



1) Optical axis receiver 2) Optical axis emitter 3) 270° rotatable 4) Oper. voltage/short circuit 5) Output function/error 6) Sn

- Photoelectric sensor
- Series 50K
- LED, red light
- up to 2 m



**General attributes**

Adjuster  
Approvals / Conformity

Basic standard  
Enclosure Type per IEC 60529  
Indicator

Polarity reversal protected  
Protection Class  
Series  
Setting  
Short circuit protected

**Electrical attributes**

Auxiliary output  
Connection type  
Eff. operating current I<sub>e</sub>  
Eff. operating voltage U<sub>e</sub> DC  
Electrical version  
Load capacitance max. (at U<sub>e</sub>)  
No-load current max. I<sub>o</sub> at U<sub>e</sub>  
Operating voltage U<sub>B</sub> max. DC [V]  
Operating voltage U<sub>B</sub> min. DC [V]  
Rated insulation voltage U<sub>i</sub>  
Ripple max. (% of U<sub>e</sub>)  
Switch func. auxiliary output  
Switching freq. f max. (at U<sub>e</sub>)  
Switching function  
Switching output  
Turn on time t<sub>on</sub> max.  
Voltage drop U<sub>d</sub> max. (at I<sub>e</sub>)

Potentiometer 10-turn (1x)  
CE  
cULus  
IEC 60947-5-2  
IP67  
Output function - LED YE  
Power - LED GN  
Error - LED YE, flash.  
Short circuit - LED GN, flash.  
yes  
II  
Series 50K  
Switching distance (Sn)  
yes

Error output PNP  
Connector  
100 mA  
24.0 V  
DC, direct current  
0.10 µF  
50 mA  
30.0 V  
10.0 V  
250 V AC  
10 %  
NC  
500 Hz  
NO  
PNP (1x)  
1.00 ms  
2.5 V

**Mechanical attributes**

Ambient temperature T<sub>a</sub> max.  
Ambient temperature T<sub>a</sub> min.  
Connector type  
Detection range S<sub>d</sub>  
Dist. dev. 18 % max. (% of S<sub>r</sub>)  
Eff. operating distance S<sub>r</sub>  
Housing material  
Length 1  
Length 2  
Length 3  
Minimum operating distance  
Mounting type  
Range S<sub>n</sub>  
Sensing face material  
Style

60 °C  
-10 °C  
M12x1-S04  
200...2000 mm  
8 %  
2000 mm  
PC-ABS  
28.5 mm  
62.0 mm  
80.5 mm  
200 mm  
Screw M5  
S<sub>n</sub> = 2 m, adjustable  
Glass  
Block, rotatable connection

**Optical attributes**

LED group acc. IEC 62471  
Light spot size, typical  
Light type  
Optical special feature  
Principle of optical operation  
Switching function, optical  
Wavelength

Exempt group  
75 mm x 75 mm at 1.5 m  
LED, red light  
Background suppression  
Light scanner, triangulation  
NO: light-on  
630 nm

**Additional text**

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.  
The sensor is functional again after the overload has been eliminated.  
Reference object (target): Gray card, 200 x 200,  
90 % remission, axial approach.  
Order accessories separately.

Photoelectric sensor

**BOS 50K-PSV-RH12-S4**  
**BOS0156**

**BALLUFF**

sensors worldwide

