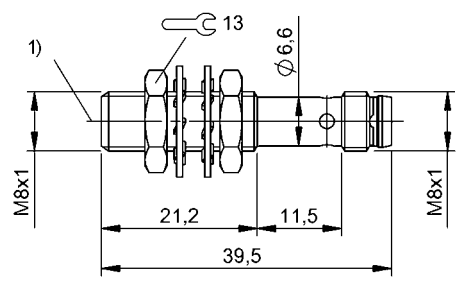


Photoelectric Sensors
BOS 08E-X-LS20-S49
Order Code: BOS01U8



1) Optical axis



Basic features

Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference receiver	BOS 08E-...-LE20-..
Series	08E
Style	Flat cylinder Straight optics

Display/Operation

Adjuster	no
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Electrical connection

Connection	Connector, M8x1-Male, 3-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes

Electrical data

No-load current I _{o max.} at U _e	10 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)	10 %

Environmental conditions

Ambient temperature	-5...55 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 100 gn, 2 ms, 3x8000 Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	10...2000 Hz, amplitude 1 mm, 30 gn, 3x5 h 10...55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	797.3 a
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Material

Housing material	Stainless steel
Material sensing surface	PMMA

Mechanical data

Dimension	Ø 8 x 40 mm
Mounting part	Nut M8x1

Optical features

Average power Po max.	390 µW
Beam characteristic	Collimated
Laser class per IEC 60825-1	1
Light spot size	Ø 3.0 mm Light exit
Light type	Laser red light
Principle of optical operation	Through-beam sensor (Emitter)
Pulse duration t max.	10.0 µs

Pulse frequency	10.8 kHz
Pulse power Pp max.	3.1 mW
Smallest part typ.	0.28 mm at 1 m. R0 = 3.0 m
Wave length	655 nm

Range/Distance

Range	0...3 m
Rated operating distance Sn	3 m

Remarks

Order accessories separately.

For additional information, refer to user's guide.

Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.

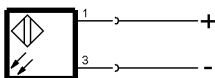
For more information about MTTF and B10d see MTTF / B10d Certificate

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

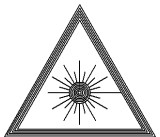
Opto Symbols



Photoelectric Sensors
BOS 08E-X-LS20-S49
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Warning Symbols



LASER CLASS 1 per IEC 60825-1