

Generous detection range for high reliability

PHOTOELECTRIC SENSORS

Photoelectric sensors from Balluff reliably recognize the presence of objects. They check shape, color, distance or thickness equally reliably. This is because they have a significantly greater detection range compared to inductive or capacitive technology.

In the area of photoelectric sensors we offer a huge product variety. Sensors using all light types from red light to infrared to laser technology.

Sensors with the most different ranges, with and without background suppression, as well as many different form factors. For specialty applications, mini-sensors, color sensors, light band and contrast sensors round out our portfolio. With Balluff you achieve not only the highest reliability, but also the greatest flexibility.

The most important benefits

- All light types, all principles
- Different ranges from near to far
- Tailored to the requirements of automation, mounting and handling
- Robust and reliable even under adverse environmental conditions
- Flexibility for planning and installation through well-conceived technical data





Sensors

RFID

Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

Safety

Industrial Networking

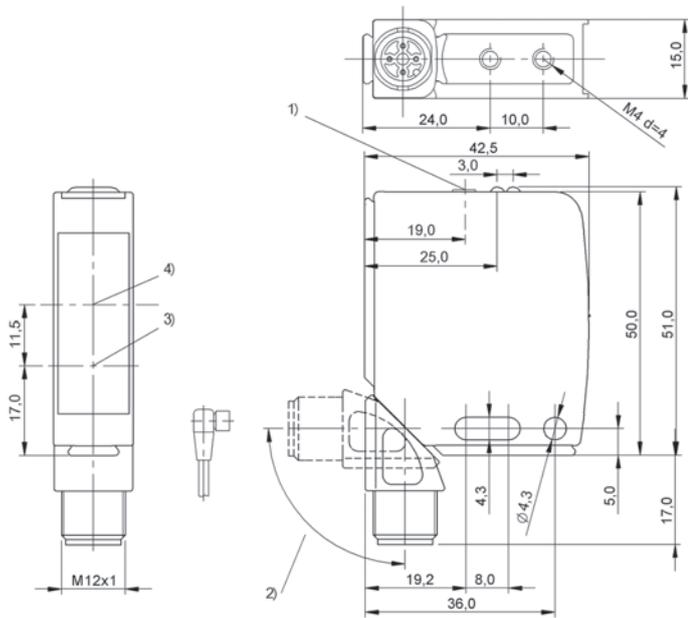
Power Supplies

Connectivity

Accessories



	BOS026R BOS 21M-UUI-RP30-S4
Series	21M
Dimension	15 x 51 x 42.5 mm
Interface	IO-Link 1.1 2x PNP/NPN/push-pull NO/NC
Input function	Reset counter
Principle of operation	Photoelectric sensor
Principle of optical operation	Diffuse energetic, diffuse with background suppression, retroreflective, through-beam (emitter), through-beam (receiver), depends on setting
Special optical feature	Multifunction
Beam characteristic	Divergent
Light type	LED, red light
Light spot size	Ø 50 mm at 1 m
Range	adjustable
Connection	Connector, M12x1 connector, 4-pin
Housing material	Zinc, die-cast Aluminum, glass, PC
Material sensing surface	Glass, anti-glare
Operating voltage U_b	10...30 VDC
Approval/Conformity	CE, EAC, cULus
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1) Display and control panel, 2) rotatable 270°, 3) Optical axis emitter, 4) Optical axis receiver

BOS026R



	BOS01R8 BOS 08E-PS-KD20-00,2-S49	BOS01NN BOS 08E-PS-KD20-S49	BOS01Y2 BOS 12M-PS-ID10-S4	
PNP normally open				
PNP normally open, PNP normally closed				
Series	08E	08E	12M	
Dimension	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 12 x 60 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED infrared	
Light spot size	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	45 x 45 mm at 400 mm	
Range	1...60 mm	1...60 mm	1...400 mm	
Connection	Cable with connector, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	Connector, M12x1 connector, 4-pin	
Housing material	Stainless steel	Stainless steel	Brass	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE	cULus, CE	CE, cULus, EAC	
Trademark	—	—	—	
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	BOS01TP BOS 12M-PS-RD10-S4	BOS01TN BOS 12M-PS-RD11-S4	BOS01TU BOS 12M-PS-RD12-S4		
				BOS01EY BOS 18M-PA-ID20-S4	BOS01NF BOS 18M-PA-LD20-S4
	12M	12M	12M	18M	18M
	Ø 12 x 60 mm	Ø 12 x 60 mm	Ø 12 x 60 mm	Ø 18 x 75 mm	Ø 18 x 75 mm
	—	—	—	—	—
	Photoelectric sensor				
	Diffuse sensor, energetic				
	—	—	—	—	—
	Divergent	Divergent	Divergent	Divergent	Focus, typical at 400 mm
	LED, red light	LED, red light	LED, red light	LED infrared	Laser red light
	28 x 28 mm at 250 mm	Ø 8 mm at 100 mm	22 x 22 mm at 200 mm	Ø 50 mm at 600 mm	Ø 2 mm at 250 mm
	0...250 mm	1...100 mm	1...200 mm	1...800 mm	1...250 mm
	Connector, M12x1 connector, 4-pin				
	Brass	Brass	Brass	Brass	Brass
	PMMA	PMMA	PMMA	Glass, anti-glare	Glass
	10...30 VDC				
	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	cULus, CE, EAC	cULus, CE, EAC
	Global	Global	Global	—	—
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PNP normally open	BOS01C1 BOS 18M-PS-RD20-S4	BOS01E7 BOS 18M-PS-RD21-S4		
PNP normally open, PNP normally closed	BOS01CF BOS 18M-PA-RD20-S4	BOS01CA BOS 18M-PA-RD21-S4		
PNP normally open/normally closed, IO-Link 1.1			BOS01UA BOS 18M-PI-RD30-S4	
PNP normally open/normally closed				
Series	18M	18M	18M	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 50 mm at 600 mm	Ø 25 mm at 300 mm	Ø 50 mm at 600 mm	
Range	0...600 mm	0...300 mm	1...500 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Brass	Brass	Brass	
Material sensing surface	Glass, anti-glare	Glass, anti-glare	Glass	
Operating voltage U _b	10...30 VDC	10...30 VDC	18...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	cULus, CE, EAC	
Trademark	—	—	—	
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	BOS01FA BOS 18M-PS-RD23-S4				
			BOS01KE BOS 18E-PA-RD20-S4	BOS023R BOS 18E-PA-RD30-S4	
					BOS023E BOS 18E-PI-RD30-S4
		BOS01J8 BOS 18M-PUV-RD30-S4			
	18M	18M	18E	18E	18E
	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
	—	—	—	—	—
	Divergent	Divergent	Divergent	Divergent	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
	Ø 25 mm at 300 mm	Ø 50 mm at 600 mm	Ø 50 mm at 600 mm	Ø 50 mm at 600 mm	Ø 50 mm at 600 mm
	0...400 mm	0...500 mm	500 mm	500 mm	1...500 mm
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Brass	Brass	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4571)
	Glass, anti-glare	Glass	Glass	PMMA	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	18...30 VDC
	cULus, CE, EAC	CE, cULus, EAC	CE, cULus, Ecolab, FDA compliant, EAC	cULus, Ecolab	cULus, CE, EAC
	—	—	—	—	—
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PNP normally open				
PNP normally open, PNP normally closed	BOS01KH BOS G18E-PA-RD20-S4	BOS0240 BOS G18E-PA-RD30-S4	BOS00LT BOS 18KW-PA-1PD-S4-C	
Series	G18E	G18E	18KW	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 14 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	Infrared	
Light spot size	Ø 50 mm at 600 mm	—	Ø 100 mm at 300 mm	
Range	500 mm	500 mm	0...400 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Stainless steel (1.4404)	Stainless steel (1.4404)	PBT	
Material sensing surface	Glass	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, Ecolab, FDA compliant, EAC	Ecolab, cULus, CE, EAC	CE, cULus, EAC	
Trademark	—	—	Global	
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BOS01NA BOS 18KF-PA-1XA-SA1-C-00,2					
	BOS00K9 BOS 18KF-PA-1XA-S4-C	BOS00K0 BOS 18KF-PA-1PE-C-02	BOS00JZ BOS 18KF-PA-1PD-S4-C	BOS00K1 BOS 18KF-PA-1PE-S4-C	
18KF	18KF	18KF	18KF	18KF	
Ø 18 x 67 mm	Ø 18 x 71.5 mm	Ø 18 x 77 mm	Ø 18 x 81.5 mm	Ø 18 x 81.5 mm	
—	—	—	—	—	
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
—	—	—	—	—	
Divergent	Divergent	Divergent	Divergent	Divergent	
Infrared	Infrared	Infrared	Infrared	Infrared	
Ø 80 mm at 100 mm	Ø 80 mm at 100 mm	Ø 200 mm at 600 mm	Ø 100 mm at 300 mm	Ø 200 mm at 600 mm	
0...100 mm	0...100 mm	0...700 mm	0...400 mm	0...700 mm	
Cable with connector, Molex Mini-Fit 4.2, 4-pin, 0.19 m, PVC	Connector, M12x1 connector, 4-pin	Cable, 2.00 m, PVC	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
PBT	PBT	PBT	PBT	PBT	
PMMA	PMMA	PMMA	PMMA	PMMA	
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
CE, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
—	Global	Global	Global	Global	
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PNP normally open		BOS01WH BOS Q08M-PS-LD20-0,02-S49	BOS01WC BOS Q08M-PS-LD20-S49	
PNP normally open, PNP normally closed	BOS00JP BOS 18KF-PA-1LOC-S4-C			
Series	18KF	Q08M	Q08M	
Dimension	Ø 18 x 81.5 mm	8 x 44 x 8 mm	8 x 59 x 8 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Collimated	Collimated	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	Ø 1 mm at 150 mm	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	
Range	0...350 mm	60 mm	60 mm	
Connection	Connector, M12x1 connector, 4-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	
Housing material	PBT	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	cULus, CE, EAC	cULus, CE, EAC	
Trademark	Global	—	—	
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	BOS01RZ BOS Q08M-PS-KD20-00,2-S49	BOS01RJ BOS Q08M-PS-KD20-S49	BOS021J BOS R01E-PS-KD20-00,2-S49	BOS021K BOS R01E-PS-KD20-02	BOS0123 BOS 5K-PS-ID10-02
	Q08M	Q08M	R01E	R01E	5K
	8 x 44 x 8 mm	8 x 59 x 8 mm	20 x 32 x 9 mm	20 x 32 x 9 mm	10.8 x 32.7 x 19.5 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
	—	—	—	—	—
	Divergent	Divergent	Divergent	Divergent	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light	Infrared
	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 50 mm at 500 mm
	1...60 mm	1...60 mm	1...100 mm	1...100 mm	0...900 mm
	Cable with connector, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR	Cable, 2.00 m, PVC
	Zinc, die-cast	Zinc, die-cast	Stainless steel (1.4404)	Stainless steel (1.4404)	PC PBT
	PMMA	PMMA	PA	PA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, Ecolab, EAC	cULus, CE, Ecolab, EAC	cULus, CE, EAC
	—	—	—	—	Global
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PNP normally open	BOS015J BOS 5K-PS-ID10-S49	BOS0124 BOS 5K-PS-ID10-S75	BOS0127 BOS 5K-PS-RD11-02	
PNP normally open, PNP normally closed				
Series	5K	5K	5K	
Dimension	10.8 x 43.5 x 19.5 mm	10.8 x 43.5 x 19.5 mm	10.8 x 32.7 x 19.5 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Infrared	Infrared	LED, red light	
Light spot size	Ø 50 mm at 500 mm	Ø 50 mm at 500 mm	Ø 8 mm at 180 mm	
Range	0...900 mm	0...900 mm	50...200 mm	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PVC	
Housing material	PC PBT	PC PBT	PC PBT	
Material sensing surface	PMMA	PMMA	PC	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC	cULus, CE, EAC	cULus, CE	
Trademark	Global	Global	Global	
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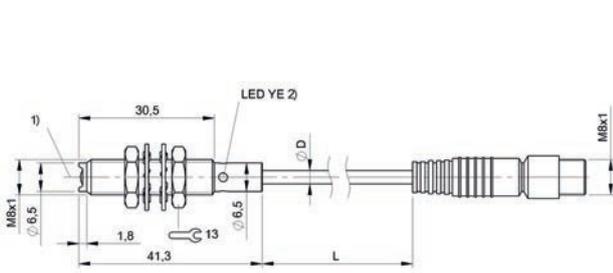
	BOS015N BOS 5K-PS-RD11-S49	BOS0128 BOS 5K-PS-RD11-S75			
			BOS0031 BOS 21M-PA-ID10-S4	BOS0032 BOS 21M-PA-LD10-S4	BOS0033 BOS 21M-PA-RD10-S4
	5K	5K	21M	21M	21M
	10.8 x 43.5 x 19.5 mm	10.8 x 43.5 x 19.5 mm	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm
	—	—	—	—	—
	Photoelectric sensor				
	Diffuse sensor, energetic				
	—	—	—	—	—
	Divergent	Divergent	Divergent	Collimated	Divergent
	LED, red light	LED, red light	LED infrared	Laser red light	LED, red light
	Ø 8 mm at 180 mm	Ø 8 mm at 180 mm	—	—	—
	50...200 mm	50...200 mm	50...2000 mm	0...600 mm	10...1000 mm
	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	PC PBT	PC PBT	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum
	PC	PC	PMMA	PMMA	PMMA
	10...30 VDC				
	cULus, CE	cULus, CE	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
	Global	Global	—	—	—
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PNP normally open, PNP normally closed			BOS01FM BOS 23K-PA-RD10-S4	
PNP normally open/normally closed, IO-Link 1.1				
PNP normally open/normally closed	BOS0175 BOS 23K-PU-LD20-S4	BOS016Z BOS 23K-PU-RD10-S4		
Relay normally open/normally closed				
Series	23K	23K	23K	
Dimension	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	
Input function	Key disable on/off, Same function as button	Key disable on/off, Same function as button	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	Collimated	Focus, typical at 500 mm	Focus, typical at 500 mm	
Light type	Laser red light	LED, red light	LED, red light	
Light spot size	2.2 x 2.2 mm at 800 mm	15 x 15 mm at focal point	15 x 15 mm at focal point	
Range	5...1200 mm	0...2000 mm	0...2000 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	PC ABS	PC ABS	PC ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, Ecolab, cULus	Ecolab, CE, cULus, EAC	Ecolab, CE, cULus, EAC	
Trademark	—	—	—	
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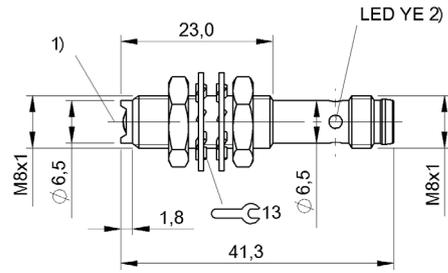


