

1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis



## 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
Reference reflector	BOS R-22
Series	6K
Style	Square Connection 90°

## Display/Operation

Adjuster	button
Display	Output function- LED yellow supply voltage - LED green
Setting	Teach mode Stand./Dyn. Sensitivity (Sn) Light-on/dark-on

## Electrical connection

Connection	Connector, M8x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

## Electrical data

Input function	Key disable on/off Same function as button
No-load current $I_o$ max. at $U_e$	30 mA
Operating voltage $U_b$	10...30 VDC
Protection class	II
Rated operating current $I_e$	100 mA
Rated operating voltage $U_e$ DC	24 V
Switching frequency	1000 Hz
Turn-off delay $t_{off}$ max.	0.5 ms
Turn-on delay $t_{on}$ max.	0.5 ms
Voltage drop $U_d$ max. at $I_e$	3.5 V

## Environmental conditions

Ambient temperature	-20...60 °C
EN 60068-2-27, Shock	Half-sinus, 30 $g_n$ , 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
IP rating	IP67, IP69
Storage temperature	-20...80 °C

## Functional safety

MTTF (40 °C)	355 a
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## IO-Link

<b>IO-Link Profil IDs</b>	0x0004 SSP2.1 0x0005 SSP2.2 0x0006 SSP2.3 0x4000 Identification and Diagnosis
<b>IO-Link function classes</b>	0x800C Transducer Disable 0x8101 Locator

## Interface

<b>Baud rate</b>	COM2 (38.4 kBaud)
<b>Interface</b>	IO-Link-Device 1.1.3
<b>Process data IN</b>	1 byte
<b>Process data OUT</b>	1 byte
<b>Switching output</b>	PNP/NPN/IO-Link NO/NC

## Material

<b>Housing material</b>	ABS
<b>Material sensing surface</b>	PMMA

## Mechanical data

<b>Dimension</b>	12 x 34 x 21.6 mm
<b>Mounting part</b>	Screw M3

## Optical features

<b>Ambient light max.</b>	5000 Lux
<b>Beam characteristic</b>	Divergent
<b>Light spot size</b>	40 x 40 mm at 1 m
<b>Light type</b>	LED, red light
<b>Polarizing filter</b>	yes
<b>Principle of optical operation</b>	Retroreflective sensor, Transparent detection
<b>Special optical feature</b>	Transparency detection
<b>Switching function, optical</b>	dark-on/light-on
<b>Wave length</b>	632 nm

## Range/Distance

<b>Range</b>	0...2 m
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## Remarks

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

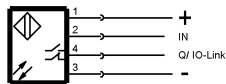
For more information about MTTF and B10d see MTTF / B10d Certificate

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 (Schematic)



## Opto Symbols

