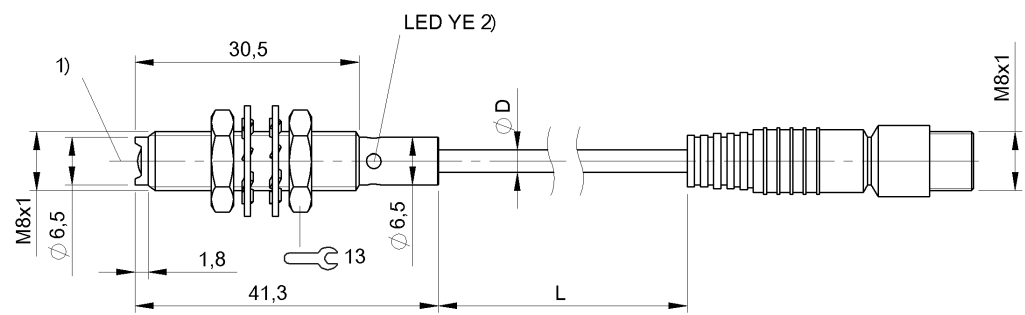


Photoelectric Sensors  
BOS 08E-NS-KD20-00,2-S49  
Order Code: BOS01RF



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
Series	08E
Style	Cylinder Straight optics

Display/Operation

Display	Limit range - LED yellow, flashing LED yellow: Light received
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Electrical connection

Cable diameter D	3.00 mm
Cable length L	0.2 m
Connection	Cable with connector, 0.20 m, PUR
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	0.5 µF
No-load current Io max. at Ue	15 mA
Operating voltage Ub	10...30 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	20 ms
Ripple max. (% of Ue)	10 %
Switching frequency	500 Hz
Turn-off delay toff max.	1 ms
Turn-on delay ton max.	1 ms
Utilization category	DC -13
Voltage drop Ud max. at Ie	0.7 V

Environmental conditions

Ambient temperature	-5...55 °C
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)	1559 a
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Interface

Switching output NPN normally open (NO)

Material

Housing material Stainless steel  
Material jacket PUR  
Material sensing surface PMMA

Mechanical data

Dimension Ø 8 x 40 mm  
Mounting part Nut M8x1

Optical features

Beam characteristic Divergent  
LED group per IEC 62471 Exempt Group  
Light spot size Ø 3.0 mm Light exit  
Light type LED, red light  
Principle of optical operation Diffuse sensor, energetic  
Switching function, optical Light-on  
Wave length 645 nm

Range/Distance

Range 1...60 mm  
Rated operating distance Sn 60 mm

Remarks

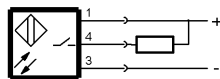
Order accessories separately.  
For additional information, refer to user's guide.  
Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.  
Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.  
The sensor is functional again after the overload has been eliminated.  
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