	BOS01CJ BOS 50K-PA-RD10-S4		BOS01JJ BOS 50K-PI-RD11-S4		
				BOS01JA BOS 50K-PU-RD11-S4	
BOS016Z BOS 23K-PU-RD10-S4					BOS01K2 BOS 64K-AA-ID10-TG
23K	50K	50K	50K	50K	64K
23 x 51 x 52.4 mm	28.5 x 80.5 x 62 mm	28.5 x 80.5 x 62 mm	28.5 x 80.5 x 62 mm	28.5 x 80.5 x 62 mm	25 x 69.7 x 100.4 mm
Key disable on/off, Same function as button	—	—	—	—	—
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
—	—	—	—	—	—
Focus, typical at 500 mm	Divergent	Divergent	Divergent	Divergent	Divergent
LED, red light	LED, red light	LED, red light	LED, red light	LED, red light	Infrared
15 x 15 mm at focal point	50 x 50 mm at 2 m	80 x 80 mm at Sr	80 x 80 mm at Sr	80 x 80 mm at Sr	—
0...2000 mm	1...2000 mm	1...3500 mm	1...3500 mm	1...3500 mm	50...2000 mm
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Screw terminals
PC ABS	PC ABS	PC ABS	PC ABS	PC ABS	PBT, GF30
PMMA	Glass	Glass	Glass	Glass	PC
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	24...60 VDC/24...240 VAC
Ecolab, CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	cULus, CE, EAC	CE, cULus, EAC
—	—	—	—	—	—
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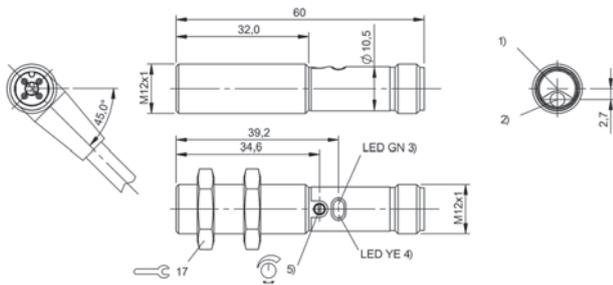
1) Optical axis, 2) Output function

BOS01R8



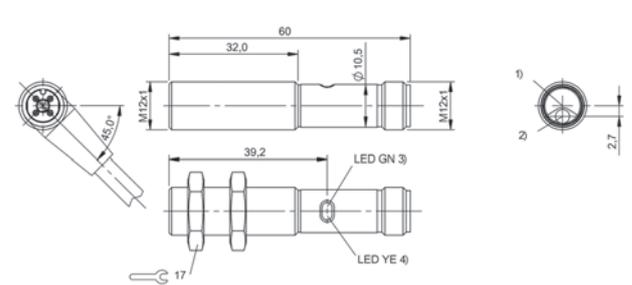
1) Optical axis, 2) Output function

BOS01NN



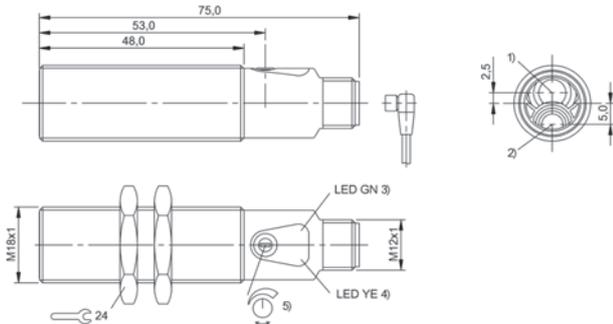
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01Y2, BOS01TP



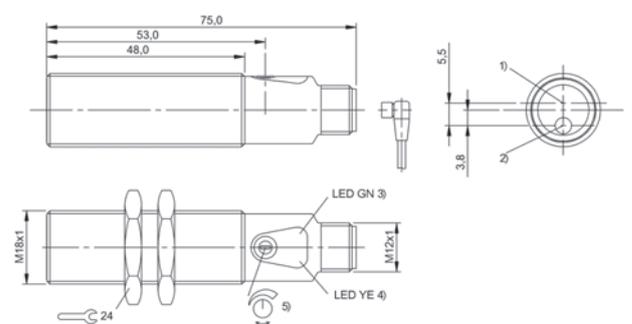
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area

BOS01TN, BOS01TU



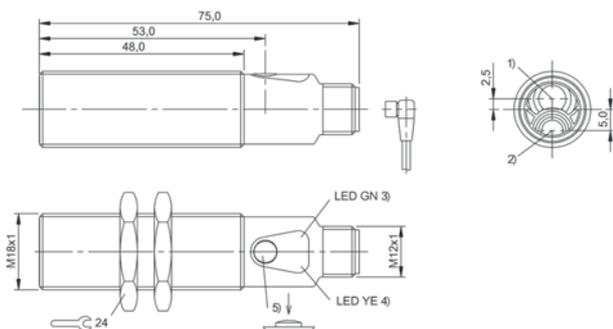
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01EY, BOS01CF, BOS01CA, BOS01C1, BOS01E7



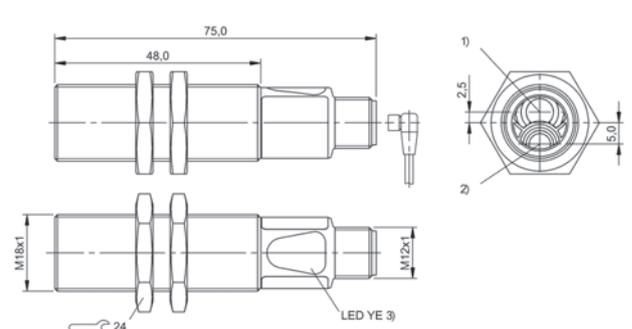
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage/Error, 4) Light reception/limit area, 5) Sn

BOS01NF



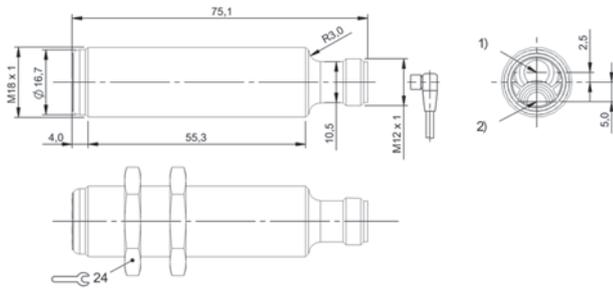
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Light reception/limit area, 5) Sn

BOS01UA, BOS01J8, BOS023E



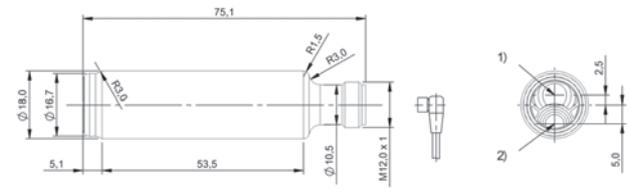
1) Optical axis receiver, 2) Optical axis emitter, 3) Light reception/limit area

BOS01FA



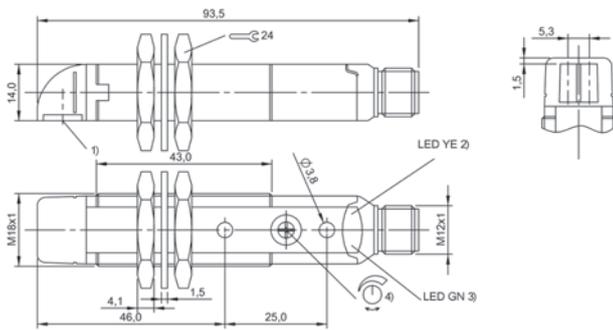
1) Optical axis receiver, 2) Optical axis emitter

BOS01KE, BOS023R



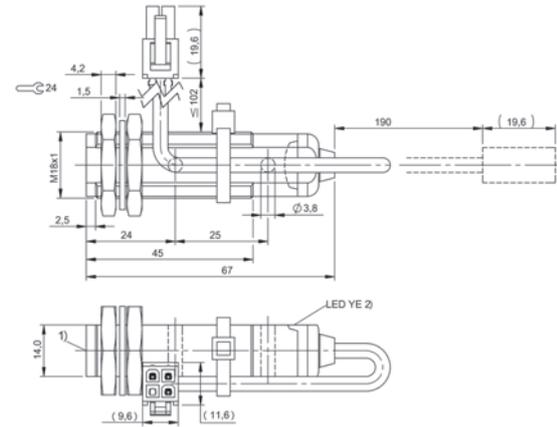
1) Optical axis receiver, 2) Optical axis emitter

