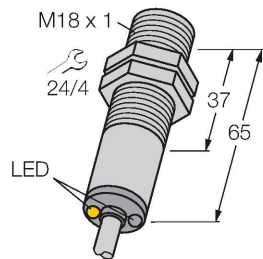


# M18SN6FF50

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



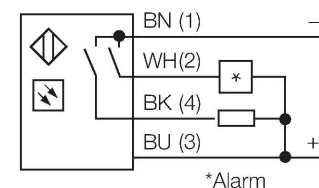
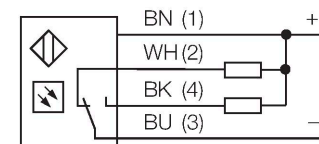
### Technical data

Type	M18SN6FF50
ID no.	3048668
<b>Optical data</b>	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	IR
Wavelength	880 nm
Range	0...50 mm
<b>Electrical data</b>	
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
<b>Mechanical data</b>	
Design	Threaded barrel, M18
Dimensions	Ø 18 x 65 mm
Housing material	Metal, Stainless steel
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	4
Core cross-section	0.5 mm <sup>2</sup>

### Features

- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Metal housing
- Connecting cable, 2 m

### Wiring diagram



### Functional principle

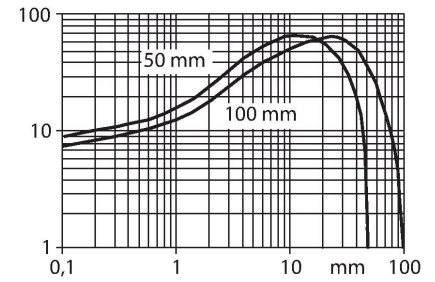
The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

## Technical data

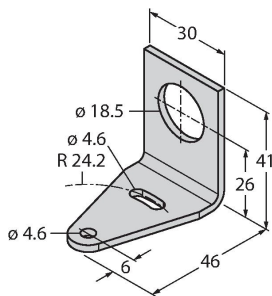
Ambient temperature	-40...+70 °C
Protection class	IP69
Special features	Chemical-resistant Encapsulated Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
<b>Tests/approvals</b>	
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE



## Accessories

## SMB18A

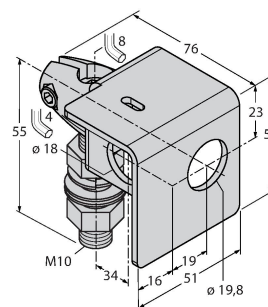
3033200



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

## SMB18AFAM10

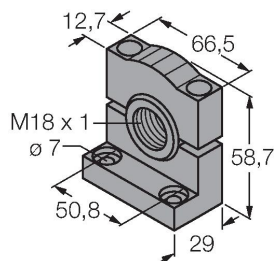
3012558



Mounting bracket, material VA  
1.4401, for M10 x 1.5 thread, thread  
length 18 mm

## SMB3018SC

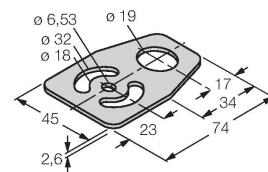
3053952



Mounting bracket, PTB black, for  
sensors with 18 mm thread

## SMBAMS18P

3073134



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