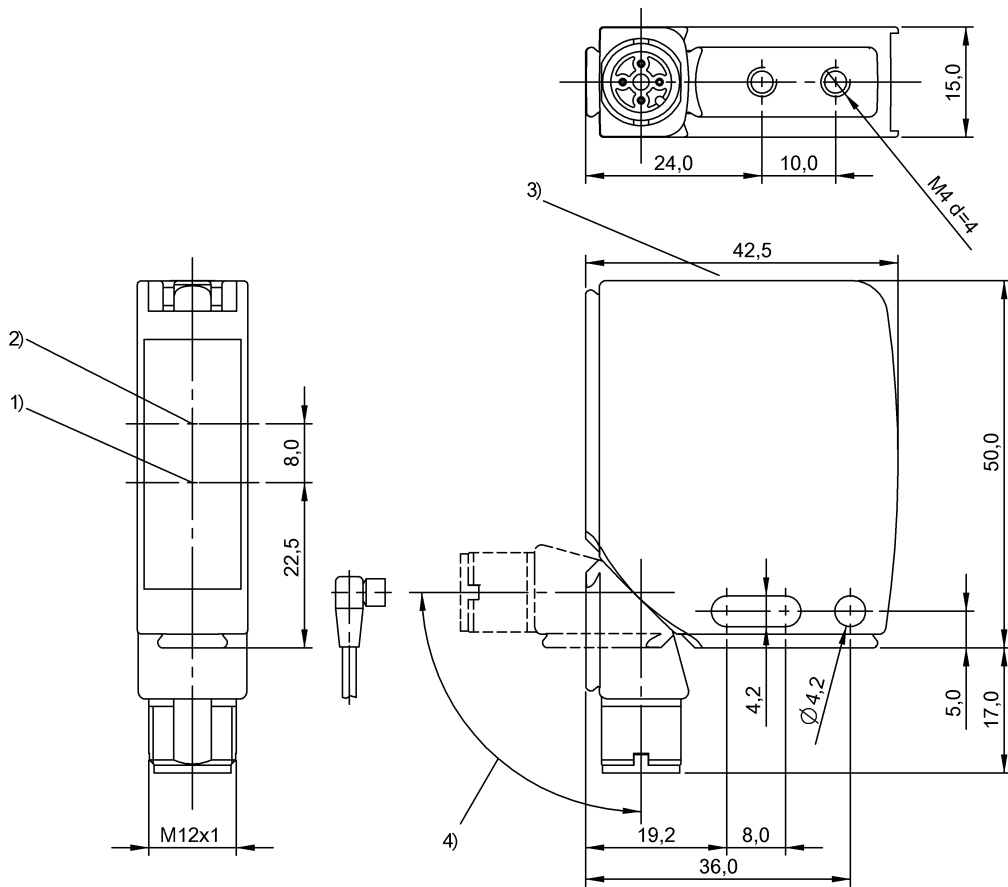


## BOS 21M-PA-PR10-S4 BOS00TR



1) Optical axis emitter 2) Optical axis receiver 3) Display and control panel 4) rotatable 270°



### Display/Operation

Adjuster	Potentiometer 270° (1x)
Setting	Sensitivity (Sn)

### Electrical connection

Connection	M12x1-Connector, 4-pole, A-coded
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at Ue	1 µF
MTTF (40 °C)	594 a
No-load current I <sub>0</sub> max. at Ue	35 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Pollution degree	3
Protected against miswiring	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

Ready delay t <sub>v</sub> max.	200 ms
Residual current I <sub>r</sub> max.	10 µA
Switching frequency	1000 Hz
Turn-off delay t <sub>off</sub> max.	0.5 ms
Turn-on delay t <sub>on</sub> max.	0.5 ms
Utilization category	DC -13
Voltage drop U <sub>d</sub> max. at I <sub>e</sub>	2 V

### Environmental conditions

Ambient temperature	-25...55 °C
Protection class	II
Protection type IEC 60529	IP67
Reference reflector	BOS R-1

### Functional safety

Diagnostic coverage	0 %
Functional safety	no
Mission Time	10 a

### General data

Approval/Conformity	CE cULus
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## BOS 21M-PA-PR10-S4 BOS00TR

Basic standard	IEC 60947-5-2
Series	21M
Style	Square Connection can be rotated

### Material

Housing material	Zinc, Die casting Aluminum
Material sensing surface	PMMA
Surface protection	powder coated

### Mechanical data

Blind zone	100 mm
Dimension	15 x 50 x 42.5 mm
Fastening detail	Screw M4

### Optical data

Ambient light max.	10000 Lux
Light type	LED Red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Wave length	650 nm

### Output/Interface

Switching output	PNP Normally closed (NC) PNP Normally open (NO)
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### Range/Distance

Measuring range	0...8 m
Range	0...8 m
Rated operating distance $S_n$	8 m, Adjustable
Ripple max. (% of $U_e$ )	8 %

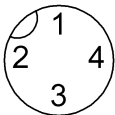
### Remarks

Order accessories separately.  
For additional information, refer to user's guide.  
Polarizing filters prevent spurious switching due to reflecting and shiny parts.  
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.  
Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.

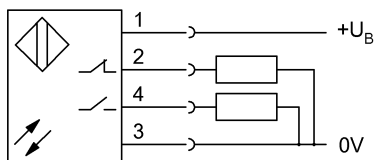
For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

### Connector view

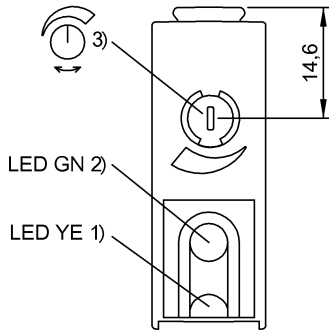


### Wiring Diagram



BOS 21M-PA-PR10-S4  
BOS00TR

## Additional View



1) Output function 2) Stability 3) Sensitivity

## Symbols for Optoelectronic Sensors