BOS01KH, BOS0240



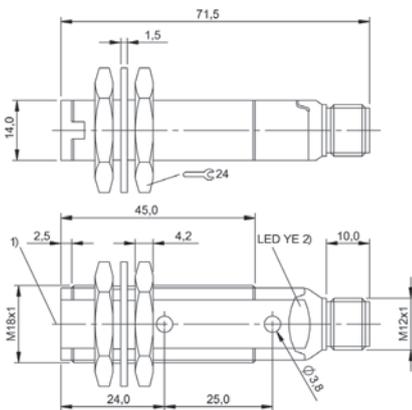
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS001T



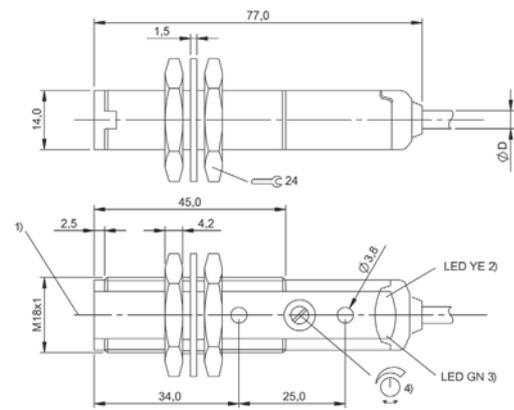
1) Optical axis, 2) Output function

BOS01NA



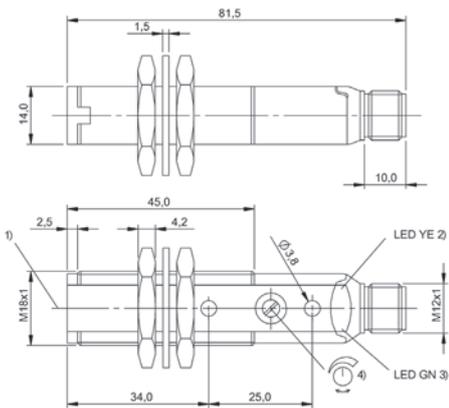
1) Optical axis, 2) Output function

BOS000K9



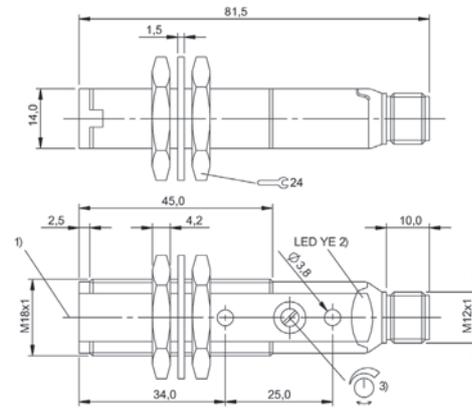
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS000K0



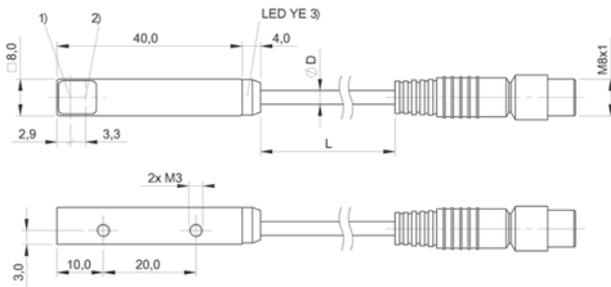
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00JZ, BOS00K1



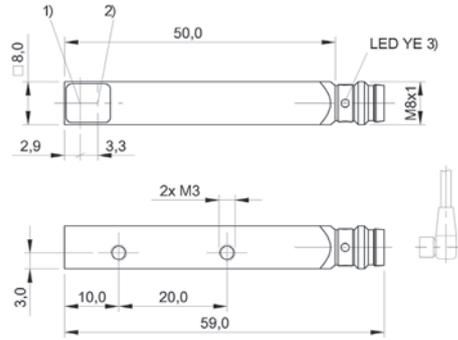
1) Optical axis, 2) Output function, 3) Sn

BOS00JP



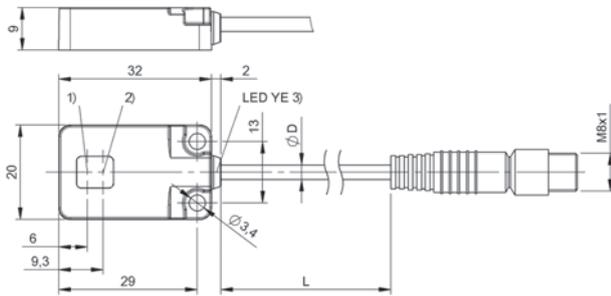
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01WH, BOS01RZ



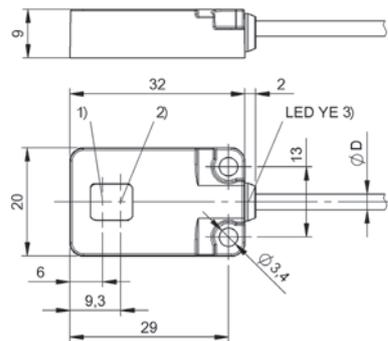
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01WC, BOS01RJ



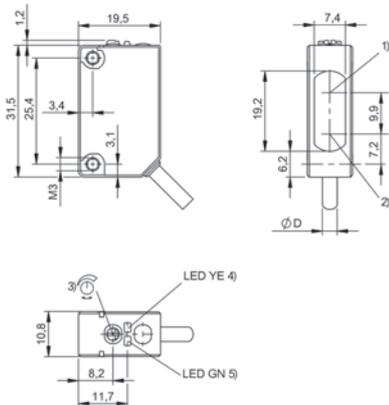
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021J



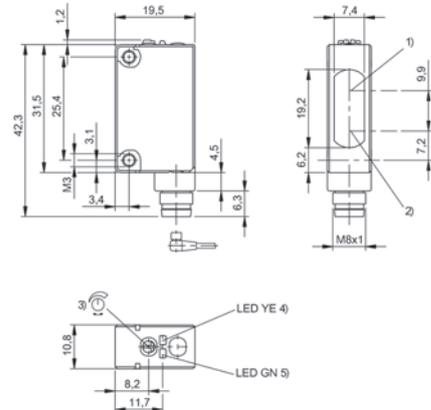
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021K



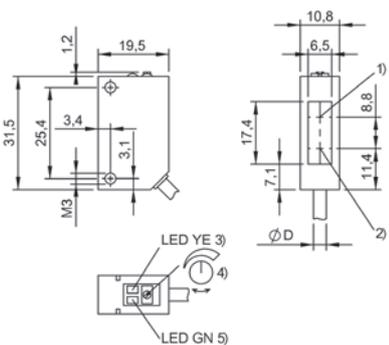
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS0123



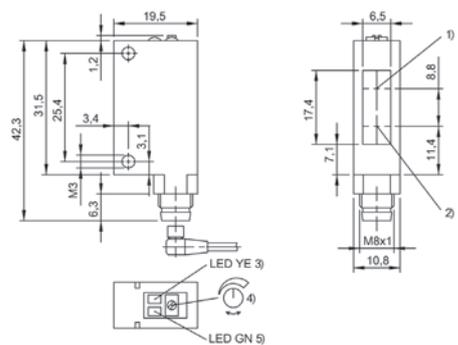
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS015J, BOS0124



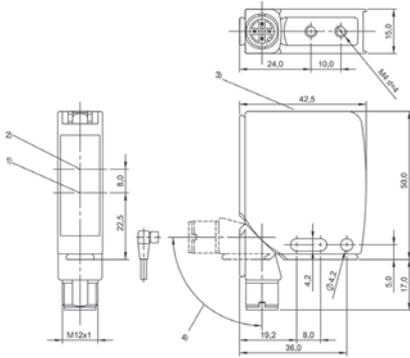
1) Optical axis receiver, 2) Optical axis emitter, 3) Output function, 4) Sn, 5) stability

BOS0127

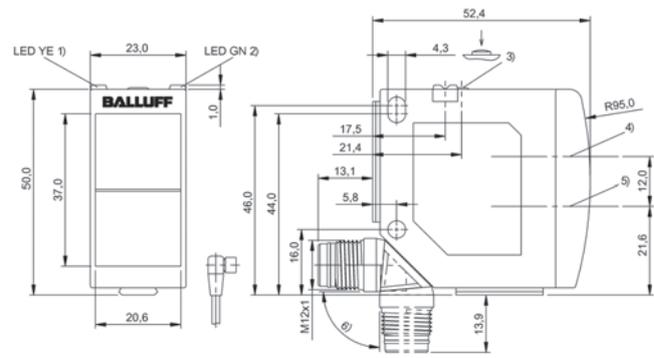


1) Optical axis receiver, 2) Optical axis emitter, 3) Output function, 4) Sn, 5) stability

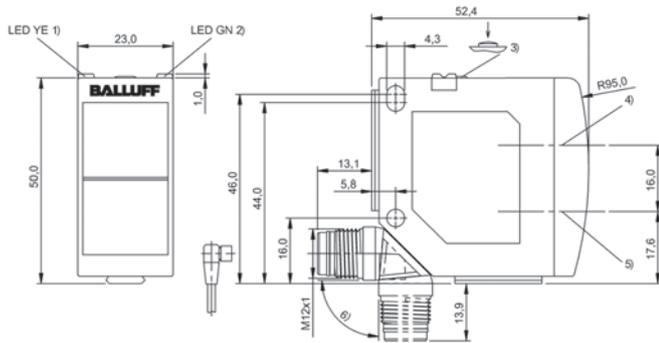
BOS015N, BOS0128



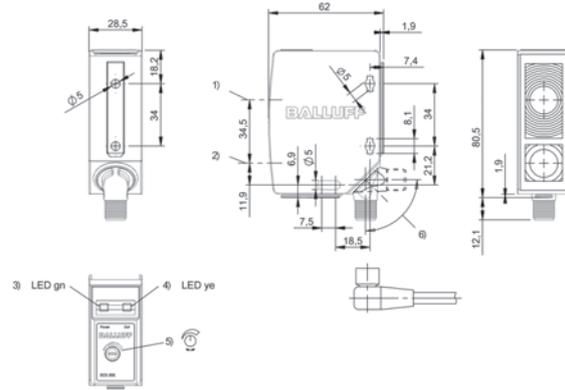
1) Optical axis emitter, 2) Optical axis receiver, 3) Display and control panel, 4) rotatable 270°
BOS0031, BOS0032, BOS0033



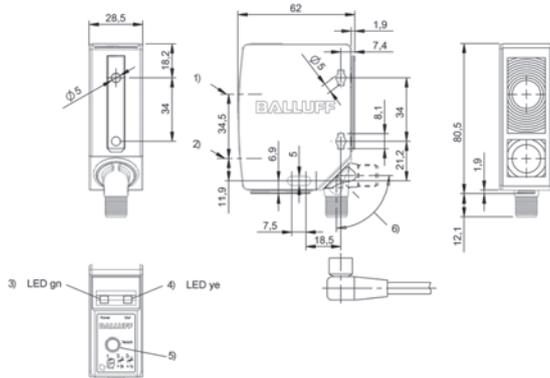
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°
BOS0175



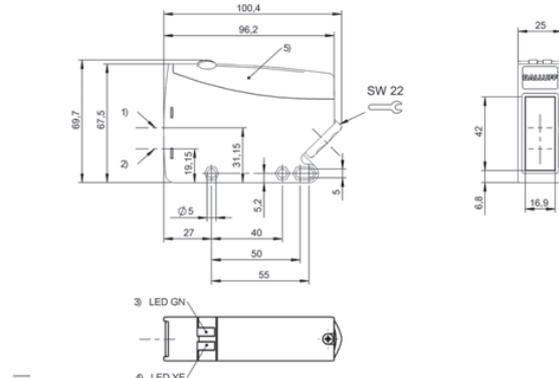
1) Output function/Error, 2) Power/setting mode, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°
BOS01FM, BOS016Z



