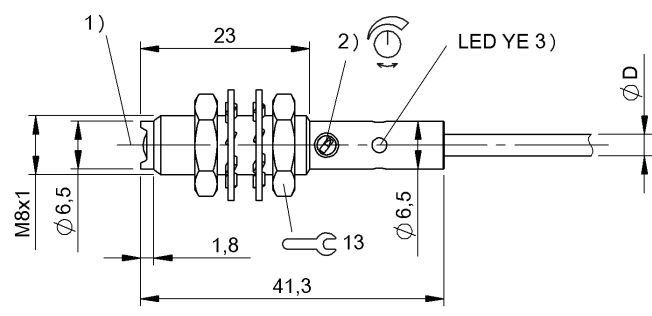


Photoelectric Sensors  
BOS 08E-PS-KH22-02  
Order Code: BOS01H8



1) Optical axis, 2) Sn, 3) Output function



### Basic features

Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	08E

### Display/Operation

Adjuster	Potentiometer 270°
Display	Output function- LED yellow Limit range - LED yellow, flashing
Setting	Rated switching distance (Sn)

### Electrical connection

Cable diameter D	3.00 mm
Cable length L	2 m
Conductor cross-section	0.14 mm²
Connection	Cable, 2.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at Ue	0.1 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.	30 ms
Ripple max. (% of Ue)	5 %
Switching frequency	450 Hz
Turn-off delay toff max.	1.11 ms
Turn-on delay ton max.	1.11 ms
Voltage drop Ud max. at Ie	0.7 V

### Environmental conditions

Ambient temperature	-5...55 °C
IP rating	IP64

### Functional safety

MTTF (40 °C)	75.9 a
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### Interface

Switching output	PNP normally open (NO)
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### 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 2.5 mm Light exit
Light type	LED, red light
Principle of optical operation	Diffuse sensor, triangulation
Special optical feature	Background suppression
Switching function, optical	Light-on
Wave length	640 nm

Range/Distance

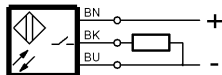
Distance deviation 18 % max. (% of Sr)	5 % on 90 % rem.
Hysteresis H max. (% of Sr)	10.0 %
Range	7...30 mm
Rated operating distance Sn	30 mm Adjustable
Repeat accuracy max. (% of Sr)	3.0 %
Temperature drift max. (% of Sr)	10 %

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.  
Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.  
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.

Wiring Diagrams



Opto Symbols

