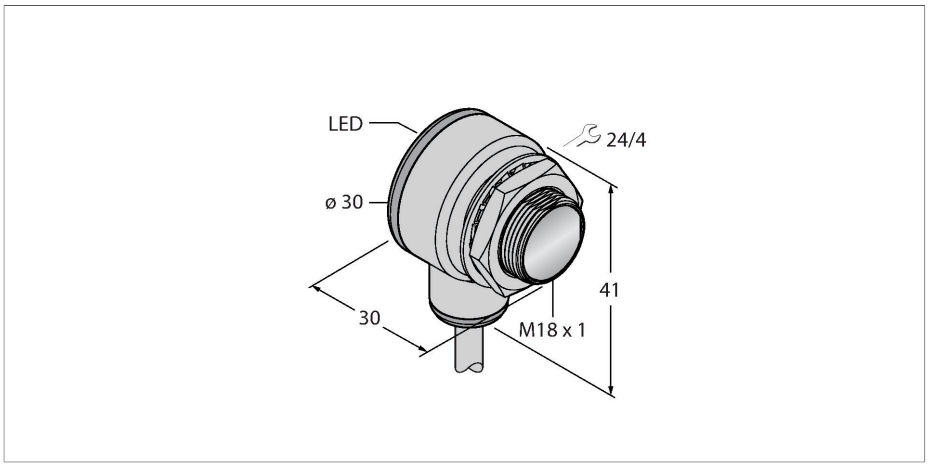
TM18VP6FF50
Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



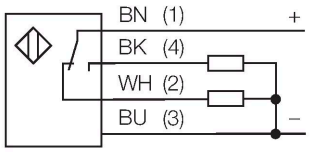
Technical data

Type	TM18VP6FF50
ID	3042039
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 41 mm
Housing material	Metal, Zinc Die-Cast with Nickel-Plating
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	4
Core cross-section	0.5 mm^2
Ambient temperature	-40…+70 °C

Features

- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40…+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.

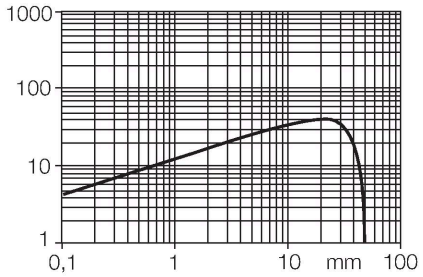
Excess gain curve

Excess gain in relation to the distance

TM18VP6FF50| 19-01-2022 03-09 | Technical modifications reserved

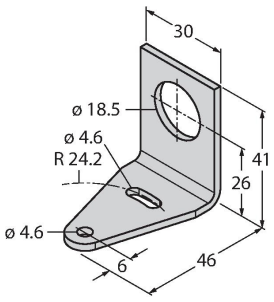
Technical data

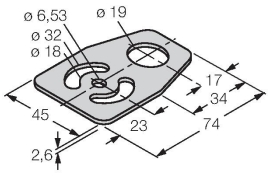
Protection class	IP67
Special features	Encapsulated Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, UL



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

SMBAMS18P	3073134
	Mounting bracket, stainless steel, for sensors with 18 mm thread

TM18VP6FF50| 19-01-2022 03-09 | Technical modifications reserved