

- 1) Optical axis receiver
- 2) Optical axis emitter
- 3) Operating voltage
- 4) Light reception/limit area
- 5) Sn



Display/Operation

Adjuster	Potentiometer 270°
Setting	Rated switching distance (Sn)

Electrical connection

Cable diameter D	4.70 mm
Cable length	2 m
Conductor cross-section	0.34 mm ²
Connection type	Cable, 2.00 m, PVC
Number of conductors	3
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Contamination scale	3
Hysteresis H max. (% of Sr)	10.0 %
Load capacitance max. at Ue	0.2 µF
Polarity reversal protected	yes
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Residual ripple max. (% of Ue)	15 %
Switching frequency	1000 Hz
Turn-off delay toff max.	0.5 ms
Turn-on delay ton max.	0.5 ms
Utilization category	DC-13
Voltage drop Ud max. at Ie	1.5 V

Environmental conditions

Ambient temperature	-5...55 °C
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IP rating per IEC 60529

IP67

General data

Approval/Conformity	CE cULus
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric Sensor
Series	12M
Style	Cylinder Straight optics

Material

Housing material	Brass
Material jacket	PVC
Material sensing surface	PMMA
Surface protection	nickel plated

Mechanical data

Dimension	Ø 12 x 60 mm
Fastening detail	Nut M12x1
Tightening torque max.	7 Nm 15 Nm

Optical data

Ambient light max.	10000 Lux
Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light spot size	45 x 45 mm at 400 mm
Light type	Infrared
Principle of optical operation	Diffuse sensor, energetic
Switching function optical	Light-on

Wave length 850 nm

Rated operating distance S_n 400 mm, Adjustable

Temperature drift max. (% of S_r) 10 %

Output/Interface

Switching output PNP Normally open (NO)

Remarks

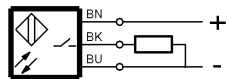
Order accessories separately.
 For additional information, refer to users guide.
 Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.
 The sensor is functional again after the overload has been eliminated.

Range/Distance

Measuring range 1...400 mm

Range 1...400 mm

Wiring Diagram



Symbols for Optoelectronic Sensors

