



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
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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## Interface

Switching output	PNP/NPN/IO-Link NO/NC
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## Material

Housing material	ABS
Material sensing surface	PMMA

## Mechanical data

Dimension	12 x 34 x 21.6 mm
Mounting part	Screw M3

## Optical features

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

## Range/Distance

Range	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