1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn, 6) rotatable 270°
BOS01CJ



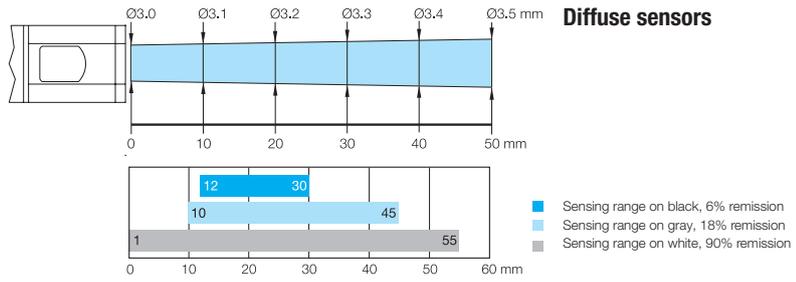
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception, 5) Teach-In button, 6) rotatable 270°
BOS01JJ, BOS01JA



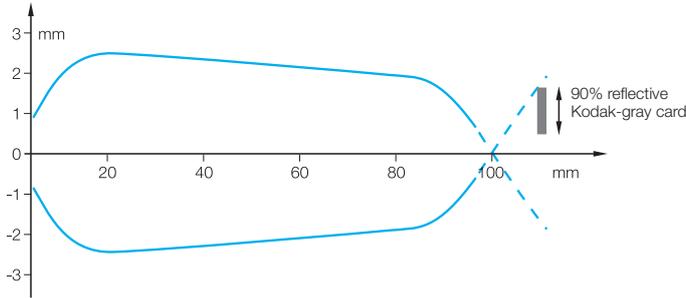
1) Optical axis receiver, 2) Optical axis emitter, 3) Stability, 4) Output function, 5) Removable cover
BOS01K2

BOS 2K

**Light spot diameter
Diffuse, 50 mm**

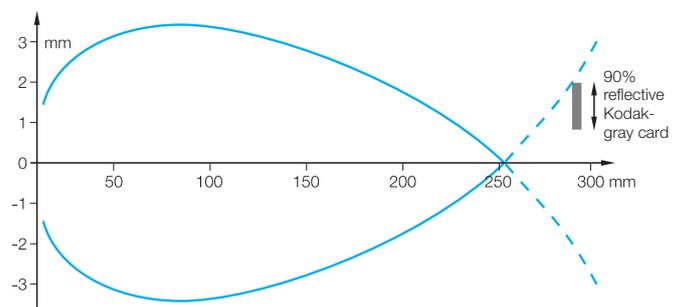


Diffuse sensor BOS 6K-...-1HA-...



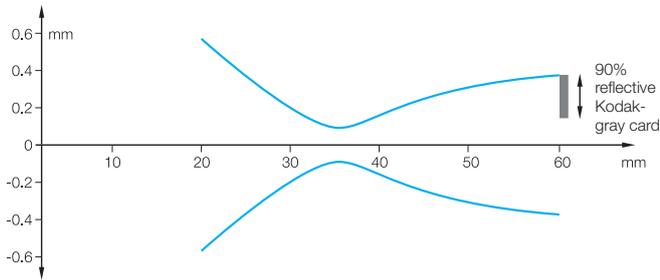
Sensing distance with side approach of Kodak-gray card.

Diffuse sensor BOS 6K-...-10C-...



Sensing distance with side approach of Kodak-gray card.

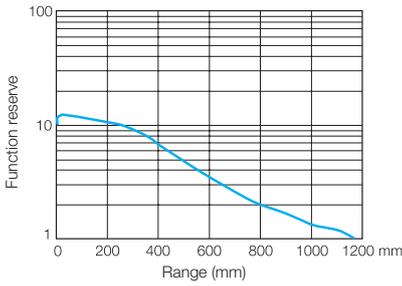
Diffuse sensor BOS 6K-...-1LHA-...



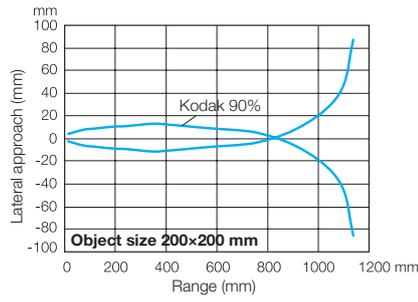
Sensing distance with side approach of Kodak-gray card.

Diffuse sensor BOS 5K-...-ID10-...

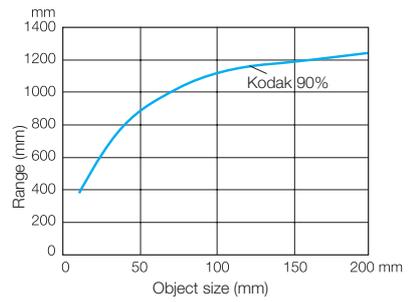
Receiving characteristics



Characteristic response curve

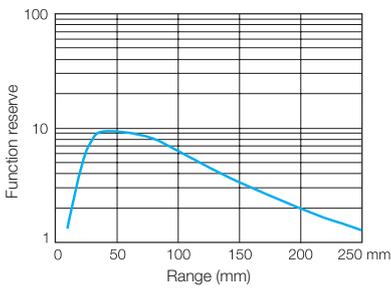


Object size vs. hysteresis

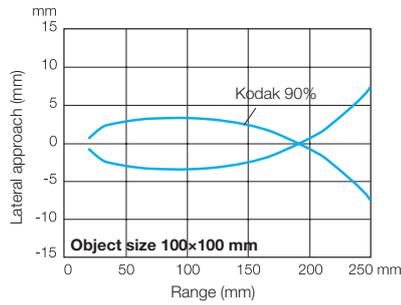


Diffuse sensor, small beam BOS 5K-...-RD11-...

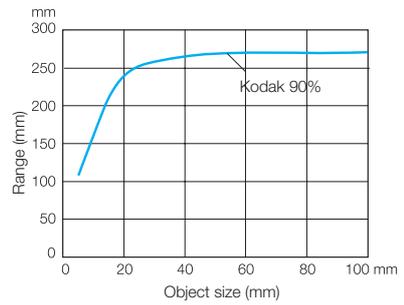
Receiving characteristics



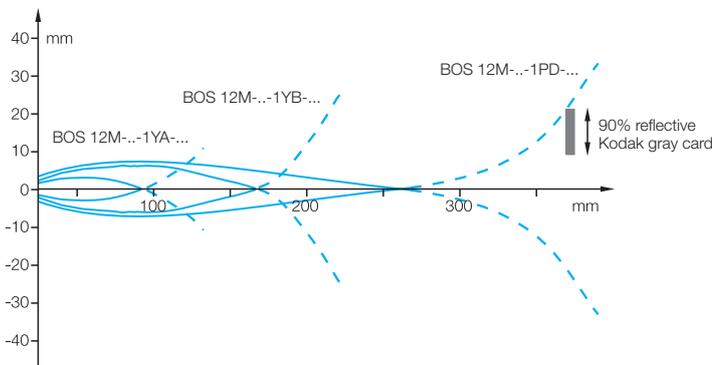
Characteristic response curve



Object size vs. hysteresis

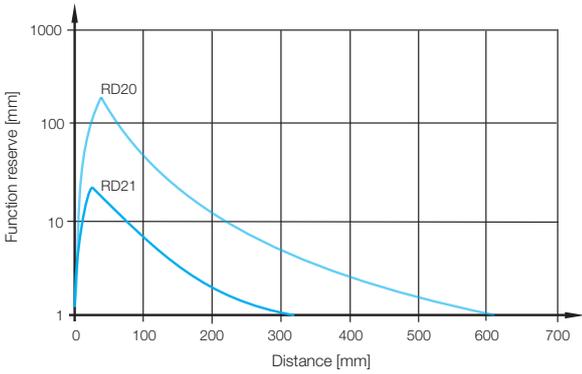


Diffuse sensor BOS 12M-...-1YA/1YB/1PD-...

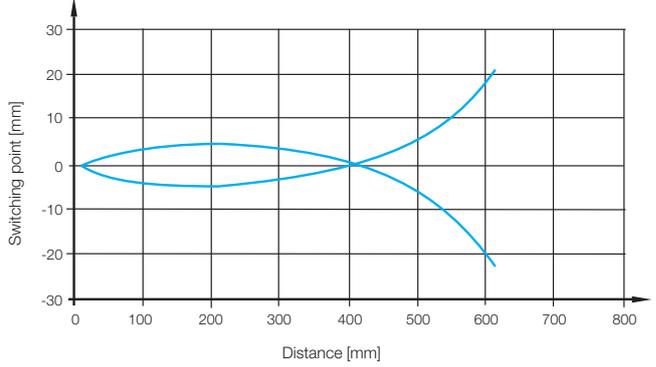


Sensing distance measured with side approach of Kodak gray card.

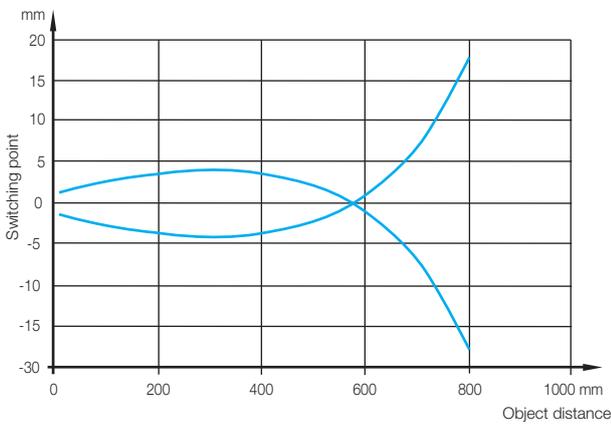
**Diffuse sensor BOS 18M...RD
function reserve**



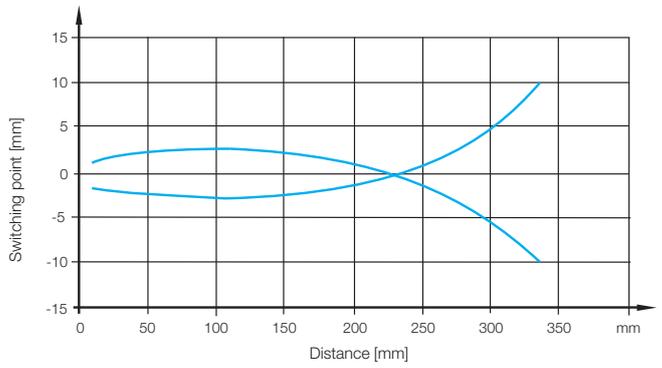
**Diffuse sensor BOS 18M...RD20
Response curve**



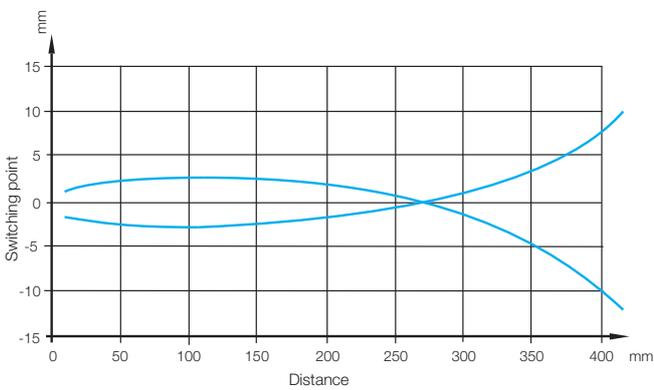
Diffuse sensor BOS 18M...ID20-S4 response curve



