

1) Optical axis receiver, 2) Light reception, 3) Operating voltage, 4) rotatable 270°



Basic features

Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference emitter	BOS 50K-X-RS10 -..
Series	50K
Style	Square Connection can be rotated

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Display/Operation

Display	LED green: Power LED yellow: Light received
----------------	--

Electrical data

Load capacitance max. at Ue	7 µF
No-load current I _o max. at Ue	35 mA
Operating voltage U _b	10...30 VDC
Protection class	II
Rated insulation voltage U _i	250 V AC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	200 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	10 %
Switching frequency	400 Hz
Turn-off delay t _{off} max.	1.25 ms
Turn-on delay t _{on} max.	1.25 ms
Utilization category	DC -13
Voltage drop U _d max. at I _e	2.5 V

Environmental conditions

Ambient temperature	-5...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
Protection degree	IP67

Functional safety

MTTF (40 °C)	617 a
--------------	-------

Remarks

The sensor is functional again after the overload has been eliminated.

Order accessories separately.

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.

Material

Housing material	PC ABS
Material sensing surface	Glass

Mechanical data

Dimension	28.5 x 80.5 x 62 mm
Mounting	Screw M5

Optical features

Ambient light max.	10000 Lux
Light type	LED, red light
Principle of optical operation	Through-beam sensor (receiver)
Switching function, optical	Light-on dark-on

Output/Interface

Switching output	PNP normally open (NO) PNP NC Pins 4-2
------------------	---

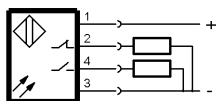
Range/Distance

Range	0...60 m
Rated operating distance S _n	60 m Adjustable
Temperature drift max. (% of S _r)	10 %

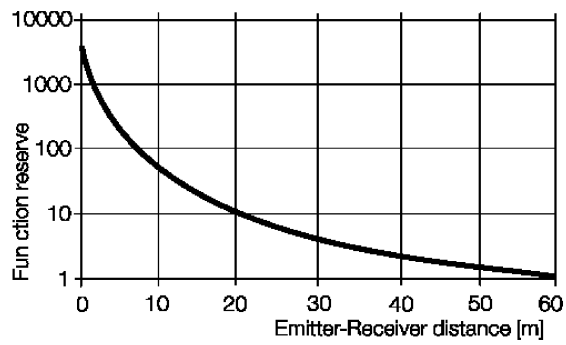
Connector Drawings



Wiring Diagrams



Technical Drawings



Opto Symbols

