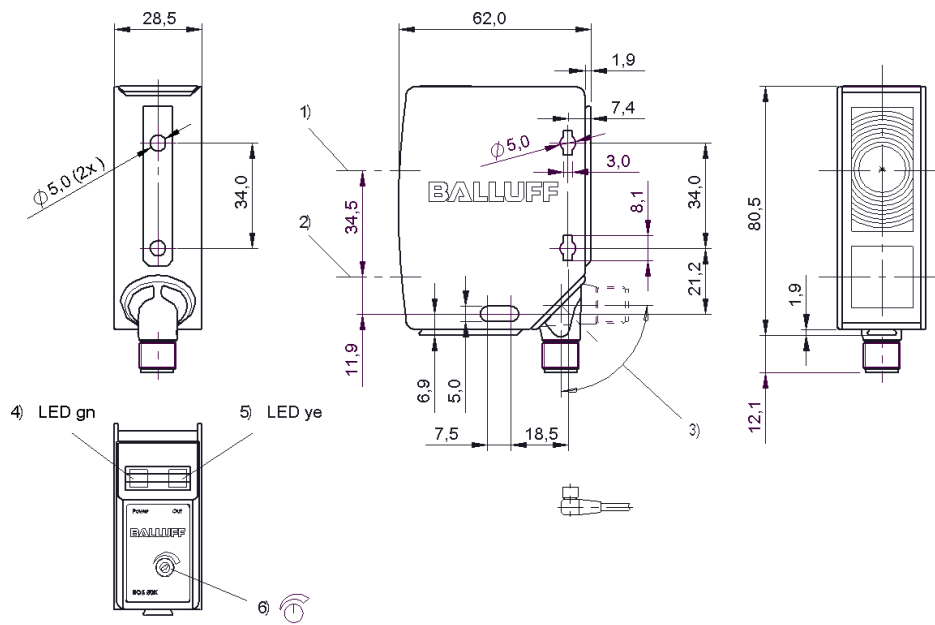




1) Optical axis receiver, 2) Optical axis emitter, 3) rotatable 270°, 4) Power/short-circuit, 5) Output function/Error, 6) Sn



IND. CONT. EQ.
 81U2
 Class 2 Type 1

Display/Operation

Adjuster	10-turn potentiometer
Display	Output function- LED yellow LED green: Power Error - LED yellow, flashing Short circuit - LED green, flashing
Setting	Rated switching distance (Sn)

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

Electrical data

Load capacitance max. at Ue	0.1 µF
No-load current Io max. at Ue	50 mA
Operating voltage Ub	10...30 VDC
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	300 ms
Residual current Ir max.	10 µA
Ripple max. (% of Ue)	10 %
Switching frequency	500 Hz
Turn-off delay toff max.	1 ms
Turn-on delay ton max.	1 ms
Utilization category	DC -13
Voltage drop Ud max. at Ie	2.5 V

Environmental conditions

Ambient temperature	-10...60 °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
IP rating	IP67

General data

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

Material

Housing material	PC ABS
Material sensing surface	Glass

Mechanical data

Dimension	28.5 x 80.5 x 62 mm
Distance deviation 6 % max. (% of Sr)	25.0 %
Mounting	Screw M5

Optical data

Ambient light max.	10000 Lux
Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light spot size	60 x 60 mm at Sr
Light type	LED, red light
Principle of optical operation	Diffuse sensor, triangulation
Special optical feature	Background suppression
Switching function, optical	Light-on
Wave length	630 nm

Output/Interface

Switching output	PNP normally open (NO)
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Range/Distance

Distance deviation 18 % max. (% of Sr)	8 %
Hysteresis H max. (% of Sr)	5.0 %
Range	200...2000 mm
Rated operating distance Sn	2 m Adjustable
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %

Remarks

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

Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.

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.

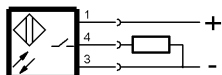
For additional information, refer to user's guide.

Order accessories separately.

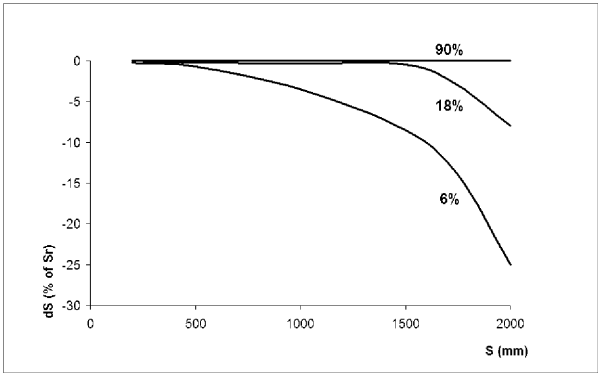
Connector Drawings



Wiring Diagrams



Technical Drawings



Opto Symbols

