

1) Optical axis 2) Sn 3) Output function 4) stability



## Display/Operation

Adjuster	Potentiometer 270°
Setting	Sensitivity (Sn)

## Electrical connection

Connection	M12x1-Male, 4-pole, A-coded
Protection against device mix-ups	yes
Short-circuit protection	yes

## Electrical data

Contamination scale	3
Load capacitance max. at Ue	1 µF
No-load current I <sub>o</sub> max. at Ue	35 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Polarity reversal protected	yes
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub> DC	100 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Residual current I <sub>r</sub> max.	50 µA
Ripple max. (% of U <sub>e</sub> )	8 %
Switching frequency	1500 Hz
Turn-off delay t <sub>off</sub> max.	0.33 ms
Turn-on delay t <sub>on</sub> max.	0.33 ms
Utilization category	DC-13
Voltage drop U <sub>d</sub> max. at I <sub>e</sub>	2 V

## Environmental conditions

Ambient temperature	-10...50 °C
Protection type IEC 60529	IP67

## General data

Approval/Conformity	CE cULus
Basic standard	IEC 60947-5-2
Series	18K
Style	Cylinder Straight optics

## Material

Housing material	ABS
Material sensing surface	PMMA

## Mechanical data

Blind zone	100 mm
Dimension	Ø 18 x 86.8 mm
Fastening detail	Nut M18x1

## Optical data

Ambient light max.	5000 Lux
Average power P <sub>o</sub> max.	390 µW
Laser class per IEC 60825-1	1
Light type	Laser Red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Wave length	650 nm

## Output/Interface

Switching output	PNP Normally open (NO) (Pin 4)
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## Range/Distance

Measuring range	0...12 m
Range	0...12 m
Rated operating distance Sn	12 m, Adjustable
Temperature drift max. (% of Sr)	10 %

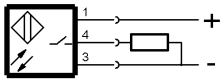
## Remarks

The sensor is functional again after the overload has been eliminated.  
 Polarizing filters prevent spurious switching due to reflecting and shiny parts.  
 For additional information, refer to users guide.  
 Order accessories separately.  
 Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.

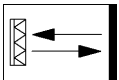
## Connector view



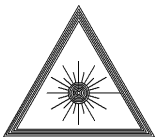
## Wiring Diagram



## Symbols for Optoelectronic Sensors



## Warning Symbols



LASER CLASS 1 per IEC 60825-1