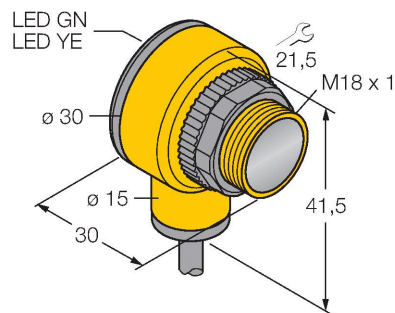


# T18RW3RE

## Photoelectric Sensor – Opposed Mode Sensor (Receiver)



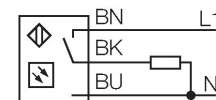
### Technical data

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Type                         | T18RW3RE                                        |
| ID                           | 3037065                                         |
| <b>Optical data</b>          |                                                 |
| Function                     | Opposed mode sensor                             |
| Operating mode               | Emitter/receiver pair                           |
| Range                        | 0...20000 mm                                    |
| <b>Electrical data</b>       |                                                 |
| Operating voltage            | 20...250 VAC                                    |
| AC rated operational current | ≤ 200 mA                                        |
| Output function              | Dark operation, Relay output                    |
| Switching frequency          | ≤ 40 Hz                                         |
| Readiness delay              | ≤ 100 ms                                        |
| Response time typical        | < 16 ms                                         |
| <b>Mechanical data</b>       |                                                 |
| Design                       | Tube, T18                                       |
| Dimensions                   | Ø 18 x 30 x 30 x 41.5 mm                        |
| Housing material             | Plastic, Thermoplastic material                 |
| Lens                         | plastic, Polycarbonate                          |
| Electrical connection        | Cable, 2 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                                    |
| Special features             | Chemical-resistant<br>Encapsulated<br>Wash down |
| Power-on indication          | LED, Green                                      |

### Features

- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Selectable light/dark operation or light operation with alarm function

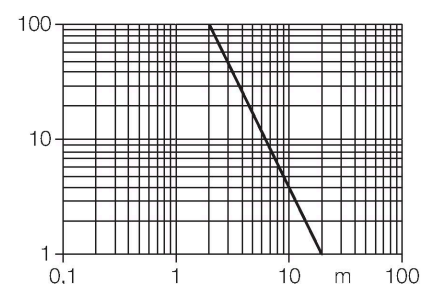
### Wiring diagram



### Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions. Excess gain curve

Excess gain in relation to the distance

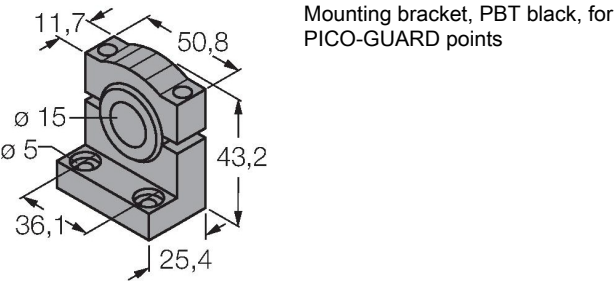


Technical data

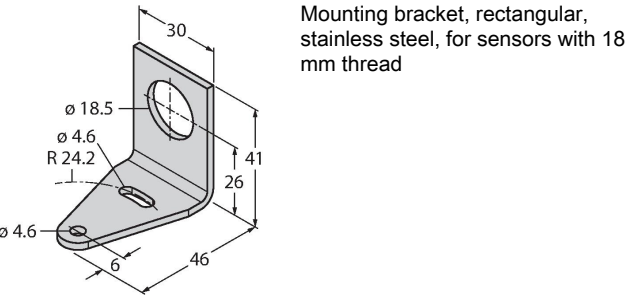
|                        |             |
|------------------------|-------------|
| Switching state        | LED, Yellow |
| Excess gain indication | LED         |
| Tests/approvals        |             |
| Approvals              | CE, UL, CSA |

Accessories

SMB1815SF 3053279



SMB18A 3033200



SMB18FM 3079421

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

SMBAMS18P 3073134

