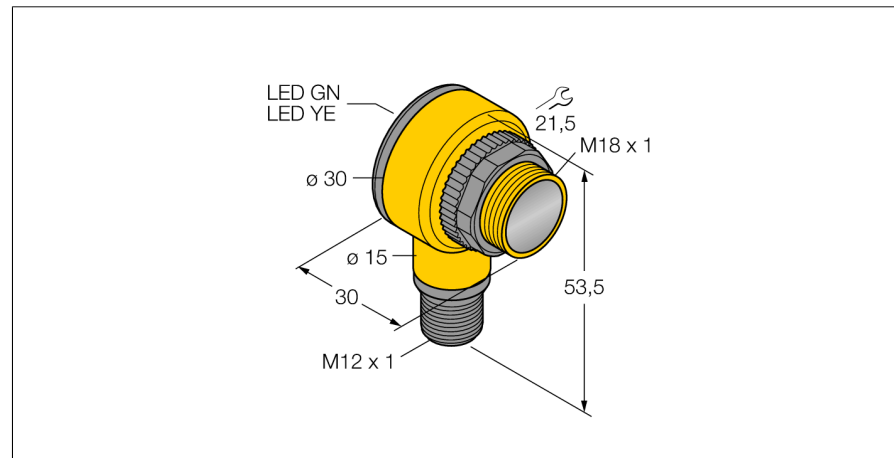


Photoelectric sensor
diffuse mode sensor with fixed-field background suppression
T18SP6FF100Q



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

Wiring Diagram

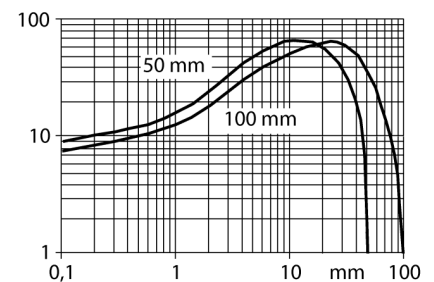


Functional principle

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

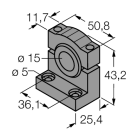
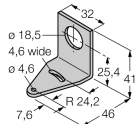
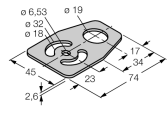
Excess gain in relation to the distance



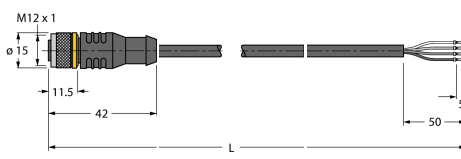
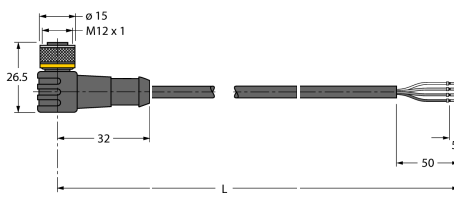
| | |
|--------------------------------|---|
| Type code | T18SP6FF100Q |
| Ident no. | 3033415 |
| Operating mode | diffuse mode sensor with fixed-field background suppression |
| Light type | IR |
| Wavelength | 880 nm |
| Reichweite | 0...100 mm |
| Ambient temperature | -40...+70 °C |
| Operating voltage | 10... 30VDC |
| No-load current I ₀ | ≤ 35 mA |
| Short-circuit protection | yes/ cyclic |
| Reverse polarity protection | yes |
| Output function | connection programmable, PNP |
| Switching frequency | ≤ 160 Hz |
| Readiness delay | ≤ 100 ms |
| Overcurrent release | > 220 mA |
| Approvals | CE, UL, CSA |
| Construction | threaded barrel, T18 |
| Dimensions | 30mm x 30mm x 54 mm |
| Housing material | plastic, PBT |
| Lens | plastic, acrylic |
| Connection | flange connector, M12 x 1 |
| Protection class | IP67 / IP69K |
| MTTF | 448 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | LED green |
| Switching state | LED yellow |
| Error indication | LED green flashing |
| Alarm display | LED yellow flashing |

**Photoelectric sensor
diffuse mode sensor with fixed-field background suppression
T18SP6FF100Q**

Accessories

| Type code | Ident no. | Description | Design |
|-----------|-----------|---|---|
| SMB1815SF | 3053279 | Mounting bracket, PBT black, for PICO-GUARD points |  |
| SMB18A | 3033200 | Mounting bracket, 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 |  |

Wiring accessories

| Type code | Ident no. | Description | Design |
|---------------|-----------|---|---|
| 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 |  |