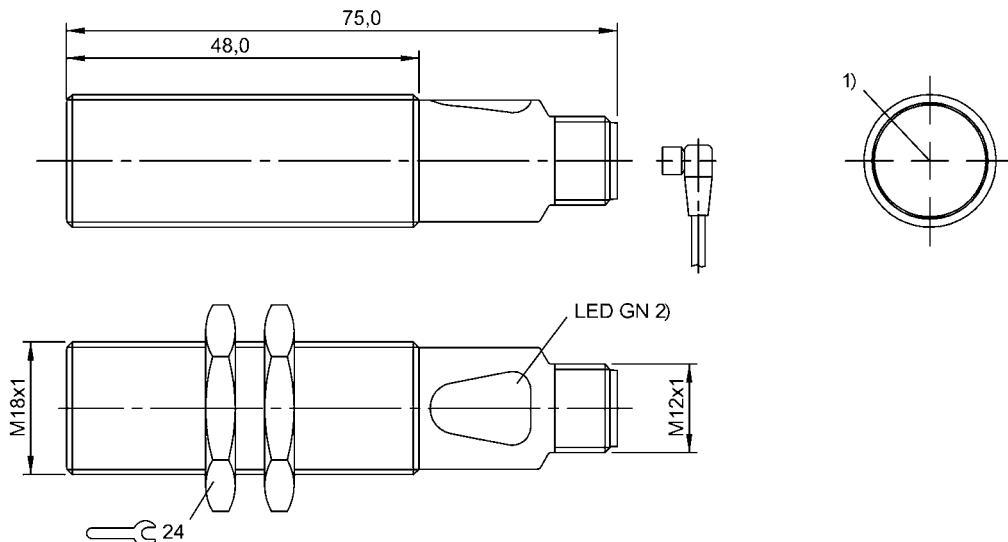


Photoelectric Sensors
BOS 18M-XI-RS30-S4
Order Code: BOS01UF

BALLUFF



1) Optical axis, 2) Operating voltage



Basic features

| | |
|------------------------|-----------------------------|
| Approval/Conformity | cULus CE UKCA WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Photoelectric sensor |
| Reference receiver | BOS 18M-PI-RE30-S4 |
| Series | 18M |
| Style | Cylinder Straight optics |

Display/Operation

| | |
|----------|------------------|
| 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

| | |
|---------------------------------------|-------------|
| No-load current $I_{0 \max}$ at U_e | 40 mA |
| Operating voltage U_b | 18...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

| | |
|-------------------------|--|
| Ambient temperature | -5...55 °C |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, 30 g _n , 11 ms, 3x6 |
| EN 60068-2-6, Vibration | 10...55 Hz, amplitude 0.5 mm, 3x30 min |
| IP rating | IP67 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 631 a |
|--------------|-------|

IO-Link

| | |
|--------------------|-------------|
| IO-Link Profil IDs | 0x0001 SSP0 |
|--------------------|-------------|

Interface

| | |
|------------------------------|-------------------------------|
| Baud rate | 38.4 kBaud |
| Function class, smart sensor | Diagnostics Identification |
| Interface | IO-Link 1.1 |
| Interface setting option | Sensor name in application |
| Process data OUT | Error active/inactive |
| Process data cycle min. | 3 ms |
| Profile | Smart Sensor |

Material

| | |
|--------------------------|----------------------|
| Housing material | Brass, nickel-plated |
| Material sensing surface | Glass |
| 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

| | |
|--------------------------------|-------------------------------|
| LED group per IEC 62471 | Risk group 1 |
| Light type | LED, red light |
| Principle of optical operation | Through-beam sensor (Emitter) |
| Wave length | 626 nm |

Range/Distance

| | |
|-----------------------------|----------|
| Range | 0...20 m |
| Rated operating distance Sn | 20 m |

Remarks

For additional information, refer to user's guide.

Order accessories separately.

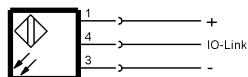
For more information about MTTF and B10d see MTTF / B10d Certificate

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

