

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

#### 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 $I_0$ 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	-10...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	Half-sinus, 100 gn, 2 ms, 3x8000 min
IP rating	10...55 Hz, amplitude 1 mm, 3x30 min
	10...2000 Hz, amplitude 1 mm, 30 gn, 3x5 h
	IP67

#### Functional safety

MTTF (40 °C)	485.5 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

Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light type	LED, red light
Principle of optical operation	Through-beam sensor (Emitter)
Wave length	645 nm

Photoelectric Sensors  
BOS 08E-X-KS20-S49  
Order Code: BOS01Z5

**BALLUFF**

Range/Distance

Range 0...2.2 m  
Rated operating distance Sn 2.2 m

## Remarks

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 additional information, refer to user's guide.

Order accessories separately.

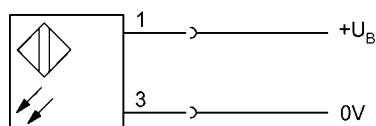
For more information about MTTF and B10d see MTTF / B10d Certificate

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

