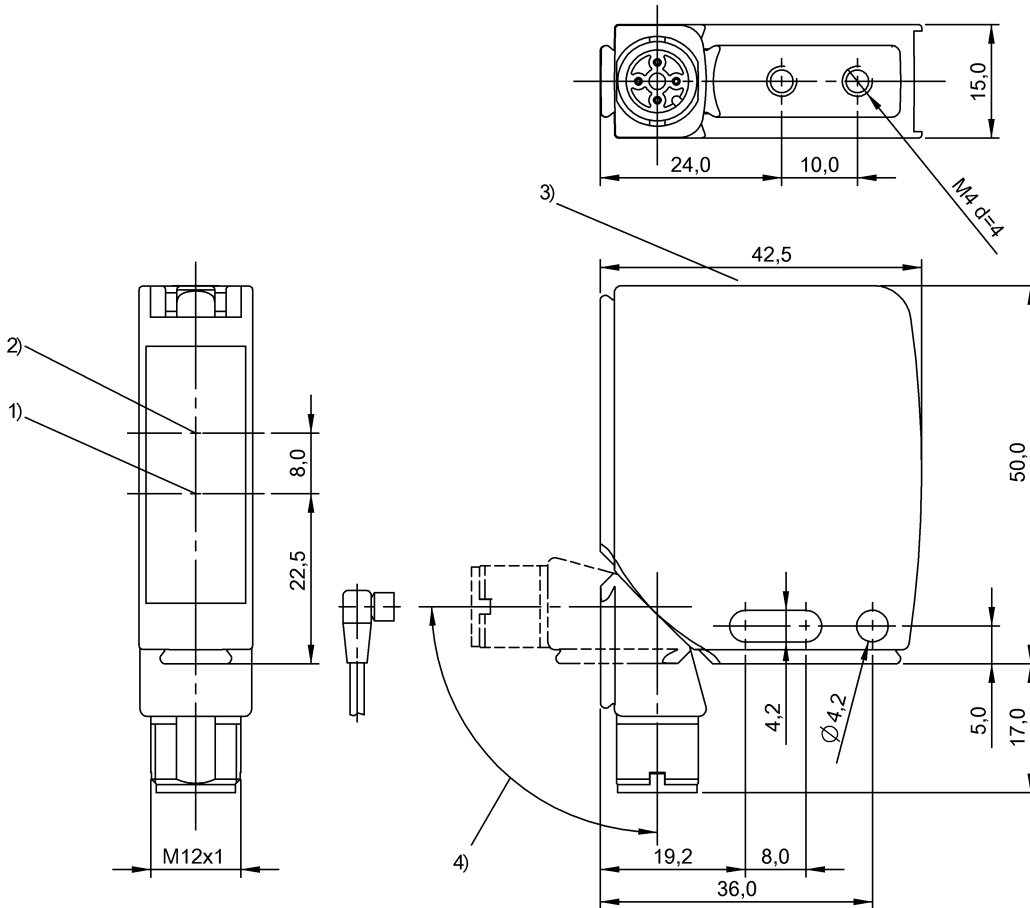
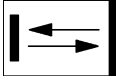


BOS 21M-NA-RD10-S4
Ordering code: BOS002W

Diffuse sensor
 Series 21M
 Working range: 10-1000 mm

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

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 sensors worldwide



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

Characteristic data

Degree of protection as per IEC 60529	IP67
Protection class	II
Short-circuit protected	yes
Protected against polarity reversal	yes
Protected against reverse connection	yes
Indicator	Stability - LED GN
Setting	Switching distance (S _n)
Adjuster	Potentiometer 270° (1x)
Switching freq. f max.	500 Hz

Ready delay t _v max.	200 ms
Utilisation category	DC 13
Hysteresis H max. (in % of S _r)	20 %
Load capacitance max. (at U _e)	1 µF
Off-state current I _r max.	10 µA
Ripple max. (% of U _e)	8 %
Switching output	NPN (2x)
Switching function	NO-NC (pins 4-2)
Turn-off delay t _{off} max.	1 ms
Turn-on delay t _{on} max.	1 ms
No-load current max. I _o at U _e	35 mA
Voltage drop U _d max. (at I _e)	2 V

Optical data

Principle of optical operation	Light scanner, energetic
Switching function, optical	NO light-on - NC dark-on
Light type	LED, red light
Wavelength	650 nm
Ambient light max.	10,000 Lux

Mechanical data

Connector type	M12x1-S04
Eff. switching distance S _r	1000 mm
Shock rating	Half-sinus, 30gn, 11ms, 3x6
Vibration rating	10-55 Hz, 1 mm ampl., 3x30 min
Ambient temperature	-25...55 °C
Degree of contamination	3
Sensing surface material	PMMA
Housing material	GD-Zn, aluminum
Surface protection	Powder coated
Repeat accur. R max. (% of S _r)	1 %

Electrical data

Operating voltage	10...30 V DC
Rated operating voltage U _e DC	24 V
Effective operating current I _e	100 mA
Rated insulation voltage U _i	75 V DC

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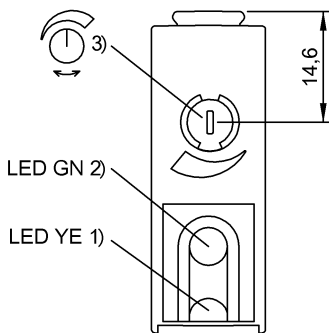
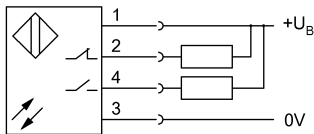
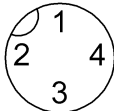
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sensors worldwide

Mounting type	Screw M4
Contact surface protection	Gold plated
Design	Block, rotatable connection
Capture range Sd	10...1000 mm
Beam characteristic	Divergent
Range Sn	Sn = 1 m, adjustable
Minimum operating distance	10 mm

Basic data

Connection	Connector, M12x1-S04
Basic standard	IEC 60947-5-2

The sensor is functional again after the overload has been eliminated.
 Reference object (target): Gray card, 200 x 200, 90 % remission, axial approach.
 With connector, e.g. BKS-S 20-... total length = switch length +18 mm.
 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.



- 1) Output function
- 2) Stability
- 3) Sensitivity