

TM18AP6FF50Q5

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

Technical data

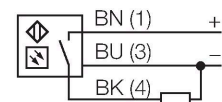
Type	TM18AP6FF50Q5
ID no.	3042060
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	Red
Wavelength	660 nm
Range	0...50 mm
Electrical data	
Operating voltage	10...30 VDC
No-load current	≤ 25 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	NO contact, light operation, PNP
Switching frequency	≤ 220 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Mechanical data	
Design	Rectangular with thread, TM18
Dimensions	Ø 18 x 30 x 30 x 41 mm
Housing material	Metal, Zinc Die-Cast with Nickel-Plating
Lens	plastic, Acrylic
Electrical connection	Cable with connector, M12 × 1, 0.15 m, PVC
Number of cores	4
Core cross-section	0.5 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP67 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



Features

- Cable with male end M12 × 1, 4-pin, PUR, 150 mm
- Protection class IP67
- Ambient temperature: -40 °C...+70 °C
- Metal housing
- Operating voltage: 10...30 VDC
- PNP switching output, light 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

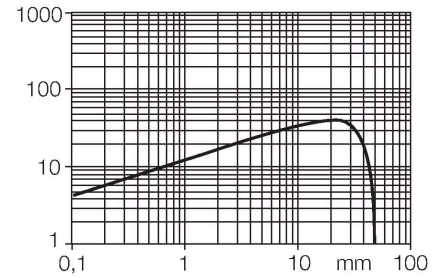
Excess gain in relation to the distance

Technical data

Tests/approvals

MTTF 448 years acc. to SN 29500 (Ed. 99) 40 °C

Approvals CE, UL



Accessories

SMBT18Y

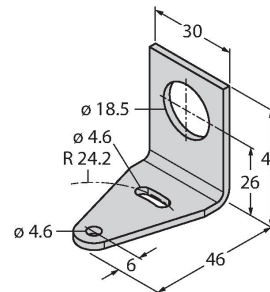
3069554

mounting bracket, rectangular, for sensors with 18 mm thread, 15.3 mm cable feedthrough or M12 x 1 male

SMB18A

3033200

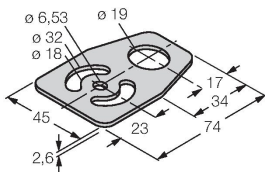
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread



SMBAMS18P

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



Accessories

Dimension drawing	Type	ID no.	
	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