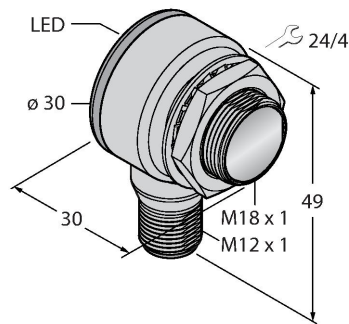


TM18VP6FF50Q8

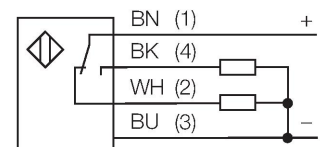
Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Metal housing
- Operating voltage: 10...30 VDC
- PNP switching output, light and dark operation

Wiring diagram

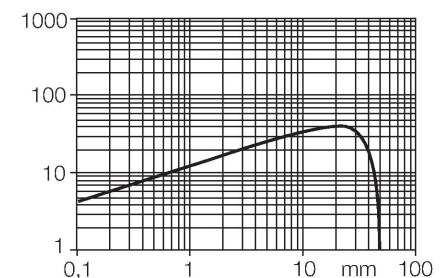


Functional principle

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



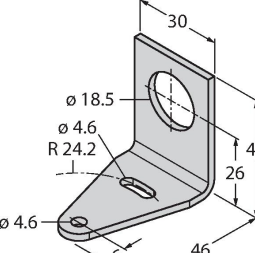
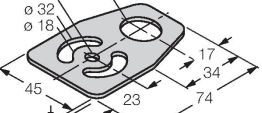
Technical data

Type	TM18VP6FF50Q8
ID	3042040
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	Red
Wavelength	660 nm
Range	0...50 mm
Electrical data	
Operating voltage	10...30 VDC
No-load current	≤ 25 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	Complementary contact, PNP
Switching frequency	≤ 220 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Mechanical data	
Design	Tube, TM18
Dimensions	Ø 18 x 30 x 30 x 49 mm
Housing material	Metal, Zinc Die-Cast with Nickel-Plating
Lens	plastic, Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP67

Technical data

	IP69
Special features	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

Accessories

SMBT18Y 3069554 mounting bracket, rectangular, for sensors with 18 mm thread, 15.3 mm cable feedthrough or M12 x 1 male	SMB18A 3033200 Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread  Technical drawing of the SMB18A mounting bracket. It is an L-shaped bracket with a vertical flange of width 30 mm and a horizontal base of width 46 mm. The vertical flange has a circular hole with a diameter of 18.5 mm. The horizontal base has a semi-circular end with a radius of R 24.2 mm and a small circular hole with a diameter of 4.6 mm. The corner of the bracket is rounded with a radius of 4.6 mm. The total height of the vertical flange is 41 mm, and the height of the horizontal base is 26 mm.
SMBAMS18P 3073134 Mounting bracket, stainless steel, for sensors with 18 mm thread  Technical drawing of the SMBAMS18P mounting bracket. It is a rectangular plate with overall dimensions of 45 mm by 74 mm. It features a central circular hole with a diameter of 19 mm and a smaller circular hole with a diameter of 18 mm. There are also two elongated slots, each 17 mm wide. The distance between the centers of the two circular holes is 32 mm. The distance from the left edge to the center of the 18 mm hole is 6.53 mm. The distance from the bottom edge to the center of the 18 mm hole is 2.6 mm. The distance from the right edge to the center of the 18 mm hole is 23 mm. The distance from the bottom edge to the center of the 19 mm hole is 34 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