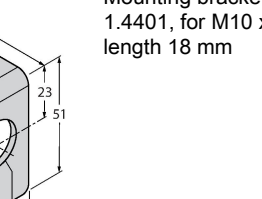
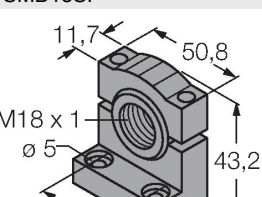
Excess gain in relation to the distance

Technical data

Protection class	IP69
Special features	Chemical-resistant Encapsulated Wash down
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	
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, UL, CSA



Accessories

SMB18A  Technical drawing of the SMB18A mounting bracket. It is a rectangular bracket made of stainless steel. The drawing shows a side view with dimensions: a top flange 30 mm wide and 41 mm high, a vertical plate 26 mm thick, and a base flange 46 mm wide and 6 mm high. There is a circular hole in the top flange with a diameter of 18.5 mm and a smaller hole in the base flange with a diameter of 4.6 mm. The base flange has a rounded corner with a radius of 24.2 mm. A small hole with a diameter of 4.6 mm is also shown in the base flange.	3033200 Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread	SMB18AFAM10  Technical drawing of the SMB18AFAM10 mounting bracket. It is a rectangular bracket made of material VA 1.4401. The drawing shows a side view with dimensions: a top flange 76 mm wide and 23 mm high, a vertical plate 51 mm high, and a base flange 34 mm wide and 16 mm high. There is a circular hole in the top flange with a diameter of 18 mm. The base flange has a rounded corner with a radius of 19.8 mm. A small hole with a diameter of 4 mm is also shown in the base flange. The bracket is designed for M10 x 1.5 thread, thread length 18 mm. Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm
SMB18SF  Technical drawing of the SMB18SF mounting bracket. It is a rectangular bracket made of PBT black. The drawing shows a side view with dimensions: a top flange 50.8 mm wide and 11.7 mm high, a vertical plate 43.2 mm high, and a base flange 36.1 mm wide and 25.4 mm high. There is a circular hole in the top flange with a diameter of 18 mm. The base flange has a rounded corner with a radius of 5 mm. A small hole with a diameter of 5 mm is also shown in the base flange. The bracket is designed for M18 x 1 thread, thread length 18 mm.	3052519 Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable	

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

Dimension drawing	Type	ID	
	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