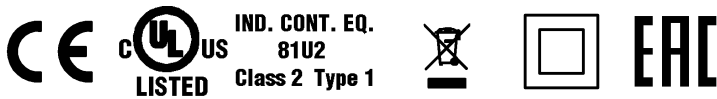


1) Optical axis receiver, 2) Optical axis emitter, 3) rotatable 270°, 4) Power/short-circuit, 5) Output function/Error, 6) Sn



Basic features

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

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 I _o max. at Ue	50 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.	300 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	10 %
Switching frequency	500 Hz
Turn-off delay t _{off} max.	1 ms
Turn-on delay t _{on} max.	1 ms
Utilization category	DC -13
Voltage drop U _d max. at I _e	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
Protection degree	IP67

Functional safety

MTTF (40 °C) 219 a

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 features

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

Supplementary output Error output PNP
 Switch function, supplementary output Normally closed (NC)
 Switching output PNP normally open (NO)

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 %

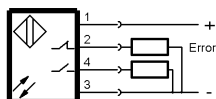
Remarks

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.
 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.

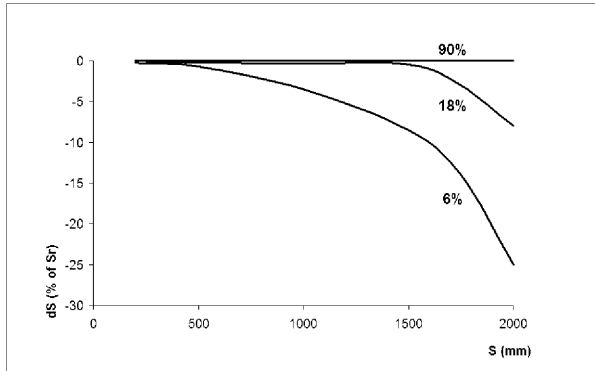
Connector Drawings



Wiring Diagrams



Technical Drawings



Opto Symbols

