

# T18S2P6FF25Q

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



### Features

- M12 × 1 male, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40...+70 °C
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

### Wiring diagram



### Technical data

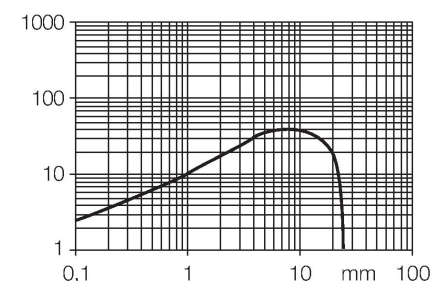
|                             |                                        |
|-----------------------------|----------------------------------------|
| Type                        | T18S2P6FF25Q                           |
| ID                          | 3058397                                |
| <b>Optical data</b>         |                                        |
| Function                    | Proximity switch                       |
| Operating mode              | Background suppression, non-adjustable |
| Light type                  | IR                                     |
| Wavelength                  | 880 nm                                 |
| Range                       | 0...25 mm                              |
| <b>Electrical data</b>      |                                        |
| Operating voltage           | 10...30 VDC                            |
| No-load current             | ≤ 25 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                               |
| <b>Mechanical data</b>      |                                        |
| Design                      | Tube, T18                              |
| Dimensions                  | Ø 18 x 30 x 30 x 54 mm                 |
| Housing material            | Plastic, Thermoplastic material        |
| Lens                        | plastic, Acrylic                       |
| Electrical connection       | Connector, 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

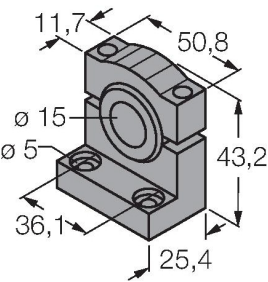


Technical data

|                        |                                                 |
|------------------------|-------------------------------------------------|
| Protection class       | IP67<br>IP69                                    |
| Special features       | Chemical-resistant<br>Encapsulated<br>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, CSA                                     |

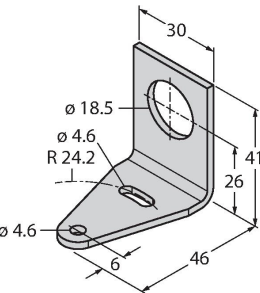
Accessories

SMB1815SF 3053279



Mounting bracket, PBT black, for PICO-GUARD points

SMB18A 3033200

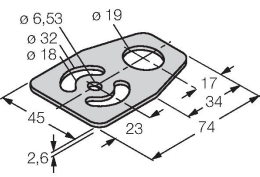


Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18FM 3079421

mounting bracket, black, M22 x1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread

SMBAMS18P 3073134



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

Accessories

| Dimension drawing | Type          | ID      |  |
|-------------------|---------------|---------|--|
|                   | 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](http://www.turck.com)

| Dimension drawing                                                                 | Type          | ID      |                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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 <a href="http://www.turck.com">www.turck.com</a> |