

1) Optical axis, 2) Operating voltage



Basic features

| | |
|------------------------|-----------------------------|
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Photoelectric sensor |
| Reference receiver | BOS 18M-...-IE21-... |
| Scope of delivery | 2x nut M18x1 User manual |
| Series | 18M |
| Style | Cylinder Straight optics |

Display/Operation

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|----------|------------------|
| Adjuster | no |
| Display | LED green: Power |

Electrical connection

| | |
|-----------------------------------|------------------------------|
| Connection | Connector, M12x1-Male, 4-pin |
| Contact, surface protection | Gold plated |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |

Electrical data

| | |
|-------------------------------------|--------------------|
| Input function | Test (Emitter off) |
| No-load current I_0 max. at U_e | 30 mA |
| Operating voltage U_b | 10...30 VDC |
| Protection class | II |
| Rated insulation voltage U_i | 75 V DC |
| Rated operating voltage U_e DC | 24 V |
| Ripple max. (% of U_e) | 15 % |

Environmental conditions

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|-------------------------|--|
| Ambient temperature | -5...55 °C |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, 30 gn, 11 ms, 3x6 Half-sinus, 100 gn, 2 ms, 3x8000 |
| EN 60068-2-6, Vibration | 10...55 Hz, amplitude 1 mm, 3x30 min 10...2000 Hz, amplitude 1 mm, 30 gn, 3x5 h |
| IP rating | IP67 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 950 a |
|--------------|-------|

Material

| | |
|--------------------------------------|----------------------|
| Housing material | Brass, nickel-plated |
| Housing material, surface protection | nickel-plated |
| Material sensing surface | Glass, anti-glare |
| Surface protection | nickel-plated |

Mechanical data

| | |
|------------------------|----------------|
| Dimension | Ø 18 x 75 mm |
| Mounting part | Nut M18x1 |
| Tightening torque max. | 15 Nm 30 Nm |

Optical features

| | |
|--------------------------------|-------------------------------|
| Beam characteristic | Divergent |
| LED group per IEC 62471 | Exempt Group |
| Light type | LED infrared |
| Principle of optical operation | Through-beam sensor (Emitter) |
| Wave length | 850 nm |

Range/Distance

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

Remarks

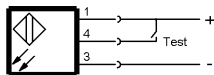
For additional information, refer to user's guide.
Order accessories separately.
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

Connector Drawings



Wiring Diagrams



Opto Symbols

