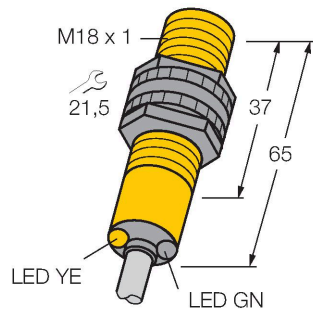


# S18AW3FF50 W/30

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



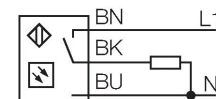
### Technical data

|                              |                                        |
|------------------------------|----------------------------------------|
| Type                         | S18AW3FF50 W/30                        |
| ID                           | 3033859                                |
| <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            | 20...250 VAC                           |
| AC rated operational current | ≤ 200 mA                               |
| Output function              | Light operation, Relay output          |
| Switching frequency          | ≤ 40 Hz                                |
| Readiness delay              | ≤ 100 ms                               |
| Response time typical        | < 16 ms                                |
| <b>Mechanical data</b>       |                                        |
| Design                       | Tube, S18                              |
| Dimensions                   | Ø 18 x 65 mm                           |
| Housing material             | Plastic, Thermoplastic material        |
| Lens                         | plastic, Acrylic                       |
| Electrical connection        | Cable, 9 m, PVC                        |
| Number of cores              | 3                                      |
| Core cross-section           | 0.5 mm <sup>2</sup>                    |
| Ambient temperature          | -40...+70 °C                           |
| Protection class             | IP67<br>IP69                           |

### Features

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

### Wiring diagram

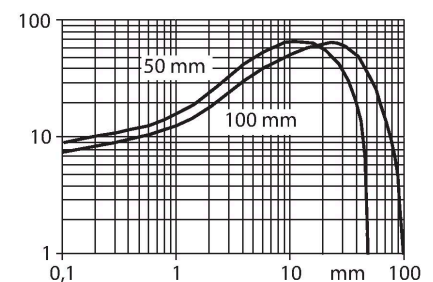


### Functional principle

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

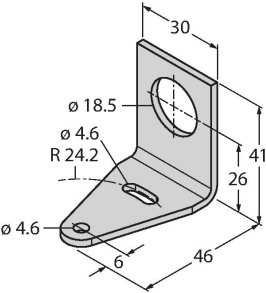


Technical data

|                        |                                           |
|------------------------|-------------------------------------------|
| Special features       | Encapsulated<br>Wash down                 |
| Power-on indication    | LED, Green                                |
| Switching state        | LED, Yellow                               |
| Excess gain indication | LED                                       |
| Tests/approvals        |                                           |
| MTTF                   | 448 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, UL, CSA                               |

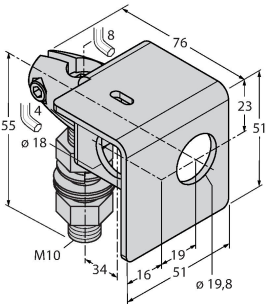
Accessories

SMB18A 3033200



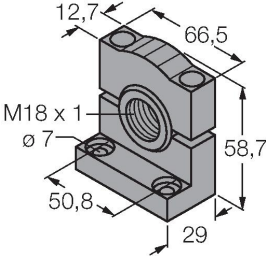
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18AFAM10 3012558



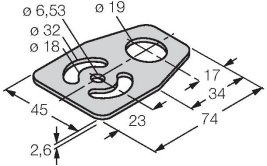
Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

SMB3018SC 3053952



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

SMBAMS18P 3073134



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