

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



### Basic features

<b>Approval/Conformity</b>	CE cULus EAC WEEE
<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 <math>I_o</math> max. at <math>U_e</math></b>	25 mA
<b>Operating voltage <math>U_b</math></b>	10...30 VDC
<b>Protection class</b>	II
<b>Rated operating current <math>I_e</math></b>	100 mA
<b>Rated operating voltage <math>U_e</math> DC</b>	24 V
<b>Switching frequency</b>	1000 Hz
<b>Turn-off delay <math>t_{off}</math> max.</b>	0.5 ms
<b>Turn-on delay <math>t_{on}</math> max.</b>	0.5 ms
<b>Voltage drop <math>U_d</math> max. at <math>I_e</math></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

**Optical features**

Light spot size	5 x 5 mm at 60 mm
Light type	LED, red light
Principle of optical operation	Diffuse sensor, triangulation
Special optical feature	Background suppression
Switching function, optical	Light/dark switching
Wave length	640 nm

**Output/Interface**

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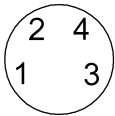
**Range/Distance**

Distance deviation 18 % max. (% of Sr)	7 % to 90 % rem.
Range	25...100 mm
Rated operating distance Sn	100 mm Adjustable

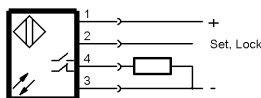
**Remarks**

For additional information, refer to user's guide.  
 Order accessories separately.  
 The sensor is functional again after the overload has been eliminated.  
 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.  
 Do not press key using a pointed tool.  
 Reference object (target): gray card, 200 x 200, 18 % remission, axial approach.

**Connector Drawings**



**Wiring Diagrams**



**Opto Symbols**

