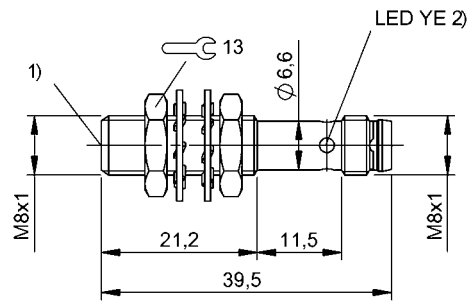


Photoelectric Sensors
BOS 08E-PS-LE20-S49
Order Code: BOS01U3



1) Optical axis, 2) Output function



Basic features

Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference emitter	BOS 08E-X-LS20-...
Series	08E
Style	Flat cylinder Straight optics

Display/Operation

Adjuster	no
Display	Limit range - LED yellow, flashing LED yellow: Light received

Electrical connection

Connection	Connector, M8x1-Male, 3-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	0.05 μ F
No-load current I _o max. at Ue	10 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	150 ms
Residual current I _r max.	50 μ A
Ripple max. (% of U _e)	10 %
Switching frequency	500 Hz
Utilization category	DC -13
Voltage drop U _d max. at I _e	0.7 V

Environmental conditions

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

Functional safety

MTTF (40 °C)	1989 a
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Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel
Material sensing surface PMMA

Mechanical data

Dimension Ø 8 x 40 mm
Mounting part Nut M8x1

Optical features

Ambient light max. 5000 Lux
Light type Laser red light
Principle of optical operation Through-beam sensor (receiver)
Smallest part typ. 0.28 mm at 1 m. R0 = 3.0 m
Switching function, optical dark-on

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.

UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

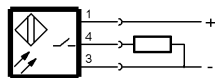
For more information about MTTF and B10d see MTTF / B10d Certificate

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



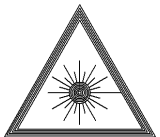
Opto Symbols



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Warning Symbols



LASER CLASS 1 per IEC 60825-1