

1) Operating voltage, 2) Optical axis



## Basic features

Approval/Conformity	cULus CE WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference receiver	BOS 6K-..-LE10-..
Series	6K
Style	Square Connection 90°

## Display/Operation

Display	LED green: Power
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## Electrical connection

Connection	Connector, M8x1-Male, 3-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes

## Electrical data

No-load current $I_0$ max. at $U_e$	30 mA
Operating voltage $U_b$	10...30 VDC
Rated operating voltage $U_e$ DC	24 V
Ripple max. (% of $U_e$ )	12 %

## 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
IP rating per DIN 40050	IP69K

## Functional safety

MTTF (40 °C)	426 a
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## Material

Housing material	ABS
Material sensing surface	PMMA

## Mechanical data

Dimension	12 x 41 x 21.6 mm
Mounting part	Screw M3

## Optical features

Average power $P_o$ max.	390 $\mu$ W
Beam characteristic	Divergent
Laser class per IEC 60825-1	1
Light spot size	14 x 14 mm at 20 m
Light type	Laser red light
Principle of optical operation	Through-beam sensor (Emitter)
Pulse duration $t$ max.	2.0 $\mu$ s

Pulse frequency	13.3 kHz
Pulse power $P_p$ max.	4.2 mW
Wave length	650 nm

## Range/Distance

Range	0...18 m
Rated operating distance $S_n$	18 m Adjustable

## Remarks

When using as a UL product the ambient temperature  $T_a$  max. must not exceed 50°C.

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.

For additional information, refer to user's guide.

Order accessories separately.

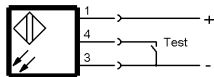
For more information about MTTF and B10d see MTTF / B10d Certificate

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



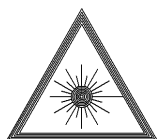
## Wiring Diagrams



## Opto Symbols



## Warning Symbols



LASER CLASS 1 per IEC 60825-1