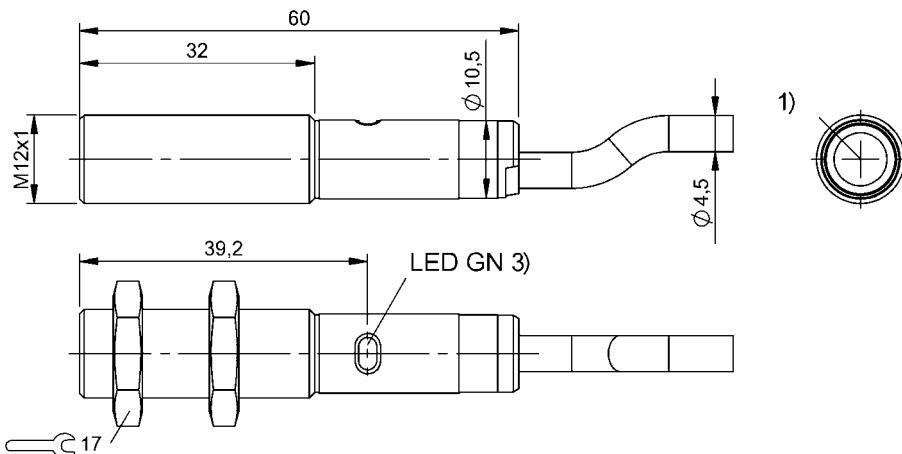


Photoelectric Sensors  
BOS 12M-X-RS10-02  
Order Code: BOS01WT

**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 Straight optics
Trademark	Global

#### Display/Operation

Adjuster	no
Display	LED green: Power

#### Electrical connection

Cable diameter D	4.60 mm
Cable length L	2 m
Conductor cross-section	0.34 mm <sup>2</sup>
Connection	Cable, 2.00 m, PVC
Number of conductors	2
Polarity reversal protected	yes
Protection against device mix-ups	yes

#### Electrical data

No-load current I <sub>0</sub> max. at U <sub>e</sub>	15 mA
Operating voltage U <sub>b</sub>	10...30 VDC
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> )	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 1 mm, 3x30 min
IP rating	IP67

#### Functional safety

MTTF (40 °C)	1060 a
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#### Material

Housing material	Brass, nickel-plated
Material jacket	PVC
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

Beam characteristic	Divergent
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	650 nm

## Range/Distance

Range	0...8 m
Rated operating distance $S_n$	8 m

## Remarks

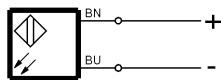
Order accessories separately.

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.

## Wiring Diagrams



## Opto Symbols

