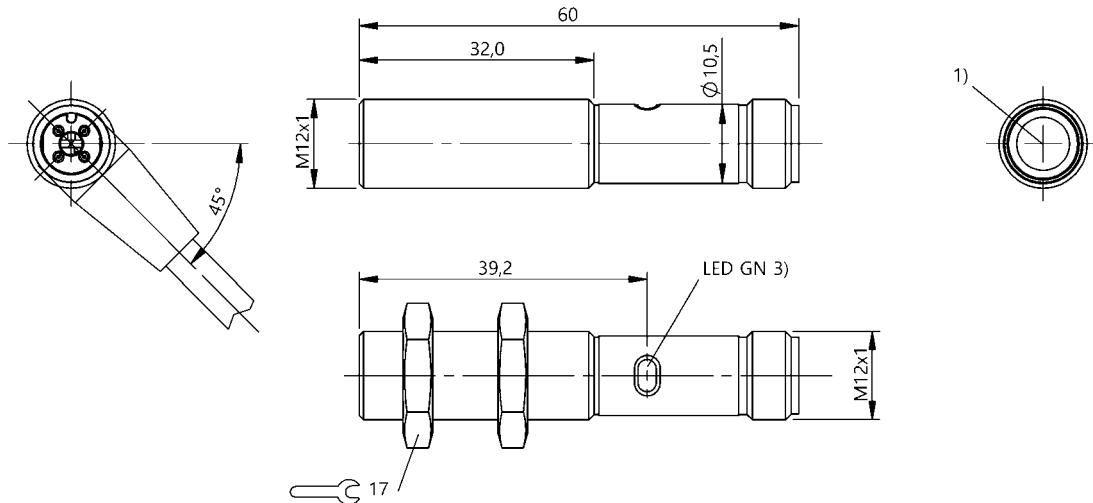


Photoelectric Sensors  
BOS 12M-X-RS10-S4  
Order Code: BOS01TW

**BALLUFF**



1) Optical axis emitter, 3) Operating voltage



#### Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference receiver	BOS 12M-..-RE10-..
Series	12M
Style	Cylinder
Trademark	Straight optics Global

#### 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 $U_e$	15 mA
Operating voltage $U_b$	10...30 VDC
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 <sub>n</sub> , 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)	1060 a
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#### Material

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

#### Mechanical data

Dimension	Ø 12 x 60 mm
Mounting part	Nut M12x1
Tightening torque max.	7 Nm
	15 Nm

#### Optical features

LED group per IEC 62471	Exempt Group
Light spot size	Ø 280 mm at 8 m
Light type	LED, red light
Principle of optical operation	Through-beam sensor (Emitter)
Wave length	644 nm

Photoelectric Sensors  
BOS 12M-X-RS10-S4  
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**BALLUFF**

Range/Distance

Range 0...8 m  
Rated operating distance Sn 8 m

## Remarks

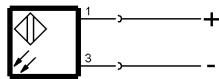
Order accessories separately.  
For additional information, refer to user's guide.  
For more information about MTTF and B10d see MTTF / B10d Certificate

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



1) Emitter

## Opto Symbols

