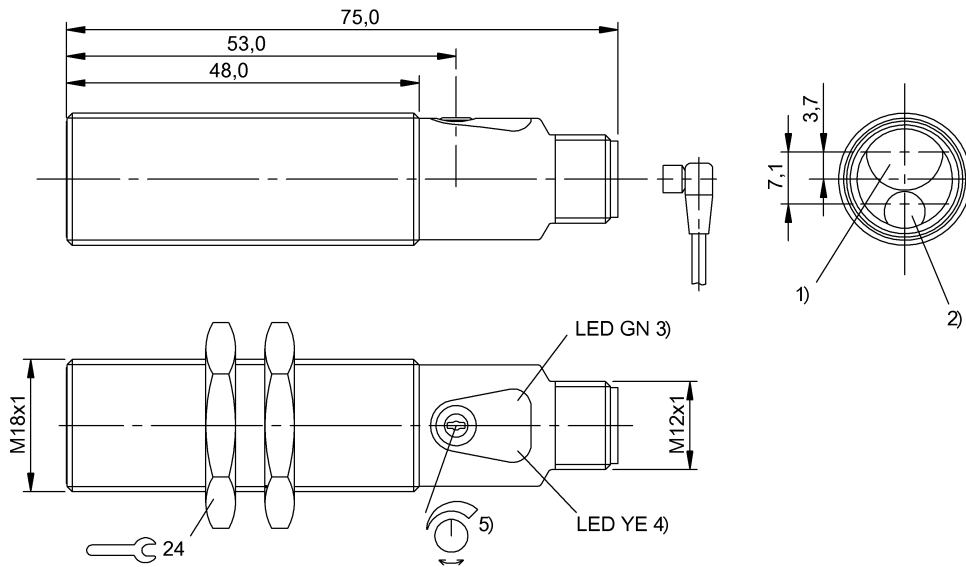


BOS 18M-PA-LH23-S4 BOS01C5



1) Optical axis receiver 2) Optical axis emitter 3) Power/short-circuit 4) Output function/Error 5) Sn



Display/Operation

Adjuster	Potentiometer 10-turn (1x)
Setting	Rated switching distance (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

Hysteresis H max. (% of Sr)	5.0 %
Load capacitance max. at Ue	0.1 µF
No-load current I _o max. at Ue	30 mA
Operating voltage U _b	10...30 VDC
Pollution degree	3
Protected against miswiring	yes
Pulse duration t max.	10000 µs
Rated insulation voltage U _i	75 V DC
Rated operating current I _e DC	100 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	100 ms
Repeat accuracy max. (% of Sr)	1.0 %
Residual current I _r max.	10 µA
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	-5...55 °C
Protection class	II
Protection type IEC 60529	IP67

General data

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

Material

Housing material	Brass
Material sensing surface	PMMA
Surface protection	nickel plates

Mechanical data

Dimension	Ø 18 x 75 mm
Distance deviation 6 % max. (% of Sr)	25.0 %
Fastening detail	Nut M18x1
Smallest part typ.	50 µm at focal point
Tightening torque max.	15 Nm 30 Nm

Optical data

Ambient light max.	10000 Lux
Average power P _o max.	390 µW
Beam characteristic	Focus, typical at 100 mm

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Laser class per IEC 60825-1	1
Light type	Laser Red light
Special optical feature	Background suppression
Wave length	660 nm

Measuring range	30...150 mm
Range	30...150 mm
Rated operating distance S_n	150 mm, Adjustable
Ripple max. (% of U_e)	15 %
Temperature drift max. (% of S_r)	15 %

Output/Interface

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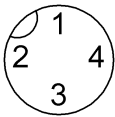
Range/Distance

Distance deviation 18 % max. (% of S_r)	12 %
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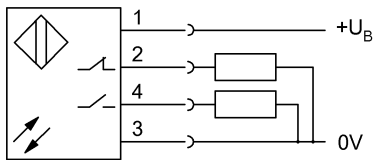
Remarks

Order accessories separately.
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.

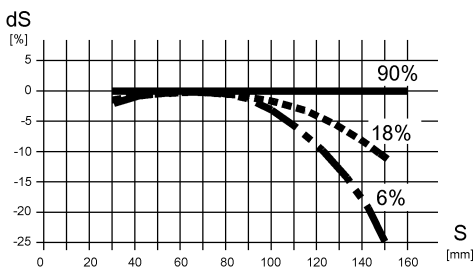
Connector view



Wiring Diagram

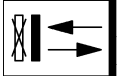


Diagram

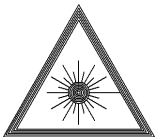


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Symbols for Optoelectronic Sensors



Warning Symbols



LASER CLASS 1 per IEC 60825-1