



1) Output function 2) Power 3) Sn, Light-on/Dark-on 4) Optical axis receiver 5) Optical axis emitter

- Photoelectric sensor
- Series 6K
- LED, red light



**General attributes**

Adjuster	Key (1x)
Approvals / Conformity	cULus CE
Basic standard	IEC 60947-5-2
Enclosure Type DIN 40050	IP69K
Enclosure Type per IEC 60529	IP67
Indicator	Power - LED GN Output function - LED YE
Input function	Same function as key Key disable on/off
Polarity reversal protected	yes
Series	Series 6K
Setting	Switching distance (Sn) Light-on/dark-on Teach-in mode stand./dyn./obj.
Short circuit protected	yes

**Electrical attributes**

Connection type	Connector
Eff. operating current Ie	100 mA
Eff. operating voltage Ue DC	24.0 V
Electrical version	DC, direct current
No-load current max. Io at Ue	30 mA
Operating voltage UB max. DC [V]	30.0 V
Operating voltage UB min. DC [V]	10.0 V
Ripple max. (% of Ue)	12 %
Switching freq. f max. (at Ue)	1000 Hz
Switching function	NO/NC
Switching output	PNP (1x)
Turn on time ton max.	0.50 ms
Voltage drop Ud max. (at Ie)	2.4 V

**Mechanical attributes**

Ambient temperature Ta max.	60 °C
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Ambient temperature Ta min.	-20 °C
Connector type	M8x1-S75
Detection range Sd	3...400 mm
Dist. dev. 18 % max. (% of Sr)	5 %
Eff. operating distance Sr	400 mm
Housing material	ABS
Length 1	12.0 mm
Length 2	21.6 mm
Length 3	41.5 mm
Minimum operating distance	3 mm
Mounting type	Screw M3
Range Sn	Sn = 400 mm, adjustable
Sensing face material	PMMA
Style	Block, 90° connection

**Optical attributes**

Light spot size, typical	8 mm x 8 mm at focal point
Light type	LED, red light
Optical special feature	Background suppression
Principle of optical operation	Light scanner, triangulation
Switching function, optical	NO/NC: light-on/dark-on
Wavelength	640 nm

**Additional text**

For use as UL listed product the Ambient temperature Ta max. may not exceed the value of 50 °C.  
The sensor is functional again after the overload has been eliminated.  
Only for NFPA 79 applications (machines with a supply voltage of maximum 600 volts).  
Device shall be connected only by using any R/C (CYJV2) cord, having suitable ratings.  
For additional information, refer to user's guide.  
Order accessories separately.  
Do not press key using a pointed tool.  
Reference object (target): Gray card, 200 x 200,  
90 % remission, axial approach.

Photoelectric sensor

**BOS 6K-PU-RH11-S75**  
**BOS01L3**

**BALLUFF**  
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