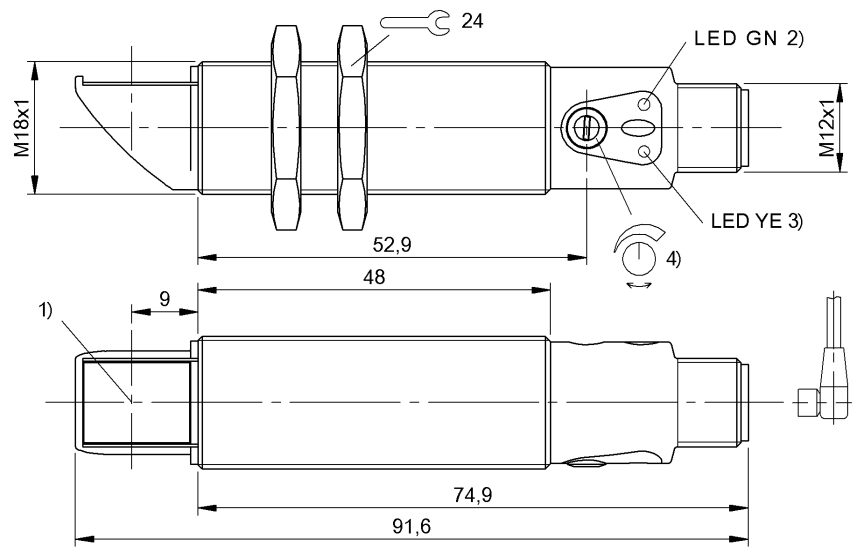




1) Optical axis, 2) Operating voltage, 3) Sn, 4) Light reception/limit area



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Operating mode	SIO Mode IO-Link Mode
Principle of operation	Photoelectric sensor
Reference emitter	BOS 18MR-XU-RS20-S4
Series	18MR
Style	Cylinder Optics 90°

Display/Operation

Adjuster	Potentiometer 270°
Display	Run - LED green Communication - Green LED, flashing LED yellow: Light received Limit range - LED yellow, flashing
Setting	Rated switching distance (Sn)

Electrical connection

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

Electrical data

Load capacitance max. at Ue	0.2 µF
Operating voltage Ub	10...30 VDC
Protection class	II
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	20 ms
Residual current Ir max.	30 µA
Ripple max. (% of Ue)	15 %
Switching frequency	800 Hz
Turn-off delay toff max.	0.63 ms
Turn-on delay ton max.	0.63 ms
Utilization category	DC -13

Environmental conditions

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

Functional safety

MTTF (40 °C)	1208 a
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IO-Link

IO-Link Profil IDs	N/A
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Photoelectric Sensors
BOS 18MR-PAI-RE20-S4
Order Code: BOS027U



Interface

Baud rate	38.4 kBaud
Interface	IO-Link 1.1
Process data OUT	1 byte
Process data cycle min.	4 ms
Profile	Smart Sensor
Switching output	PNP PNP NO/NC Pins 4-2

Material

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

Mechanical data

Dimension	Ø 18 x 92 mm
Mounting part	Nut M18x1
Tightening torque max.	15 Nm

Optical features

Ambient light max.	10000 Lux
Beam characteristic	Divergent
Light type	LED, red light
Principle of optical operation	Through-beam sensor (receiver)
Switching function, optical	Light/dark switching
Wave length	645 nm

Range/Distance

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

Remarks

For additional information, refer to user's guide.

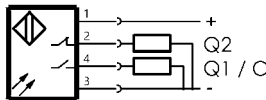
For more information about MTTF and B10d see MTTF / B10d Certificate

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