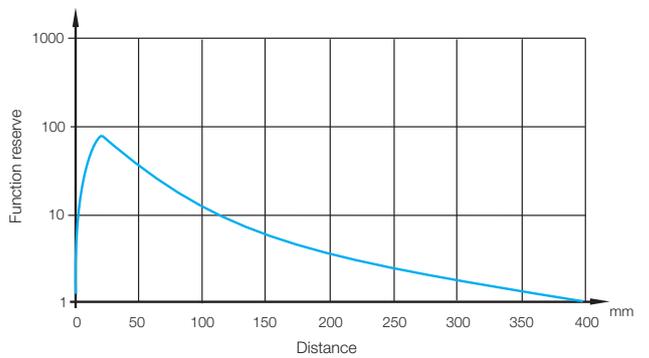
**Diffuse sensor BOS 18M...RD21..
Response curve**



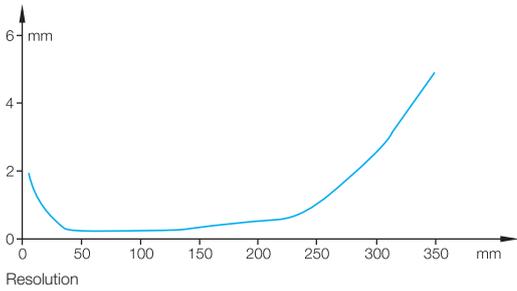
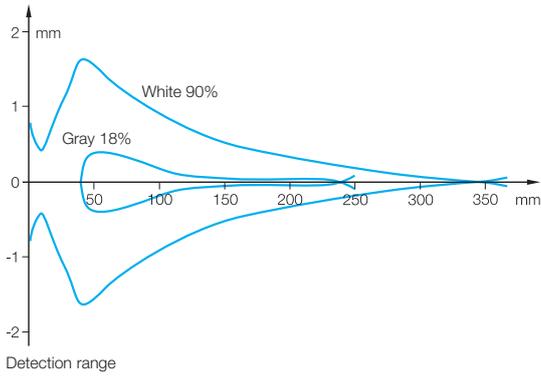
**Diffuse sensor BOS 18M...RD23
response curve**



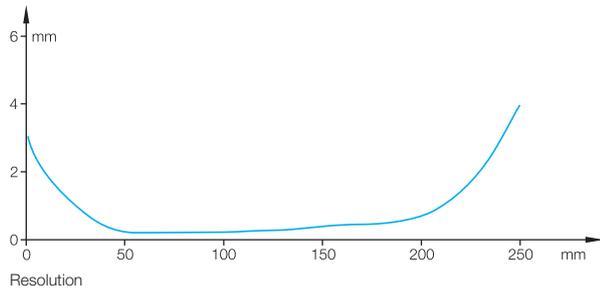
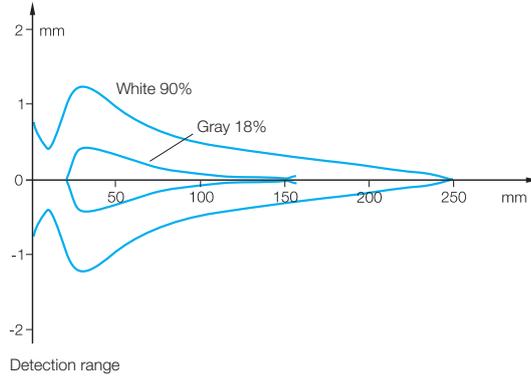
**Diffuse sensor BOS 18M...RD23
function reserve**



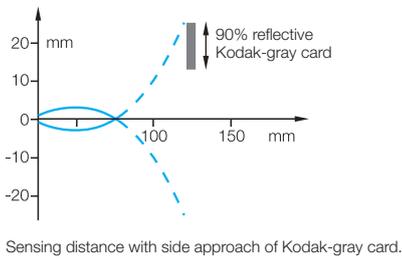
Diffuse sensor BOS 18M-...-LD10-...



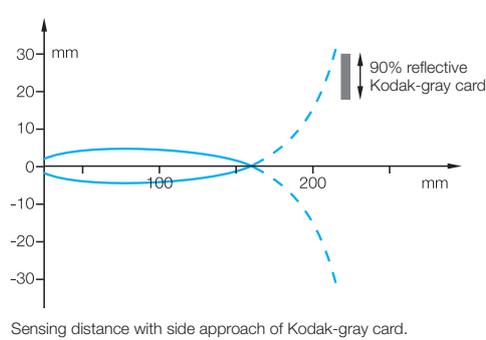
Diffuse sensor BOS 18MR-...-LD10-...



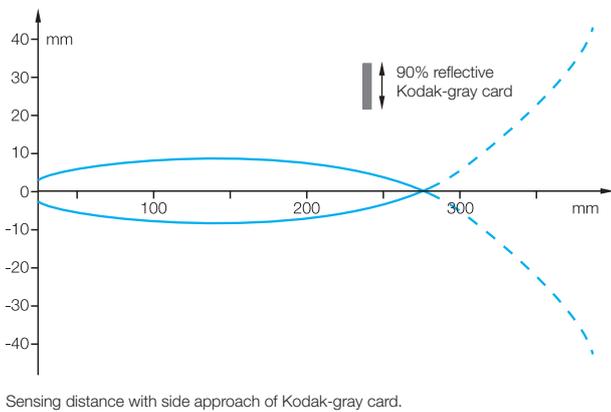
Diffuse sensor BOS 18E-...-1YA-...



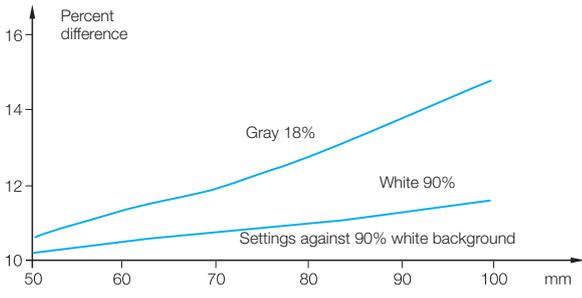
Diffuse sensor BOS 18E-...-1YB-...



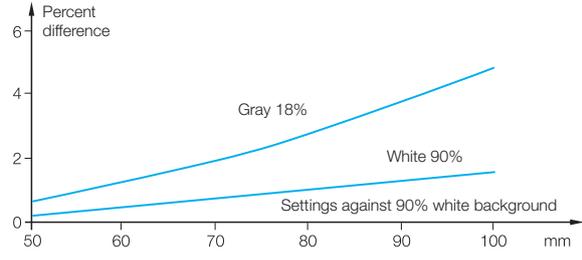
Diffuse sensor BOS 18E-...-1YD-...



Diffuse sensor BOS 18KF-..-1HA-...

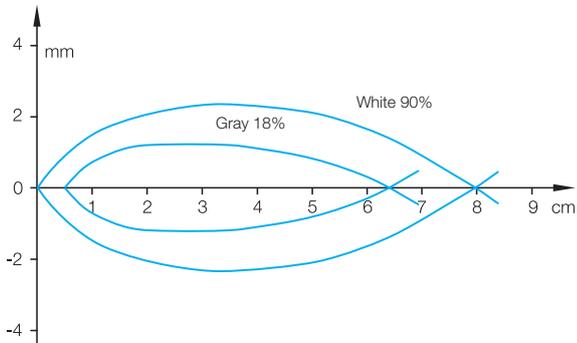


Tolerance with standard setting

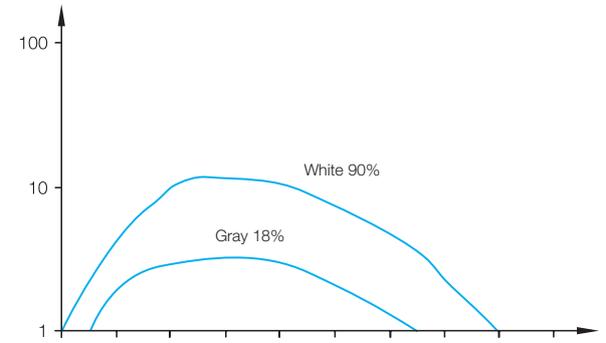


Tolerance with fine setting

Diffuse sensor BOS 18KF-..-1N1R-...

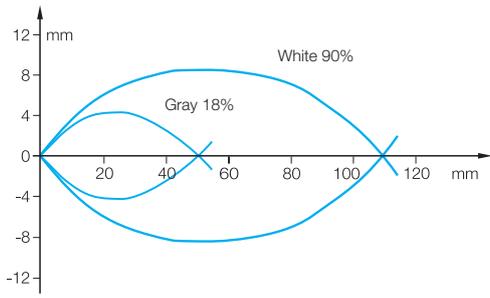


Detection range

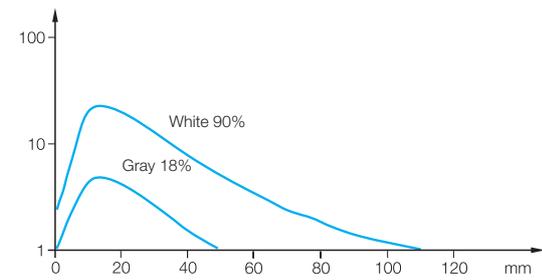


Function reserve

Diffuse sensor BOS 18KF-..-1XA-...

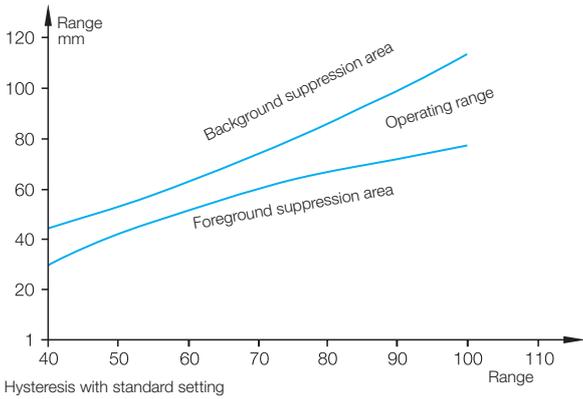


Detection range

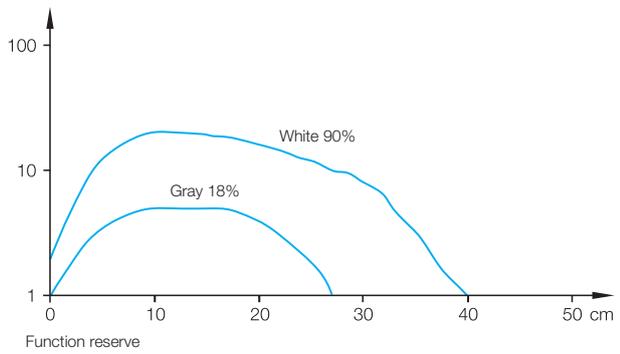
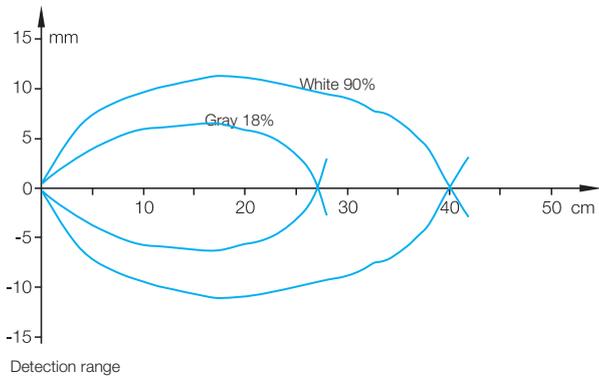


Function reserve

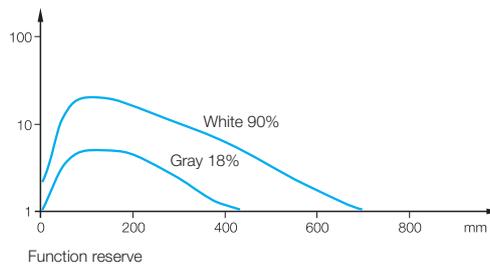
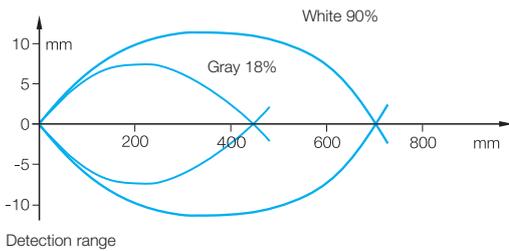
Diffuse sensor BOS 18KF-..-1GA-...



