

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



**Basic features**

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

**Display/Operation**

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

**Electrical connection**

<b>Connection</b>	Connector, M8x1-Male, 3-pin
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	yes

**Electrical data**

<b>Load capacitance max. at Ue</b>	0.1 µF
<b>No-load current I<sub>o</sub> max. at Ue</b>	15 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating current I<sub>e</sub></b>	100 mA
<b>Rated operating voltage U<sub>e</sub> DC</b>	24 V
<b>Ready delay t<sub>v</sub> max.</b>	30 ms
<b>Ripple max. (% of U<sub>e</sub>)</b>	5 %
<b>Switching frequency</b>	450 Hz
<b>Turn-off delay t<sub>off</sub> max.</b>	1.11 ms
<b>Turn-on delay t<sub>on</sub> max.</b>	1.11 ms
<b>Voltage drop U<sub>d</sub> max. at I<sub>e</sub></b>	0.7 V

**Environmental conditions**

<b>Ambient temperature</b>	-5...55 °C
<b>IP rating</b>	IP64

**Functional safety**

<b>MTTF (40 °C)</b>	75.9 a
---------------------	--------

**Interface**

<b>Switching output</b>	NPN normally open (NO)
-------------------------	------------------------

**Material**

<b>Housing material</b>	Stainless steel
<b>Material sensing surface</b>	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**

The sensor is functional again after the overload has been eliminated.  
 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.

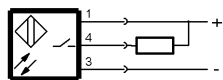
For more information about MTTF and B10d see MTTF / B10d Certificate

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**

