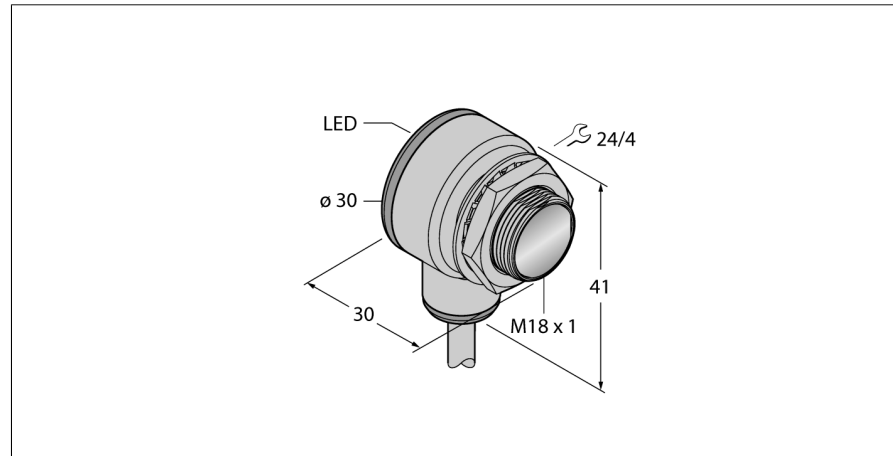
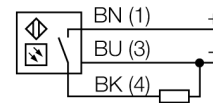


**Photoelectric sensor**  
**diffuse mode sensor with fixed-field background suppression**  
**TM18AP6FF25**



- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Metal housing
- Operating voltage: 10...30 VDC
- PNP switching output, light operation

**Wiring diagram**



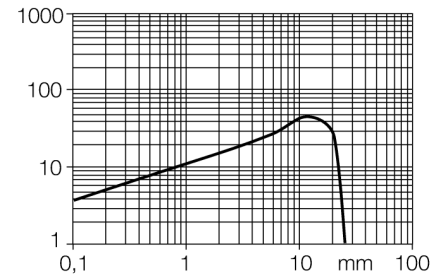
|                                |   |
|--------------------------------|---|
| <b>Type code</b>               | TM18AP6FF25   |
| Ident no.                      | 3042012   |
| <b>Operating mode</b>          | diffuse mode sensor with fixed-field background suppression |
| Light type                     | red   |
| Wavelength                     | 660 nm  |
| Range                          | 0...25 mm   |
| Ambient temperature            | -40...+70 °C  |
| <b>Operating voltage</b>       | 10...30VDC  |
| No-load current I <sub>0</sub> | ≤ 25 mA   |
| Short-circuit protection       | yes/ cyclic   |
| Reverse polarity protection    | yes   |
| Output function                | NO, light operation, PNP                                    |
| Switching frequency            | ≤ 220 Hz  |
| Readiness delay                | ≤ 100 ms  |
| <b>Design</b>                  | cylindrical/threaded, TM18                                  |
| Dimensions                     | 30 x 30 x 41 mm   |
| Housing material               | metal/plastic, CuZn   |
| Lens                           | plastic, acrylic  |
| Connection                     | cable   |
| Cable length                   | 2 m   |
| Cable cross section            | 3 x 0.5 mm <sup>2</sup>                                     |
| Protection class               | IP67  |
| MTTF                           | 448 years acc. to SN 29500 (Ed. 99) 40 °C                   |
| <b>Power-on indication</b>     | LED green   |
| Switching state                | LED yellow  |
| Error indication               | LED green flashing  |
| Alarm display                  | LED yellow flashing   |

**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.

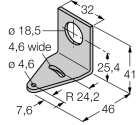
**Excess gain curve**

Excess gain in relation to the distance



**Photoelectric sensor  
diffuse mode sensor with fixed-field background suppression  
TM18AP6FF25**

**Accessories**

| Type code | Ident no. | Description   | Dimension drawing   |
|-----------|-----------|---|---|
| SMBT18Y   | 3069554   | mounting bracket, rectangular, for sensors with 18 mm thread, 15.3 mm cable feedthrough or M12 x 1 male |  |
| SMB18A    | 3033200   | Mounting bracket, stainless steel, for sensors with 18 mm thread  |   |
| SMBAMS18P | 3073134   | Mounting bracket, stainless steel, for sensors with 18 mm thread  |   |