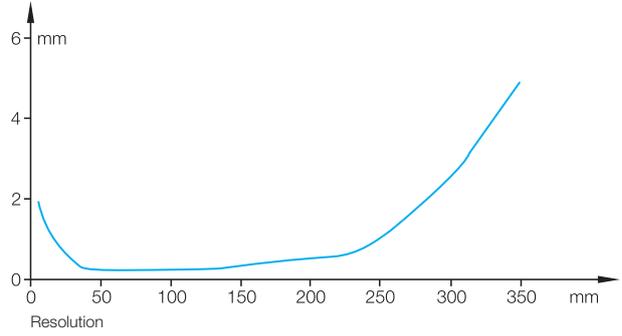
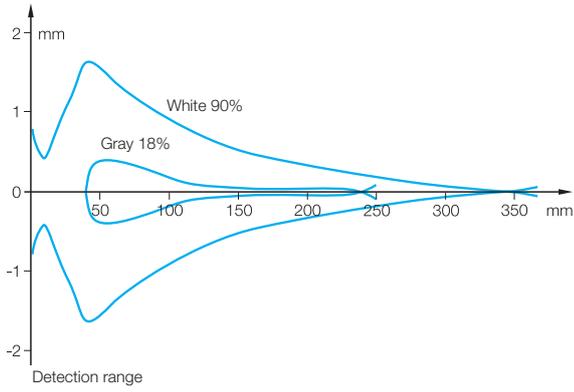
Diffuse sensor BOS 18KF-..-1PD-...



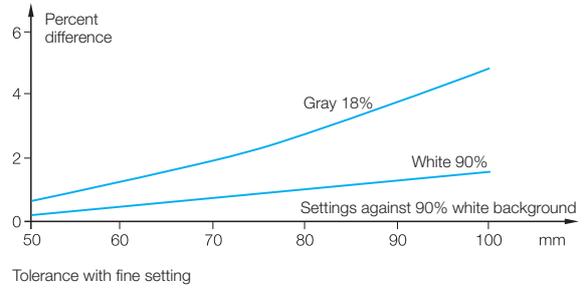
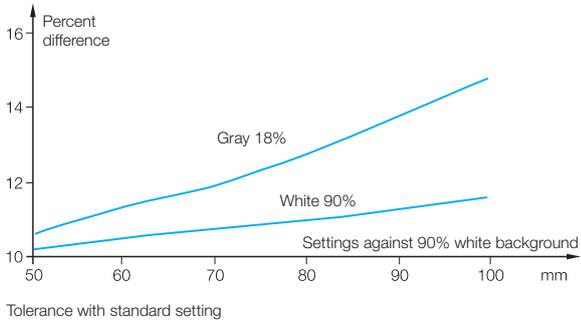
Diffuse sensor BOS 18KF-..-1PE-...



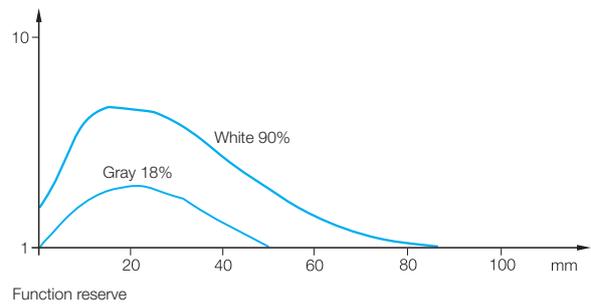
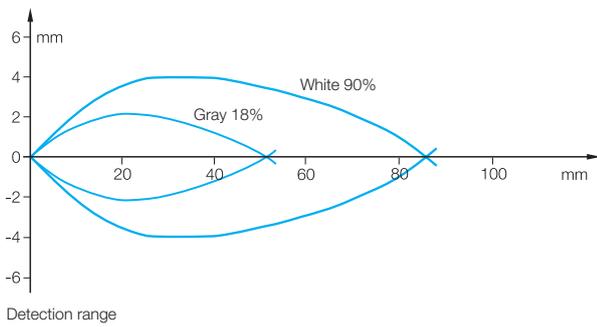
Diffuse sensor BOS 18KF--1LOC--...



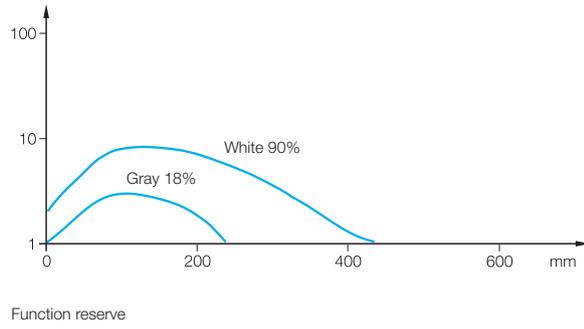
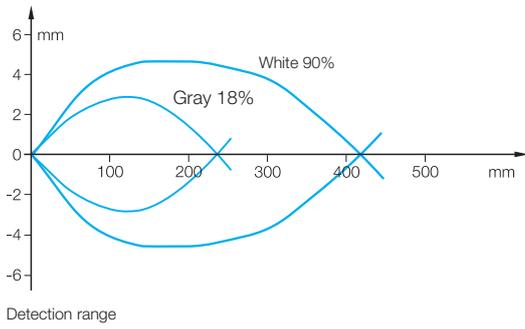
Diffuse sensor BOS 18KW--1HA--...



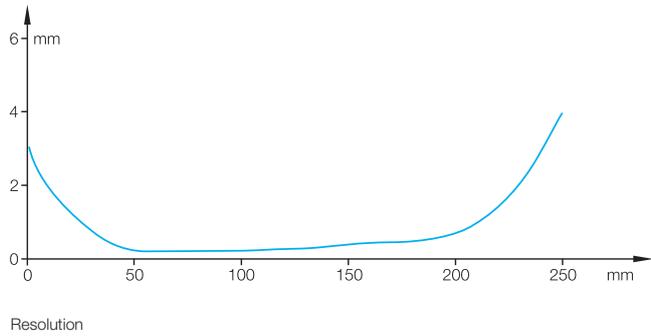
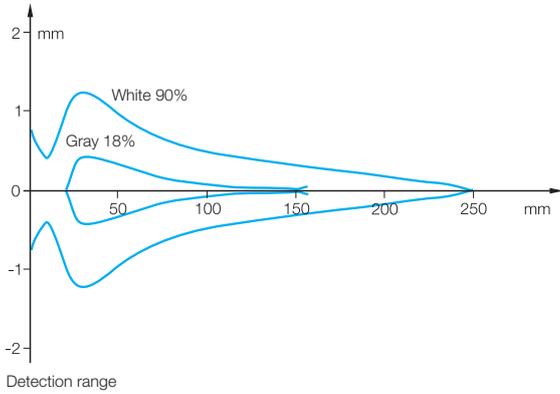
Diffuse sensor BOS 18KW--1XA--...



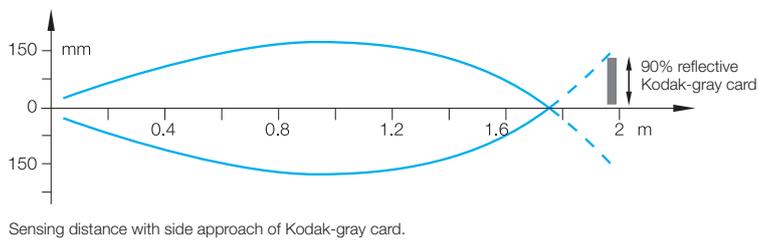
Diffuse sensor BOS 18KW--1PD--...



Diffuse sensor BOS 18KW--1LOB--...



Diffuse sensor BOS 30M--1PH--...



