

1) Optical axis receiver, 2) Optical axis emitter, 3) Stability, 4) Output function, 5) Removable cover



### Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	64K
Style	Square Connection 45°

### Display/Operation

Adjuster	Potentiometer 240° (2x) Slide switch (4x)
Display	Output function- LED yellow Stability - LED green
Setting	Time function Light-on/dark-on Rated switching distance (Sn)

### Electrical connection

Cable diameter D	8...10 mm
Connection	Screw terminals
Polarity reversal protected	yes
Protection against device mix-ups	yes

### Electrical data

No-load current I <sub>o max.</sub> at U <sub>e</sub>	25 mA
Operating voltage U <sub>b</sub>	24...60 VDC/24...240 VAC
Protection class	II
Rated insulation voltage U <sub>i</sub>	250 V AC
Rated operating current I <sub>e</sub>	3000 mA
Rated operating voltage U <sub>e AC</sub>	230 V
Rated operating voltage U <sub>e DC</sub>	24 V
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	20 Hz
Turn-off delay t <sub>off max.</sub>	25 ms
Turn-on delay t <sub>on max.</sub>	25 ms
Utilization category	AC-140

Photoelectric Sensors  
**BOS 64K-AA-PR10-TG**  
 Order Code: BOS01K3



Environmental conditions

<b>Ambient temperature</b>	-25...55 °C
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6
<b>EN 60068-2-6, Vibration</b>	10...55 Hz, amplitude 0.5 mm, 3x30 min
<b>IP rating</b>	IP67

Functional safety

<b>MTTF (40 °C)</b>	287 a
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Interface

<b>Duration of time function</b>	T = 0.6...16 s
<b>Switching output</b>	Relay NO/NC change-over contact
<b>Time function</b>	switch-off delay On/off delay Turn-on delay Single pulse

Material

<b>Housing material</b>	PBT, GF30
<b>Material sensing surface</b>	PC

Mechanical data

<b>Dimension</b>	25 x 69.7 x 100.4 mm
<b>Mounting part</b>	Screw M4
<b>Tightening torque max.</b>	1.2 Nm

Optical features

<b>Ambient light max.</b>	5000 Lux
<b>Beam characteristic</b>	Divergent
<b>Blind zone</b>	100 mm
<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED, red light
<b>Polarizing filter</b>	yes
<b>Principle of optical operation</b>	Retroreflective sensor
<b>Switching function, optical</b>	Light-on dark-on
<b>Wave length</b>	660 nm

Range/Distance

<b>Range</b>	0...10 m
<b>Rated operating distance Sn</b>	10 m, Adjustable

Remarks

For additional information, refer to user's guide.

Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.

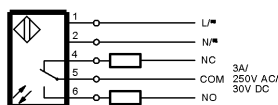
Polarizing filters prevent spurious switching due to reflecting and shiny parts.

Order accessories separately.

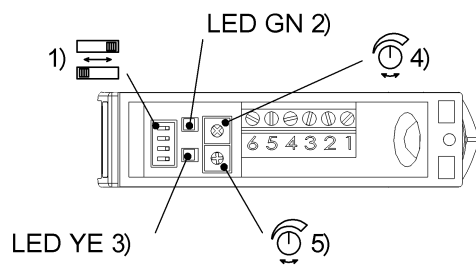
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

Wiring Diagrams (Schematic)



## Help Views



- 1) Light-on/dark-on, time funct
- 2) Stability
- 3) Output function
- 4) Sensitivity
- 5) Delay time

## Opto Symbols

