

1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter



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, 3-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
Ripple max. (% of U_e)	10 %
Switching frequency	1000 Hz
Turn-on delay t_{on} max.	0.125 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)	426 a
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Interface

Switching output	PNP/NPN normally open/normally closed (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
Average power Po max.	390 µW
Beam characteristic	Divergent
Laser class per IEC 60825-1	1
Light spot size	12 x 12 mm at 13 m
Light type	Laser red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Pulse duration t max.	0.7 µs
Pulse frequency	11.7 kHz
Pulse power Pp max.	8.5 mW
Switching function, optical	dark-on/light-on
Wave length	650 nm

Range/Distance

Range	0.1...13 m
Rated operating distance Sn	13 m, Adjustable

Remarks

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

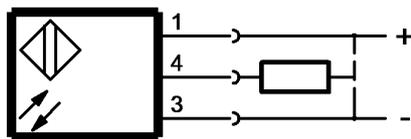
For more information about MTTF and B10d see MTTF / B10d Certificate

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



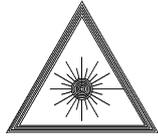
Wiring Diagrams (Schematic)



Opto Symbols



Warning Symbols



LASER CLASS 1 per IEC 60825-1