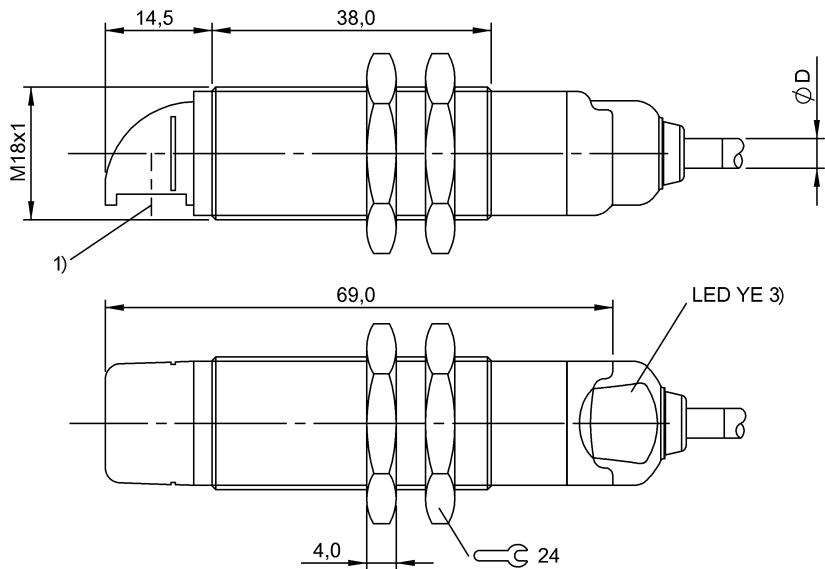




1) Optical axis, 2) Operating voltage



Basic features

|                        |                            |
|------------------------|----------------------------|
| Approval/Conformity    | CE<br>cULus<br>EAC<br>WEEE |
| Basic standard         | IEC 60947-5-2              |
| Principle of operation | Photoelectric sensor       |
| Reference receiver     | BOS 18MR...-LE10-..        |
| Series                 | 18MR                       |
| Style                  | Cylinder<br>Optics 90°     |

Display/Operation

|         |                  |
|---------|------------------|
| Display | LED green: Power |
|---------|------------------|

Electrical connection

|                             |                      |
|-----------------------------|----------------------|
| Cable diameter D            | 4.00 mm              |
| Cable length L              | 2 m                  |
| Conductor cross-section     | 0.14 mm <sup>2</sup> |
| Connection                  | Cable, 2.00 m, PVC   |
| Number of conductors        | 3                    |
| Polarity reversal protected | yes                  |

Electrical data

|                                                       |                    |
|-------------------------------------------------------|--------------------|
| Input function                                        | Test (Emitter off) |
| No-load current I <sub>o</sub> max. at U <sub>e</sub> | 30 mA              |
| Operating voltage U <sub>b</sub>                      | 10...30 VDC        |
| Protection class                                      | II                 |
| Rated insulation voltage U <sub>i</sub>               | 75 V DC            |
| Rated operating voltage U <sub>e</sub> DC             | 24 V               |
| Ripple max. (% of U <sub>e</sub> )                    | 8 %                |

Environmental conditions

|                         |                                        |
|-------------------------|----------------------------------------|
| Ambient temperature     | -10...50 °C                            |
| EN 60068-2-27, Shock    | Half-sinus, 50 gn, 500 ms, 3x3         |
| EN 60068-2-6, Vibration | 10...55 Hz, amplitude 0.5 mm, 3x30 min |
| IP rating               | IP67                                   |

Functional safety

|              |        |
|--------------|--------|
| MTTF (40 °C) | 1104 a |
|--------------|--------|

Material

|                          |                      |
|--------------------------|----------------------|
| Housing material         | Brass, nickel-plated |
| Material jacket          | PVC                  |
| Material sensing surface | PMMA                 |
| Surface protection       | nickel-plated        |

Mechanical data

|                        |              |
|------------------------|--------------|
| Dimension              | Ø 18 x 79 mm |
| Mounting part          | Nut M18x1    |
| Tightening torque max. | 22 Nm        |

Optical features

|                                |                               |
|--------------------------------|-------------------------------|
| Average power Po max.          | 390 µW                        |
| Laser class per IEC 60825-1    | 1                             |
| Light type                     | Laser red light               |
| Principle of optical operation | Through-beam sensor (Emitter) |
| Pulse duration t max.          | 6.0 µs                        |
| Pulse frequency                | 25 kHz                        |
| Wave length                    | 650 nm                        |

Range/Distance

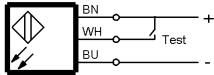
|                             |                  |
|-----------------------------|------------------|
| Range                       | 0...50 m         |
| Rated operating distance Sn | 50 m, Adjustable |

Remarks

For additional information, refer to user's guide.  
Order accessories separately.  
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

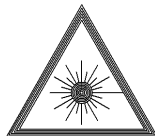
Wiring Diagrams (Schematic)



Opto Symbols



Warning Symbols



LASER CLASS 1 per IEC 60825-1