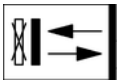
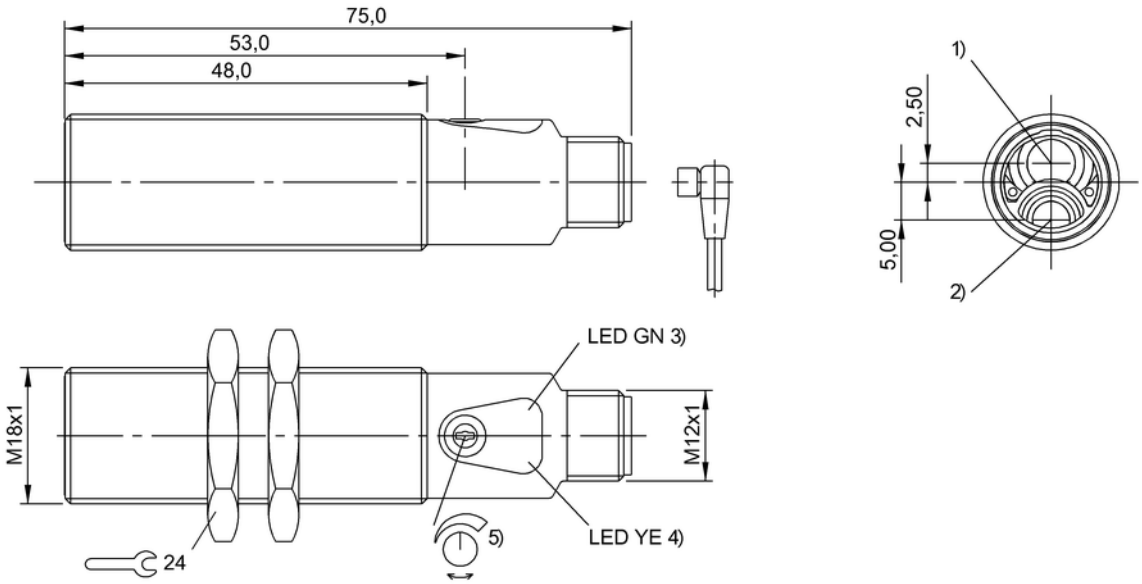
BOS 18M-PA-RH22-S4
Ordering code: BOS014W

Diffuse sensor
Series 18M
Working Range: 30...300 mm

PNP (2x), NO-NC (pins 4-2)
LED, red light
DC, direct current





1) Optical axis receiver, 2) Optical axis emitter, 3) Oper. voltage/short circuit, 4) Output function/error, 5) Sn

Characteristic data

Operating voltage	10...30 V DC
Connection	Connector, M12x1-S04
Switching freq. f max.	500 Hz
Indicator	Short circuit - LED GN, flash.
Setting	Switching distance (Sn)
Adjuster	Potentiometer 10-turn (1x)
Short-circuit protected	yes
Protected against polarity reversal	yes
Enclosure Type per IEC 60529	IP67
Protection class	II

Optical data

Principle of optical operation	Light scanner, triangulation
Switching function, optical	NO light-on - NC dark-on
Light spot size, typical	27 mm x 27 mm at 300 mm
Light type	LED, red light
Wavelength	630 nm
Ambient light max.	10,000 Lux
Optical special feature	Background suppression
LED group per IEC 62471	Exempt group

Electrical data

Rated operating voltage Ue DC	24,0 V
Effective operating current Ie	100 mA
Rated insulation voltage Ui	75 V DC
Load capacitance max. (at Ue)	0,1 µF
Ripple max. (% of Ue)	15
Switching output	PNP (2x)
Switching function	NO-NC (pins 4-2)
Turn-off delay toff max.	1,00 ms
Turn-on delay ton max.	1,00 ms
No-load current max. Io at Ue	50 mA
Voltage drop Ud max. (at Ie)	2,5 V

Mechanical data

Eff. switching distance Sr	300 mm
Capture range Sd	30...300 mm
Beam characteristic	Divergent
Range Sn	Sn = 300 mm, adjustable
Minimum operating distance	30 mm
Dist. dev. 18% max. (% of Sr)	typ. 18%
Connector type	M12x1-S04
Sensing surface material	Glass
Housing material	Brass
Mounting type	Nut M18x1
Design	Cylinder, straight optics
Ambient temperature	-5...55 °C

Basic data

Basic standard	IEC 60947-5-2

The sensor is functional again after the overload has been eliminated.
Reference object (target): Gray card, 100 x 100 90 % remission, axial approach.
Only for NFPA 79 applications (machines with a supply voltage of maximum 600 volts). Device shall be connected only by using any R/C (CYJV2) cord, having suitable ratings.
For additional information, refer to user's guide.
Order accessories separately.

Internet : www.balluff.com
Balluff Germany : +49 (0) 7158 173-0, 173-370
Balluff USA : 1-800-543-8390
Balluff China : +86 (0) 21-50 644131

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BALLUFF
sensors worldwide

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Working Range: 30...300 mm

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LISTED IND. CONT. EQ. 81U2
for use in the secondary of a class 2 source of supply