Sensors

RFID

Machine Vision and Optical Identification

Human Machine Interfaces

Systems

Safety

Industrial Networking Technology

Power Supplies

Connectivity

Accessories



PNP normally open			BOS01H2 BOS 08E-PS-KF20-00,2-S49	
PNP normally open, IO-Link 1.1	BOS0246 BOS 08E-PI-KH22-00,2-S49	BOS0247 BOS 08E-PI-KH22-S49		
PNP normally open, PNP normally closed				
Series	08E	08E	08E	
Dimension	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 8 x 40 mm	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	
Special optical feature	Background suppression	Background suppression	Background suppression	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	
Range	30 mm Adjustable	30 mm Adjustable	20 mm	
Connection	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, IO-Link, EAC	CE, cULus, IO-Link, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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	BOS01H6 BOS 08E-PS-KF20-S49	BOS01H0 BOS 08E-PS-KH22-00,2-S49	BOS01H4 BOS 08E-PS-KH22-S49		
				BOS01UM BOS 12M-PA-RF10-S4	BOS01ZT BOS 12M-PA-RF11-S4
	08E	08E	08E	12M	12M
	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 12 x 60 mm	Ø 12 x 60 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation
	Background suppression	Background suppression	Background suppression	Fixed focus, Fixed background suppression	Fixed background suppression
	Divergent	Divergent	Divergent	Focus, typical at 25 mm	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 1.5 mm at 25 mm	Ø 4 mm at 50 mm
	20 mm	7...30 mm	7...30 mm	1...25 mm	0...50 mm
	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Stainless steel	Stainless steel	Stainless steel	Brass	Brass
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC	CE, cULus, EAC	CE, cULus, EAC
	—	—	—	—	—
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PNP normally open			BOS002H BOS 18M-PS-LH22-S4	
PNP normally open, PNP normally closed	BOS01ZU BOS 12M-PA-RH12-S4	BOS01C5 BOS 18M-PA-LH23-S4		
Series	12M	18M	18M	
Dimension	Ø 12 x 60 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	
Special optical feature	Background suppression	Background suppression	Background suppression	
Beam characteristic	Divergent	Focus, typical at 100 mm	Focus, typical at 100 mm	
Light type	LED, red light	Laser red light	Laser red light	
Light spot size	Ø 6 mm at 100 mm	0.05 x 0.1 mm at focal point	0.05 x 0.1 mm at focal point	
Range	25...100 mm	30...150 mm	30...150 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Brass	Brass	Brass	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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	BOS002K BOS 18M-PSV-LH22-S4	BOS010J BOS 18MR-PS-1HA-E5-C-S4			
			BOS0081 BOS 18MR-PA-1HA-S4-C	BOS014W BOS 18M-PA-RH22-S4	BOS01J4 BOS 18M-PA-RH23-S4
	18M	18MR	18MR	18M	18M
	Ø 18 x 75 mm	Ø 18 x 18 mm	20 x 82 x 28 mm	Ø 18 x 75 mm	Ø 18 x 75 mm
	Error output PNP	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation
	Background suppression	Background suppression	Background suppression	Background suppression	Background suppression
	Focus, typical at 100 mm	Divergent	Divergent	Divergent	Divergent
	Laser red light	LED, red light	LED, red light	LED, red light	LED, red light
	0.05 x 0.1 mm at focal point	—	8 x 10 mm at 100 mm	27 x 27 mm at 300 mm	10 x 10 mm at 150 mm
	30...150 mm	10...120 mm	40...120 mm	30...300 mm	30...150 mm
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Brass	Brass	Brass	Brass	Brass
	PMMA	Glass	Glass	Glass	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC	CE, EAC	CE, cULus, EAC	cULus, CE, EAC	CE, cULus, EAC
	—	—	—	—	—
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2 × PNP normally open/normally closed		BOS00LH BOS 18KW-PA-1HA-S4-C	BOS00JK BOS 18KF-PA-1GA-S4-C	
PNP normally open	BOS0016 BOS 18E-PS-1N2M-S4-D			
Series	18E	18KW	18KF	
Dimension	Ø 18 x 72 mm	Ø 18 x 14 mm	Ø 18 x 96 mm	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	
Special optical feature	Fixed background suppression	Background suppression	Background suppression, Foreground suppression	
Beam characteristic	Focus, typical at 16 mm	—	—	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 5 mm at 20 mm	Ø 10 mm at 100 mm	Ø 8 mm at 100 mm	
Range	0...40 mm	50...100 mm	40...110 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Stainless steel (1.4571)	PBT	PBT	
Material sensing surface	Glass	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE	CE, cULus	CE, cULus	
Trademark	—	Global	Global	
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BOS00JW BOS 18KF-PA-1N1R-S4-C	BOS00JM BOS 18KF-PA-1HA-S4-C				
			BOS0163 BOS Q08M-PS-KF20-00,2-S49	BOS0160 BOS Q08M-PS-KF20-S49	BOS021C BOS R020K-PS-RF10-00,2-S49
18KF	18KF		Q08M	Q08M	R020K
Ø 18 x 71.5 mm	Ø 18 x 96 mm		8 x 44 x 8 mm	8 x 59 x 8 mm	7.7 x 26.8 x 13.5 mm
—	—		—	—	—
Photoelectric sensor	Photoelectric sensor		Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Diffuse sensor, triangulation	Diffuse sensor, triangulation		Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, HGA fixed
Fixed background suppression	Background suppression		Fixed background suppression	Fixed background suppression	Background suppression
Focused	—		Divergent	Divergent	Focus, typical at 7.5 mm
LED, red light	LED, red light		LED, red light	LED, red light	LED, red light
Ø 20 mm at 100 mm	Ø 8 mm at 100 mm		Ø 3 mm at 50 mm	Ø 3 mm at 50 mm	Ø 2 mm at 8 mm
5...100 mm	50...100 mm		5...50 mm	5...50 mm	1...15 mm
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin		Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PVC
PBT	PBT		Zinc, die-cast	Zinc, die-cast	ABS
PMMA	PMMA		PMMA PC	PMMA PC	PMMA
10...30 VDC	10...30 VDC		10...30 VDC	10...30 VDC	10...30 VDC
CE, cULus	CE, cULus		CE, cULus, EAC	cULus, CE, EAC	CE, cULus
Global	Global		—	—	—
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PNP normally open	BOS020M BOS R020K-PS-RF11-00,2-S49	BOS020N BOS R020K-PS-RF11-00,2-S75	BOS020K BOS R020K-PS-RF11-02	
Series	R020K	R020K	R020K	
Dimension	7.7 x 26.8 x 13.5 mm	7.7 x 26.8 x 13.5 mm	7.7 x 26.8 x 13.5 mm	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, HGA fixed	Diffuse sensor, HGA fixed	Diffuse sensor, HGA fixed	
Special optical feature	Background suppression	Background suppression	Background suppression	
Beam characteristic	Focus, typical at 15 mm	Focus, typical at 15 mm	Focus, typical at 15 mm	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 3 mm at 15 mm	Ø 3 mm at 15 mm	Ø 3 mm at 15 mm	
Range	1...30 mm	1...30 mm	1...30 mm	
Connection	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PVC	Cable with connector, M8x1 connector, 4-pin, 0.20 m, PVC	Cable, 2.00 m, PVC	
Housing material	ABS	ABS	ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	CE, cULus	CE, cULus	
Trademark	—	—	—	
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BOS0217 BOS R020K-PS-RF12-00,2-S49	BOS0234 BOS R020K-PS-RH12-00,2-S75	BOS022C BOS R020K-PS-RH12-02	BOS021U BOS R01E-PS-KF20-00,2-S49	BOS021W BOS R01E-PS-KF20-02
R020K	R020K	R020K	R01E	R01E
7.7 x 26.8 x 13.5 mm	7.7 x 32.5 x 13.5 mm	7.7 x 32.5 x 13.5 mm	20 x 32 x 9 mm	20 x 32 x 9 mm
—	—	—	—	—
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Diffuse sensor, HGA fixed	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation
Background suppression	Background suppression	Background suppression	Fixed background suppression	Fixed background suppression
Focus, typical at 15 mm	Focus, typical at 15 mm	Focus, typical at 15 mm	Divergent	Divergent
LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
Ø 4.5 mm at 40 mm	Ø 4.4 mm at 80 mm	Ø 4.4 mm at 80 mm	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit
1...60 mm	1...150 mm	1...150 mm	100 mm	100 mm
Cable with connector, M8x1 connector, 3-pin, 0.20 m, PVC	Cable with connector, M8x1 connector, 4-pin, 0.20 m, PVC	Cable, 2.00 m, PVC	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR
ABS	ABS	ABS	Stainless steel (1.4404)	Stainless steel (1.4404)
PMMA	PMMA	PMMA	PA	PA
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
CE, cULus	CE, cULus	CE, cULus	cULus, CE, Ecolab, EAC	cULus, CE, Ecolab, EAC
—	—	—	—	—
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PNP normally open	BOS022M BOS R01E-PS-KF21-00,2-S49	BOS022N BOS R01E-PS-KF21-02		
PNP normally open, IO-Link 1.1			BOS0265 BOS R01E-UI-KH22-00,2-S49	
PNP normally open/normally closed				
NPN normally open				
Series	R01E	R01E	R01E	
Dimension	20 x 32 x 9 mm	20 x 32 x 9 mm	20 x 32 x 9 mm	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	
Special optical feature	Fixed background suppression	Fixed background suppression	Background suppression	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	
Range	50 mm	50 mm	1...100 mm	
Connection	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	
Housing material	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)	
Material sensing surface	PA	PA	PA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, Ecolab, EAC	cULus, CE, Ecolab, EAC	cULus, CE, Ecolab, EAC, IO-Link	
Trademark	—	—	—	
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			BOS015U BOS 5K-PS-RH12-S49	BOS012A BOS 5K-PS-RH12-S75	
	BOS01JK BOS 5K-PU-LH12-S75				BOS01LE BOS 6K-PU-LH10-S75
		BOS011E BOS 5K-NS-RH12-02			
	5K	5K	5K	5K	6K
	10.8 x 43.5 x 19.5 mm	10.8 x 32.7 x 19.5 mm	10.8 x 43.2 x 19.5 mm	10.8 x 43.2 x 19.5 mm	12 x 41.5 x 21.6 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation
	Background suppression	Background suppression	Background suppression	Background suppression	Background suppression
	Focus, typical at 260 mm	Focus, typical at 60 mm	Focus, typical at 60 mm	Focus, typical at 60 mm	Focused
	Laser red light	LED, red light	LED, red light	LED, red light	Laser red light
	0.2 x 0.3 mm at focal point	Ø 5 mm at 60 mm	Ø 5 mm at 60 mm	Ø 5 mm at 60 mm	Ø 1.2 mm at 120 mm
	20...300 mm	20...200 mm	20...200 mm	20...200 mm	4...120 mm
	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PVC	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin
	PC PBT	PC PBT	PC PBT	PC PBT	ABS
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, CDRH	cULus, CE	cULus, CE	cULus, CE	CE, cULus, EAC
	Global	Global	Global	Global	—
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2 × PNP/NPN/push-pull, normally open/normally closed, IO-Link 1.1				
PNP normally open, PNP normally closed				
PNP normally open/normally closed	BOS01KW BOS 6K-PU-RH10-S49	BOS01KY BOS 6K-PU-RH10-S75	BOS01L3 BOS 6K-PU-RH11-S75	
Series	6K	6K	6K	
Dimension	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	
Special optical feature	Background suppression	Background suppression	Background suppression	
Beam characteristic	Focus, typical at 50 mm	Focus, typical at 50 mm	Focus, typical at 60 mm	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	5 x 5 mm at focal point	5 x 5 mm at focal point	8 x 8 mm at focal point	
Range	1...200 mm	1...200 mm	3...400 mm	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	
Housing material	ABS	ABS	ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, Ecolab, EAC	cULus, CE, EAC	cULus, CE, EAC	
Trademark	—	—	—	
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		BOS026K BOS 21M-UUI-LH31-S4			
	BOS0179 BOS 21M-PA-LH23-S4		BOS01Z8 BOS 21M-PA-RH22-S4		BOS01FR BOS 23K-PA-LH10-S4
				BOS0036 BOS 21M-PUS-RV13-S4	BOS017C BOS 23K-PU-LH10-S4
	21M	21M	21M	21M	23K
	15 x 51 x 42.5 mm	15 x 51 x 42.5 mm	15 x 51 x 42.5 mm	15 x 50 x 42.5 mm	23 x 51 x 52.4 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation
	Background suppression	Background suppression, CCD technology	Background suppression	Background suppression, Foreground suppression	Background suppression
	Focus, typical at 400 mm	Focus, typical at 400 mm	Focus, typical at 200 mm	—	Collimated
	Laser red light	Laser red light	LED, red light	LED, red light	Laser red light
	Ø 3 mm at 200 mm	0.5 x 1.5 mm at 200 mm	6 x 6 mm at 200 mm	—	2.2 x 2.2 mm at 800 mm
	1...250 mm	30...200 mm	1...400 mm	70...200 mm	5...800 mm
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum, glass, PC	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	PC ABS
	Glass	Glass, anti-glare	Glass	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	12...30 VDC
	CE, cULus, CDRH, EAC	CE, EAC, cULus	CE, cULus, EAC	CE, cULus, EAC	CE, Ecolab, cULus, EAC
	—	—	—	—	—
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PNP normally open				
PNP normally open, PNP normally closed			BOS01FL BOS 23K-PA-RH10-S4	
PNP normally open/normally closed	BOS017H BOS 23K-PU-LH20-S4		BOS0178 BOS 23K-PU-RH10-S4	
Normally open/normally closed		BOS01UW BOS 23K-UU-LH11-S92		
Series	23K	23K	23K	
Dimension	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, triangulation	Light time-of-flight	Diffuse sensor, triangulation	
Special optical feature	Background suppression	Background suppression	Background suppression	
Beam characteristic	Collimated	Divergent	Focus, typical at 500 mm	
Light type	Laser red light	Laser red light	LED, red light	
Light spot size	2.5 x 3.5 mm at 800 mm	Ø 7 mm at 5 m	15 x 15 mm at focal point	
Range	5...800 mm	—	3...800 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector	Connector, M12x1 connector, 4-pin	
Housing material	PC ABS	PC ABS	PC ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	12...30 VDC	18...30 VDC	10...30 VDC	
Approval/Conformity	Ecolab, CE, cULus, EAC	CE, Ecolab, cULus, EAC	CE, Ecolab, cULus, EAC	
Trademark	—	—	—	
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					BOS018N BOS 50K-PS-RH12-S4
BOS008A BOS 26K-PA-1IE-S4-C	BOS008E BOS 26K-PA-1LHB-S4-C	BOS008F BOS 26K-PA-1LHC-S4-C	BOS0089 BOS 26K-PA-1HC-S4-C	BOS018P BOS 50K-PA-RH12-S4	
26K	26K	26K	26K	26K	50K
17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	28.5 x 80.5 x 62 mm
—	—	—	—	—	—
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation
Background suppression	Background suppression	Background suppression	Background suppression	Background suppression	Background suppression
—	Focus, typical at 80 mm	Collimated	—	—	Divergent
Infrared	Laser red light	Laser red light	LED, red light	LED, red light	LED, red light
20 x 20 mm at 400 mm	Ø 0.1 mm at focal point	3 x 1 mm at 300 mm	Ø 8 mm at 200 mm	Ø 8 mm at 200 mm	60 x 60 mm at Sr
150...600 mm	30...150 mm	50...300 mm	30...300 mm	30...300 mm	200...2000 mm
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
ABS	ABS	ABS	ABS	ABS	PC ABS
PMMA	PMMA	PMMA	PMMA	PMMA	Glass
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
cULus, CE	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC	CE, cULus, EAC
—	—	—	—	—	—
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Sensors

