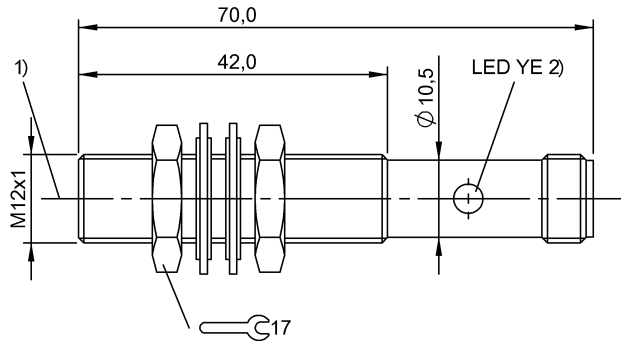


BOS 12M-PS-1YB-S4-C BOS0043



1) Optical axis 2) Output function



Electrical connection

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

Electrical data

Hysteresis H max. (% of Sr)	20.0 %
Load capacitance max. at Ue	0.5 μ F
No-load current I ₀ max. at Ue	20 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm
Pollution degree	3
Protected against miswiring	yes
Rated insulation voltage U _i	75 V DC
Rated operating current I _e DC	200 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	100 ms
Repeat accuracy max. (% of Sr)	5.0 %
Residual current I _r max.	50 μ A
Switching frequency	200 Hz
Turn-off delay t _{off} max.	2.5 ms
Turn-on delay t _{on} max.	2.5 ms
Utilization category	DC -13
Voltage drop U _d max. at I _e	2.5 V

Environmental conditions

Ambient temperature	-5...55 °C
Protection type IEC 60529	IP67

General data

Approval/Conformity	CE cULus
Basic standard	IEC 60947-5-2
Series	12M
Style	Cylinder Straight optics
Trademark	Global

Material

Housing material	Brass
Material sensing surface	PMMA
Surface protection	nickel plates

Mechanical data

Dimension	Ø 12 x 70 mm
Fastening detail	Nut M12x1
Tightening torque max.	15 Nm

Optical data

Ambient light max.	5000 Lux
Beam characteristic	Divergent
Light type	LED Red light

Output/Interface

Switching output	PNP Normally open (NO)
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BOS 12M-PS-1YB-S4-C BOS0043

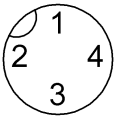
Range/Distance

Measuring range	0...200 mm
Range	0...200 mm
Rated operating distance S_n	200 mm
Ripple max. (% of U_e)	15 %
Temperature drift max. (% of S_r)	10 %

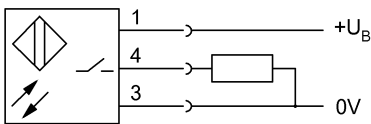
Remarks

The sensor is functional again after the overload has been eliminated.
Reference object (target): gray card, 100 x 100 90 % remission, axial approach.
Order accessories separately.
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.

Connector view



Wiring Diagram



Symbols for Optoelectronic Sensors

