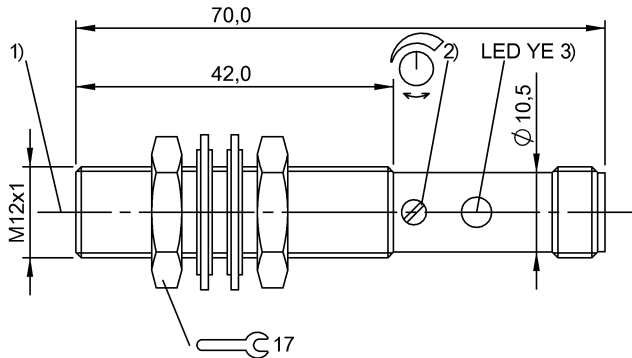
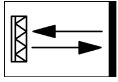


BOS 12M-PS-1QA-S4-C
Ordering code: BOS00RE

Retroreflective sensor
Series 12M
Working range: bis 1,5 m

PNP (1x), NO (pin 4)
LED, red light
DC, direct current

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1) Optical axis, 2) Sn, 3) Output function

Characteristic data

Enclosure type per IEC 60529	IP67
Short-circuit protected	yes
Protected against polarity reversal	yes
Protected against reverse connection	yes
Indicator	Output function - LED YE
Setting	Sensitivity (Sn)
Adjuster	Potentiometer 270° (1x)
Reference reflector	BOS R-1
Switching freq. f max.	200 Hz

Optical data

Principle of optical operation	Retro-reflective sensor
Switching function, optical	NO: dark-on
Light type	LED, red light
Wavelength	660 nm
Ambient light max.	5,000 Lux
Polarizing filter	yes

Electrical data

Operating voltage	10...30 V DC
Rated operating voltage Ue DC	24 V
Effective operating current Ie	200 mA
Rated insulation voltage Ui	75 V DC
Ready delay tv max.	100 ms
Utilization category	DC 13
Load capacitance max. (at Ue)	0,5 µF
Output resistance Ra	33 kOhm
Off-state current Ir max.	50 µA
Ripple max. (% of Ue)	15 %
Switching output	PNP (1x)
Switching function	NO (pin 4)
Turn-off delay toff max.	2,5 ms
Turn-on delay ton max.	2,5 ms

No-load current max. Io at Ue	20 mA
Voltage drop Ud max. (at Ie)	2,5 V

Mechanical data

Connector type	M12x1-S04
Eff. switching distance Sr	1500 mm
Shock rating	Half-sinus, 30gn, 11ms, 3x6
Vibration rating	10-55 Hz, 1 mm ampl., 3x30 min
Temp. drift max. (% of Sr)	10
Ambient temperature	-5...55 °C
Degree of contamination	3
Sensing surface material	PMMA
Housing material	Brass
Surface protection	Nickel-plated
Mounting type	Nut M12x1
Contact surface protection	Gold plated
Design	Cylinder, straight optics
Operating range Ro	0...1.5 m
Beam characteristic	Divergent
Range Sn	Sn = 1.5 m, adjustable

Basic data

Connection	Connector, M12x1-S04
Basic standard	IEC 60947-5-2
The sensor is functional again after the overload has been eliminated.	
Polarizing filters prevent spurious switching due to reflecting and shiny parts.	
Operating object (test target): Gray card, 200 x 200, 90 % remission, lateral approach, direction of movement vertical to plane of lens axes.	
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.	
Order accessories separately.	

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Definitions see main catalog

subject to change

