



1) Light reception, 2) Stability, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter



### Basic features

<b>Approval/Conformity</b>	cULus CE
<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Photoelectric sensor
<b>Series</b>	6K
<b>Style</b>	Square Connection 90°

### Display/Operation

<b>Adjuster</b>	button
<b>Display</b>	LED yellow: Light received Stability - LED green
<b>Setting</b>	Light-on/dark-on Factory setting (Reset) Rated switching distance (Sn)

### Electrical connection

<b>Connection</b>	Connector, M8x1-Male, 4-pin
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	yes

### Electrical data

<b>Input function</b>	Key disable on/off Same function as button
<b>No-load current I<sub>o</sub> max. at U<sub>e</sub></b>	25 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Protection class</b>	II
<b>Rated operating current I<sub>e</sub></b>	100 mA
<b>Rated operating voltage U<sub>e</sub> DC</b>	24 V
<b>Switching frequency</b>	1000 Hz
<b>Turn-off delay t<sub>off</sub> max.</b>	0.5 ms
<b>Turn-on delay t<sub>on</sub> max.</b>	0.5 ms
<b>Voltage drop U<sub>d</sub> max. at I<sub>e</sub></b>	2.4 V

### Environmental conditions

<b>Ambient temperature</b>	-20...60 °C
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 gn, 11 ms, 3x6
<b>EN 60068-2-6, Vibration</b>	10...55 Hz, amplitude 0.5 mm, 3x30 min
<b>Protection degree</b>	IP67

### Material

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

### Mechanical data

<b>Dimension</b>	12 x 42 x 21 mm
<b>Mounting</b>	Screw M3

Photoelectric Sensors  
**BOS 6K-PU-10C-S75-C**  
**Order Code: BOS00A9**



**Optical features**

<b>Ambient light max.</b>	5000 Lux
<b>Beam characteristic</b>	Divergent
<b>Light spot size</b>	12 x 12 mm at 160 mm
<b>Light type</b>	LED, red light
<b>Principle of optical operation</b>	Diffuse sensor, energetic
<b>Switching function, optical</b>	Light/dark switching
<b>Wave length</b>	660 nm

**Output/Interface**

<b>Switching output</b>	PNP normally open/normally closed (NO/NC)
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**Range/Distance**

<b>Hysteresis H max. (% of Sr)</b>	10.0 %
<b>Range</b>	20...300 mm
<b>Rated operating distance Sn</b>	300 mm Adjustable

**Remarks**

Do not press key using a pointed tool.  
 Order accessories separately.  
 The sensor is functional again after the overload has been eliminated.  
 Reference object (target): gray card, 100 x 100, 90 % remission, axial approach.  
 For additional information, refer to user's guide.  
 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.

**Connector Drawings**

**Wiring Diagrams**

**Opto Symbols**