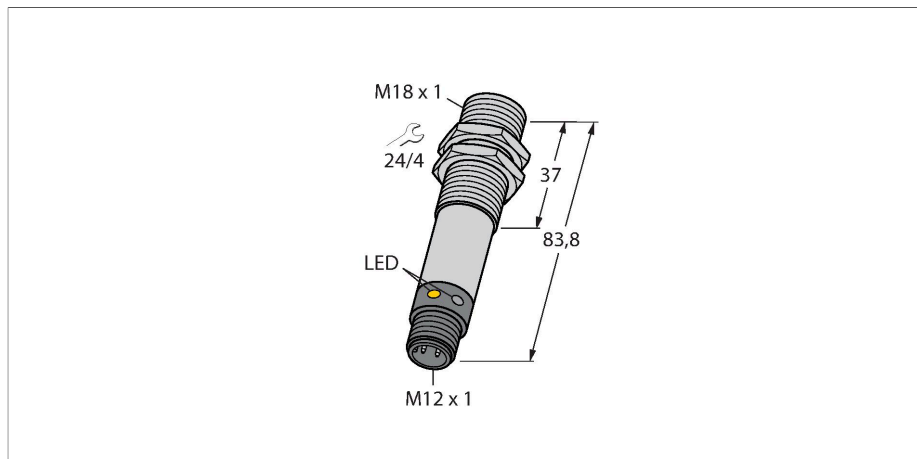


M18SP6FF50Q

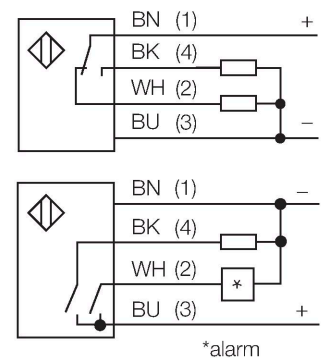
Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Metal housing
- Male M12 × 1

Wiring diagram



Technical data

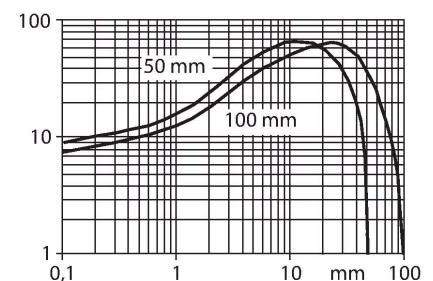
| | |
|-----------------------------|--|
| Type | M18SP6FF50Q |
| ID no. | 3048671 |
| Optical data | |
| Function | Proximity switch |
| Operating mode | Background suppression, non-adjustable |
| Light type | IR |
| Wavelength | 880 nm |
| Range | 0...50 mm |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| No-load current | ≤ 35 mA |
| Short-circuit protection | yes / Cyclic |
| Reverse polarity protection | yes |
| Output function | Connection programmable, PNP |
| Switching frequency | ≤ 160 Hz |
| Readiness delay | ≤ 100 ms |
| Response time typical | < 3 ms |
| Overcurrent release | > 220 mA |
| Mechanical data | |
| Design | Threaded barrel, M18 |
| Dimensions | Ø 18 x 83.8 mm |
| Housing material | Metal, Stainless steel |
| Lens | plastic, Acrylic |
| Electrical connection | Connectors, M12 × 1, PVC |
| Number of cores | 4 |
| Ambient temperature | -40...+70 °C |

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



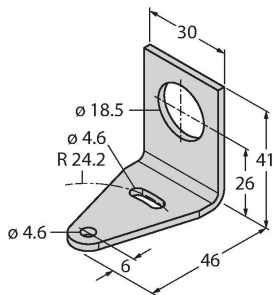
Technical data

| | |
|------------------------|---|
| Protection class | IP69 |
| Special features | Chemical-resistant Encapsulated Wash down Resistant to chemicals |
| 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 |

Accessories

SMB18A

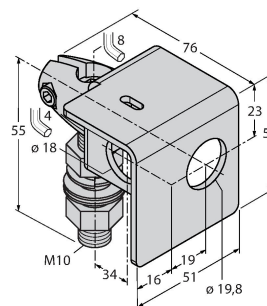
3033200



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

SMB18AFAM10

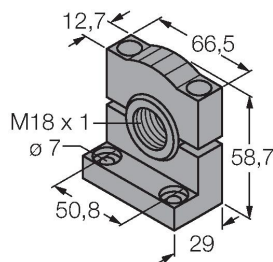
3012558



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

SMB3018SC

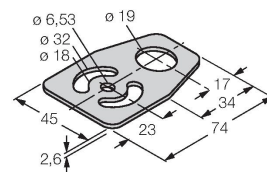
3053952



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


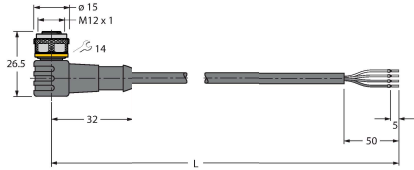
SMBAMS18P

3073134



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

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 |