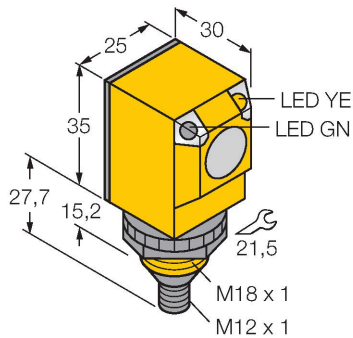


Q25S2P6FF100Q

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



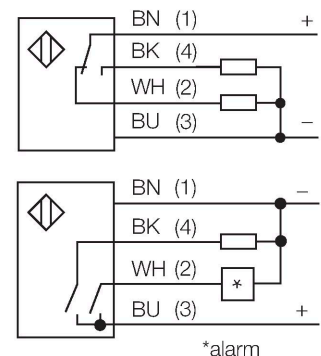
Technical data

Type	Q25S2P6FF100Q
ID	3045160
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	≤ 25 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	Connection programmable, PNP
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
- PNP switching output, changeover

Wiring diagram



Functional principle

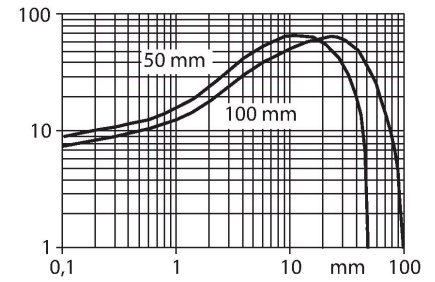
The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

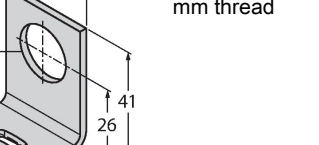
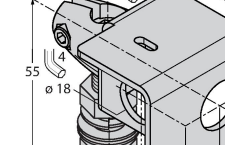
Excess gain in relation to the distance

Technical data

Protection class	IP69
Special features	Chemical-resistant Encapsulated
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 an L-shaped bracket with a rectangular body. The dimensions are: top horizontal edge 30, right vertical edge 41, bottom horizontal edge 46, and a small bottom-left flange with a width of 6. There are two circular holes: one on the vertical edge with a diameter of 18.5, and one on the horizontal edge with a diameter of 4.6. A fillet with a radius of 24.2 connects the two edges. The mounting hole on the horizontal edge has a diameter of 4.6.	3033200	SMB18AFAM10	3012558
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread	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 block with a threaded hole on the front face. The dimensions are: top edge 76, right edge 51, and a small top-right flange with a width of 8. The threaded hole has a diameter of 18 and a thread length of 18. The mounting hole on the front face has a diameter of 19.8. The bracket is designed for an M10 x 1.5 thread.	Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm
SMB18SF	3052519		
 Technical drawing of the SMB18SF mounting bracket. It is a rectangular block with a threaded hole on the front face. The dimensions are: top edge 50.8, right edge 43.2, and a small top-right flange with a width of 11.7. The threaded hole has a diameter of 18 and a thread length of 18. The mounting hole on the front face has a diameter of 19.8. The bracket is designed for an M10 x 1.5 thread.	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