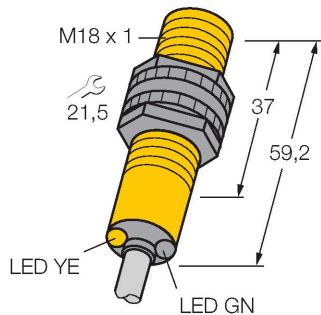


# RO20M-BS18-VP6X2E

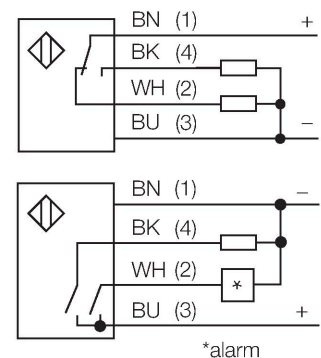
## Photoelectric Sensor – Opposed Mode Sensor (Receiver)



### Features

- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Selectable light/dark operation or light operation with alarm function
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

### Wiring diagram



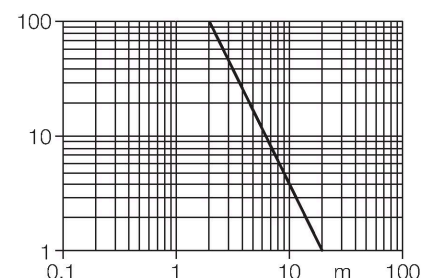
### Technical data

|                             |                                |
|-----------------------------|--------------------------------|
| Type                        | RO20M-BS18-VP6X2E              |
| ID                          | 7700630                        |
| Function                    | Opposed mode sensor (receiver) |
| Range                       | 0...20000 mm                   |
| 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                       |
| Overcurrent release         | > 220 mA                       |
| Design                      | Cylinder, threaded, S18        |
| Dimensions                  | Ø 18 mm                        |
| Housing material            | Plastic, PBT                   |
| Lens                        | plastic, Lexan                 |
| Electrical connection       | Cable, 2 m, PVC                |
| Number of cores             | 4                              |
| Core cross-section          | 0.5 mm <sup>2</sup>            |
| Ambient temperature         | -40...+70 °C                   |
| Protection class            | IP67                           |
| Special features            | Wash down                      |
| Power-on indication         | LED, Green                     |
| Switching state             | LED, Yellow                    |
| Error indication            | LED, green, flashing           |
| Alarm display               | LED yellow flashing            |

### Functional principle

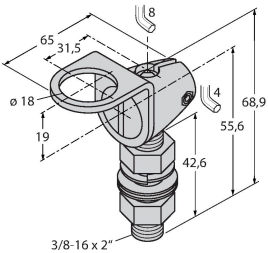
Opposed mode sensors consist of an emitter and a receiver. They are installed opposite to each other whereby the emitted light aims directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque objects. The high light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions.

Excess gain curve  
Excess gain in relation to distance



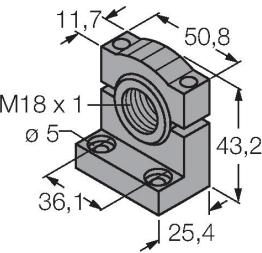
Accessories

TMBM18FA 7700395



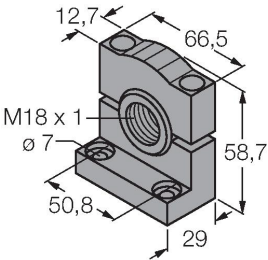
Mounting bracket; material VA 1.4401, for 18 mm thread

TMB18SF 7700396



Mounting bracket, PBT black, for 10 mm thread

TMB3018SC 7700397



Mounting bracket, PBT black, for 18 mm thread