



# Safety thru-beam sensor

## TWIN-PRO-20M-OSE-13m-SET

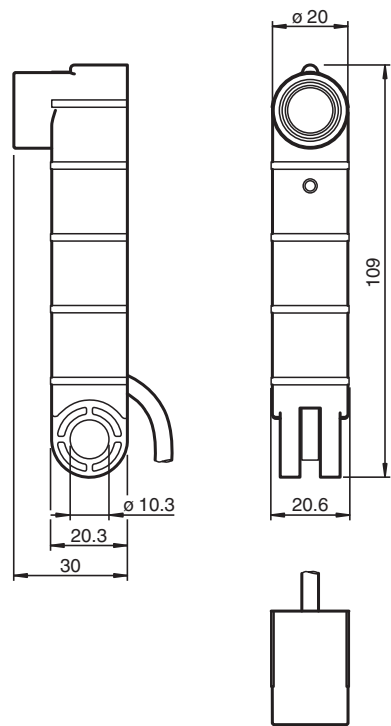


- Sturdy housing
- Sensing range 20 m
- Sleek design
- Simple alignment
- Indicator LED on the front
- Not sensitive to ambient light
- High degree of protection (IP67), fully encapsulated

Safety thru-beam sensor



### Dimensions



### Technical Data

|                                       |                                 |
|---------------------------------------|---------------------------------|
| <b>System components</b>              |                                 |
| Emitter                               | TWIN-SAFE-T                     |
| Receiver                              | TWIN-SAFE-R                     |
| <b>General specifications</b>         |                                 |
| Effective detection range             | 1 ... 20 m                      |
| Threshold detection range             | 28 m                            |
| Number of protective field beams      | 1                               |
| Light source                          | IRED                            |
| Light type                            | modulated infrared light 850 nm |
| Safety type according to IEC/EN 61496 | 2                               |

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## Technical Data

|                                   |                |                                                                                                                  |
|-----------------------------------|----------------|------------------------------------------------------------------------------------------------------------------|
| Marking                           |                | CE                                                                                                               |
| Diameter of the light spot        |                | approx. 1.1 m at a distance of 20 m                                                                              |
| Opening angle                     |                | ± 5 °                                                                                                            |
| Optical face                      |                | frontal                                                                                                          |
| Ambient light limit               |                | 100000 Lux                                                                                                       |
| <b>Indicators/operating means</b> |                |                                                                                                                  |
| Operation indicator               |                | Receiver: LED green                                                                                              |
| Function indicator                |                | emitter<br>LED red: lit when the light beam is interrupted<br>LED green: lights up when light beam is free       |
| Stability alarm indicator         |                | Emitter: flashing red/green                                                                                      |
| <b>Electrical specifications</b>  |                |                                                                                                                  |
| Operating voltage                 | U <sub>B</sub> | 10 ... 24 V DC                                                                                                   |
| Operating current                 | I <sub>B</sub> | Emitter: 20 mA<br>Receiver: 20 mA                                                                                |
| <b>Output</b>                     |                |                                                                                                                  |
| Output type                       |                | OSE                                                                                                              |
| Switching type                    |                | light-on                                                                                                         |
| Signal output                     |                | 900 Hz , transistor output loadable with max. 20 mA, short-circuit protected                                     |
| Switching voltage                 |                | max. 50 V AC/DC                                                                                                  |
| Switching current                 |                | max. 0.6 A                                                                                                       |
| Energized/De-energized delay      |                | typ. 100 ms                                                                                                      |
| Response time                     |                | ≤ 20 ms                                                                                                          |
| <b>Conformity</b>                 |                |                                                                                                                  |
| Functional safety                 |                | ISO 13849-1 , Cat. 2 PL c                                                                                        |
| Product standard                  |                | EN 61000-6-2, EN 61000-6-3 , EN 12978                                                                            |
| <b>Approvals and certificates</b> |                |                                                                                                                  |
| <b>Ambient conditions</b>         |                |                                                                                                                  |
| Ambient temperature               |                | -25 ... 55 °C (-13 ... 131 °F)                                                                                   |
| Storage temperature               |                | -25 ... 55 °C (-13 ... 131 °F)                                                                                   |
| Relative humidity                 |                | max. 95 %, not condensing                                                                                        |
| <b>Mechanical specifications</b>  |                |                                                                                                                  |
| Degree of protection              |                | IP67 according to EN 60529                                                                                       |
| Connection                        |                | fixed black cable<br>Emitter: 0.14 mm <sup>2</sup> , 3 conductor<br>Receiver: 0.14 mm <sup>2</sup> , 3 conductor |
| <b>Material</b>                   |                |                                                                                                                  |
| Housing                           |                | PA6 with 30 % glass fiber content                                                                                |
| Mass                              |                | approx. 300 g                                                                                                    |
| <b>Dimensions</b>                 |                |                                                                                                                  |
| Height                            |                | 108 mm                                                                                                           |
| Width                             |                | 20 mm                                                                                                            |
| Depth                             |                | 30 mm                                                                                                            |