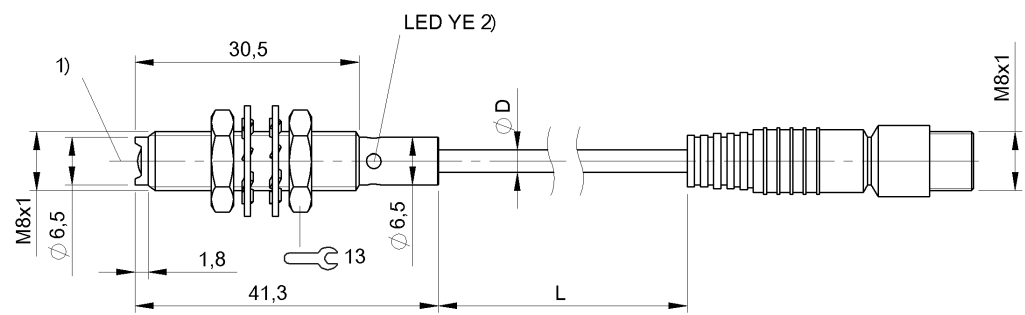


Photoelectric Sensors  
BOS 08E-PI-KH22-00,2-S49  
Order Code: BOS0246



1) Optical axis, 2) Output function



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Operating mode	SIO Mode IO-Link Mode
Principle of operation	Photoelectric sensor
Series	08E

Display/Operation

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	0.2 m
Connection	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.1 $\mu$ F
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	500 Hz
Turn-off delay toff max.	1 ms
Turn-on delay ton max.	1 ms
Voltage drop Ud max. at Ie	0.7 V

Environmental conditions

Ambient temperature	-5...55 $^{\circ}$ C
IP rating	IP67

Functional safety

MTTF (40 $^{\circ}$ C)	75.9 a
------------------------	--------

IO-Link

IO-Link Profil IDs	0x0001 SSP0
--------------------	-------------

Interface

Baud rate	38.4 kBaud
Function class, smart sensor	Switching signal channel
Interface	IO-Link 1.1
Interface setting option	BDC mode 1-pt./2-pt./window
Process data IN	Teaching active/inactive Limit range yes/no Switching state active/inactive
Process data cycle min.	2.3 ms
Profile	Smart Sensor
Switching output	PNP 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

Remarks

The sensor is functional again after the overload has been eliminated.  
Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.  
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.  
Order accessories separately.  
For additional information, refer to user's guide.  
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.

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	670 nm

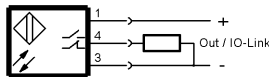
Range/Distance

Distance deviation 18 % max. (% of Sr)	10 % on 90 % rem.
Hysteresis H max. (% of Sr)	10.0 %
Range	30 mm, adjustable
Rated operating distance Sn	30 mm Adjustable
Repeat accuracy max. (% of Sr)	4.0 %
Temperature drift max. (% of Sr)	10 %

Connector Drawings



Wiring Diagrams



Photoelectric Sensors  
BOS 08E-PI-KH22-00,2-S49  
Order Code: BOS0246



Opto Symbols

