

1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function



**Basic features**

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Angle sensor
Series	D
Style	Angle Straight connection
Trademark	Global

**Electrical connection**

Connection	Connector, M8x1-Male, 3-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

**Display/Operation**

Adjuster	Potentiometer 270° (2x)
Display	Output function- LED yellow
Setting	Sensitivity Light-on/dark-on

**Electrical data**

Load capacitance max. at Ue	1 µF
No-load current I <sub>o</sub> max. at Ue	35 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Ready delay t <sub>v</sub> max.	200 ms
Residual current I <sub>r</sub> max.	50 µA
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	1500 Hz
Turn-off delay t <sub>off</sub> max.	0.33 ms
Turn-on delay t <sub>on</sub> max.	0.33 ms
Utilization category	DC -13
Voltage drop U <sub>d</sub> max. at I <sub>e</sub>	3 V

**Environmental conditions**

Ambient temperature	-10...60 °C
Contamination scale	3
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
IP rating	IP67

**Functional safety**

MTTF (40 °C)	307 a
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**Remarks**

Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral 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.  
 Factory default setting for switching output: Normally open.  
 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.

**Interface**

Switching output	PNP normally open/normally closed (NO/NC)
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**Material**

Housing material	Zinc, Die casting, Painted
Material sensing surface	Glass
Surface protection	Painted

**Mechanical data**

Dimension	10 x 75 x 84 mm
Mounting part	Screw M4

**Optical features**

Ambient light max.	5000 Lux
Beam characteristic	Divergent
Light spot size	Ø 1.7 mm Light exit
Light type	LED, red light
Principle of optical operation	Through-beam sensor
Smallest part typ.	0.40 mm
Switching function, optical	dark-on/light-on
Wave length	636 nm

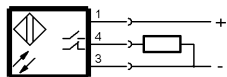
**Range/Distance**

Hysteresis H max.	0.15 mm
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**Connector Drawings**



## Wiring Diagrams (Schematic)



## Opto Symbols

