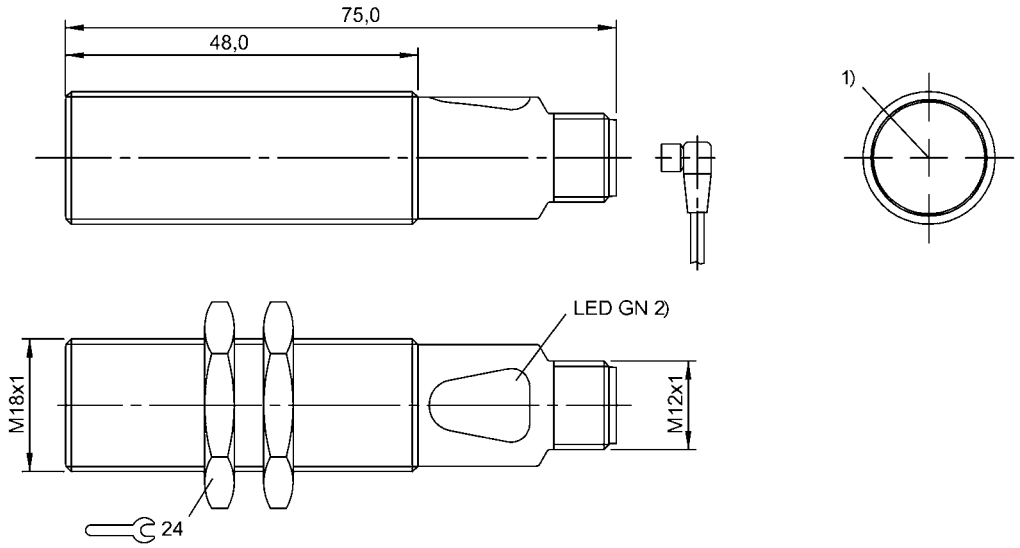
Photoelectric Sensors

BOS 18M-XT-LS20-S4
Order Code: BOS01NH



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-..-LE20-..
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

Input function	Test (Emitter off)
No-load current Io max. at Ue	9 mA
Operating voltage Ub	10...30 VDC
Protection class	II
Rated insulation voltage Ui	75 V DC
Rated operating voltage Ue DC	24 V
Ripple max. (% of Ue)	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)	778 a

Material

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

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Mechanical data

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

Optical features

Average power Po max.	390 µW
Beam characteristic	Collimated
Laser class per IEC 60825-1	1
Light spot size	Ø 40 mm at 60 m
Light type	Laser red light
Principle of optical operation	Through-beam sensor (Emitter)
Pulse duration t max.	30.0 µs
Pulse frequency	10.8 kHz
Pulse power Pp max.	2.5 mW
Smallest part typ.	Ø 0.2 mm at 1.5 m. R0 = 5 m
Wave length	655 nm

Range/Distance

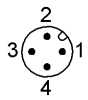
Range	0...60 m
Rated operating distance Sn	60 m Adjustable

Remarks

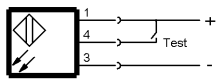
For additional information, refer to user's guide.
Order accessories separately.
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

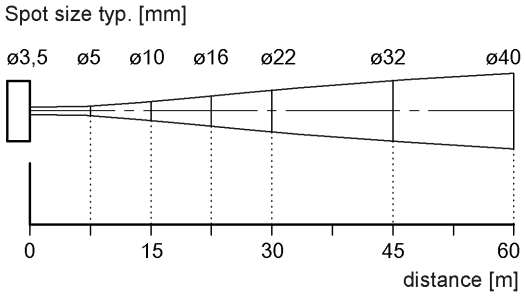
Connector Drawings



Wiring Diagrams

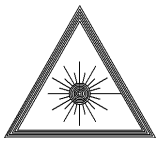


Technical Drawings



Opto Symbols

Warning Symbols



LASER CLASS 1 per IEC 60825-1