

1) Optical axis emitter



Basic features

Approval/Conformity	Ecolab cULus CE WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference receiver	BOS R01E-...-KE20-..
Series	R01E
Style	Square Connection 90°

Environmental conditions

Ambient temperature	-5...55 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 100 gn, 2 ms, 3x8000 Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 1 mm, 3x30 min 10...2000 Hz, amplitude 1 mm, 30 gn, 3x5 h
IP rating	IP67
IP rating per DIN 40050	IP69K

Electrical connection

Cable diameter D	3.00 mm
Cable length L	2 m
Conductor cross-section	0.14 mm ²
Connection	Cable, 2.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes

Functional safety

MTTF (40 °C)	548.1 a
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Material

Housing material	1.4404 stainless steel
Material jacket	PUR
Material sensing surface	PA

Electrical data

No-load current I_o max. at U_e	10 mA
Operating voltage U_b	10...30 VDC
Rated insulation voltage U_i	75 V DC
Rated operating voltage U_e DC	24 V

Mechanical data

Dimension	20 x 32 x 9 mm
Mounting part	Screw M3

Photoelectric Sensors
BOS R01E-X-KS20-02
Order Code: BOS021T

BALLUFF

Optical features

Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light spot size	Ø 3.0 mm Light exit
Light type	LED, red light
Principle of optical operation	Through-beam sensor

Smallest part typ.	0.4 mm at 1 m. R0 = 2 m
Wave length	650 nm

Range/Distance

Range	0...2.2 m
Rated operating distance Sn	2.2 m

Remarks

Order accessories separately.

For additional information, refer to user's guide.

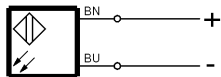
Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.

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

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



Opto Symbols