RFID

Machine Vision and Optical Identification

Human Machine Interfaces

Systems

Safety

Industrial Networking

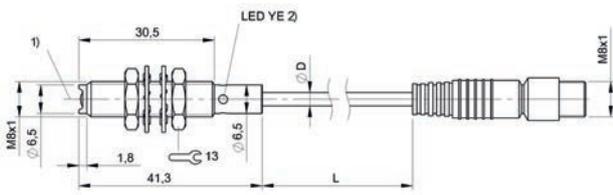
Power Supply

Connectivity

Accessories

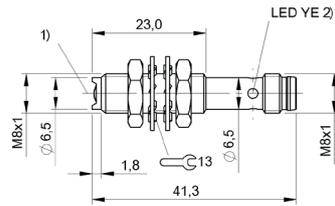


2 × PNP normally open		BOS019J BOS 63M-PS-LH13-S4		
PNP normally open	BOS0156 BOS 50K-PSV-RH12-S4			
Relay normally open/normally closed			BOS01K1 BOS 64K-AA-IH12-TG	
Series	50K	63M	64K	
Dimension	28.5 x 80.5 x 62 mm	35 x 70 x 90 mm	25 x 69.7 x 100.4 mm	
Supplementary output	Error output PNP	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, triangulation	Light time-of-flight	Diffuse sensor, triangulation	
Special optical feature	Background suppression	Background suppression	Background suppression	
Beam characteristic	Divergent	Collimated	Divergent	
Light type	LED, red light	Laser red light	Infrared	
Light spot size	60 x 60 mm at Sr	Ø 10 mm at 6 m	—	
Range	200...2000 mm	200...6000 mm	200...2000 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Screw terminals	
Housing material	PC ABS	Aluminum, die-cast	PBT, GF30	
Material sensing surface	Glass	Glass	PC	
Operating voltage U_b	10...30 VDC	15...30 VDC	24...60 VDC/24...240 VAC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	cULus, CE	
Trademark	—	—	—	
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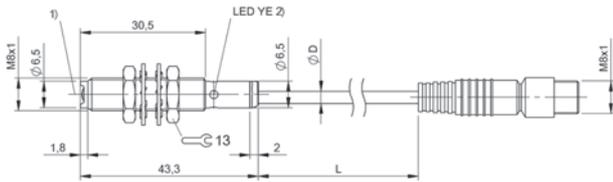
1) Optical axis, 2) Output function

BOS0246



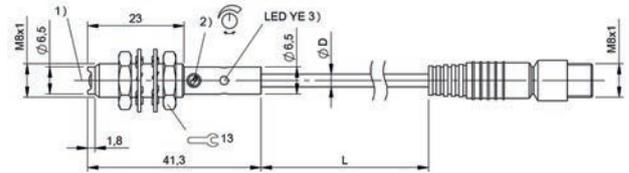
1) Optical axis, 2) Output function

BOS0247, BOS01H6



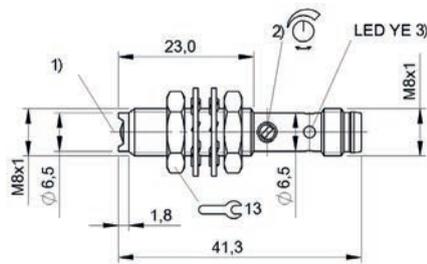
1) Optical axis, 2) Output function

BOS01H2



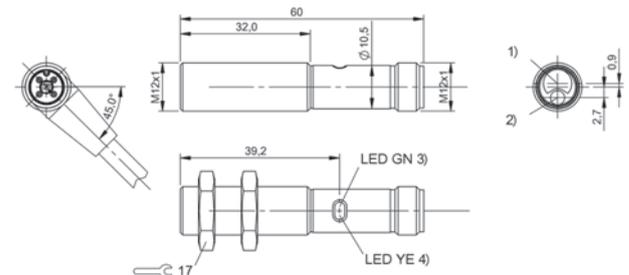
1) Optical axis, 2) Sn, 3) Output function

BOS01H0



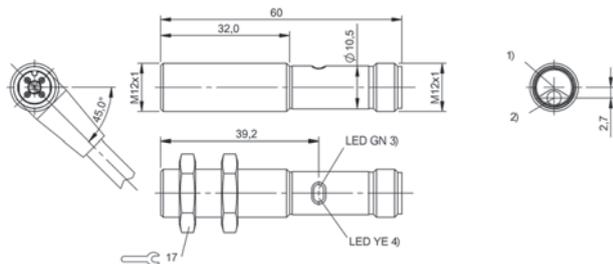
1) Optical axis, 2) Sn, 3) Output function

BOS01H4



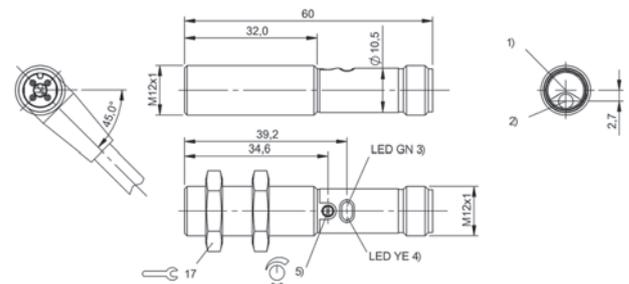
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage/Error, 4) Light reception/limit area

BOS01UM



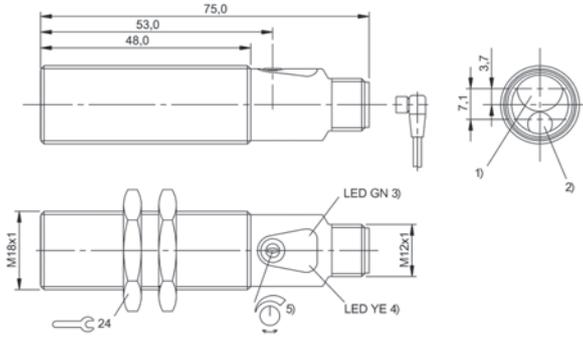
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area

BOS01ZT



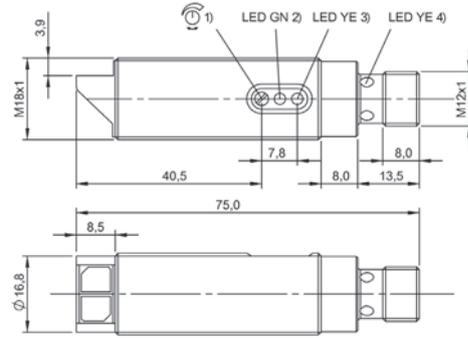
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01ZU



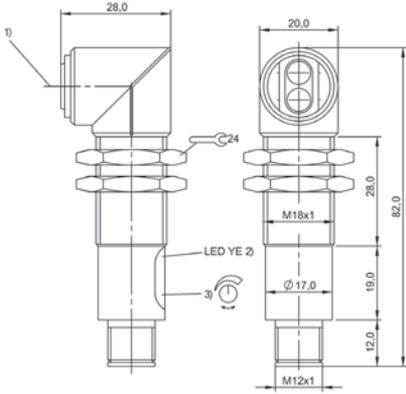
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Output function/Error, 5) Sn

BOS01C5, BOS002H, BOS002K



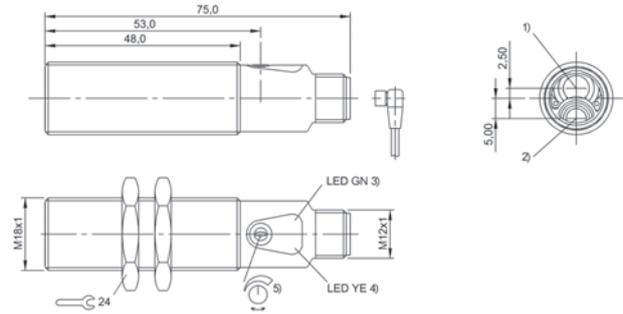
1) Sn, 2) Stability, 3) Output function

BOS010J



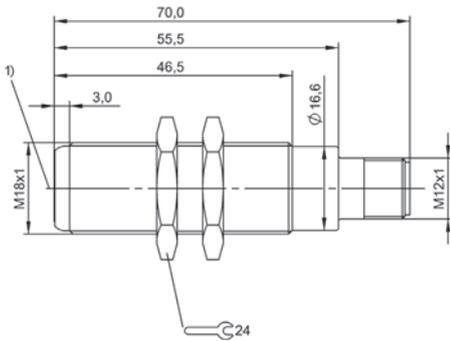
1) Optical axis, 2) Sn, 3) Output function

BOS0081



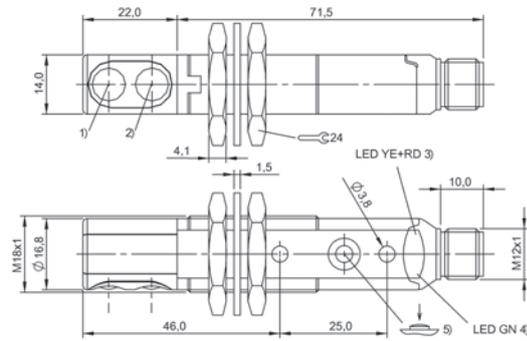
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Output function/Error, 5) Sn

BOS014W, BOS01J4



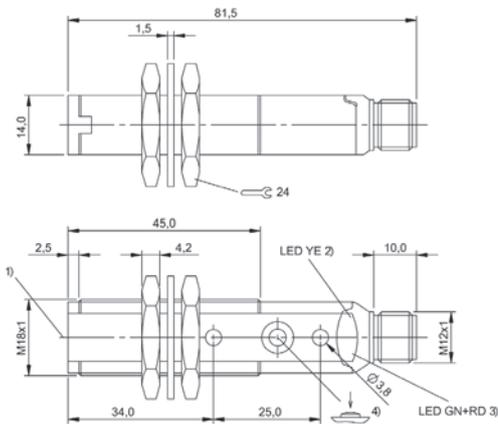
1) Optical axis

BOS0016



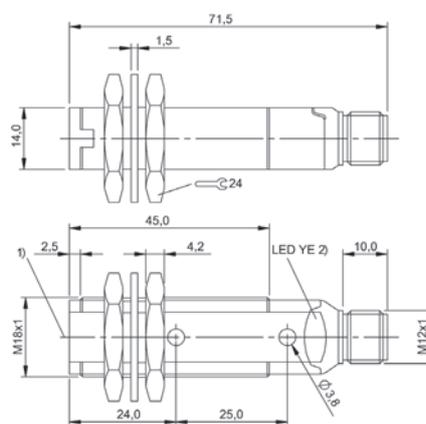
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function, 4) stability/error, 5) Sn

BOS00LH



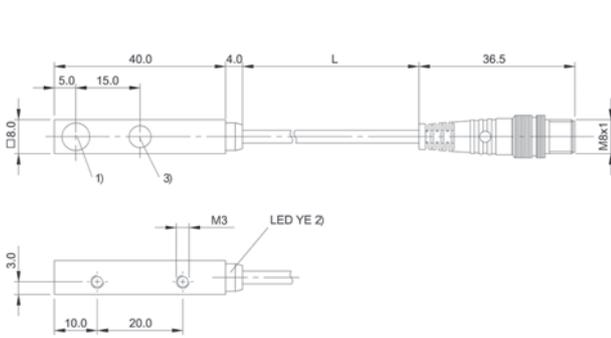
1) Optical axis, 2) Output function, 3) stability/error, 4) Sn

BOS00JK, BOS00JM



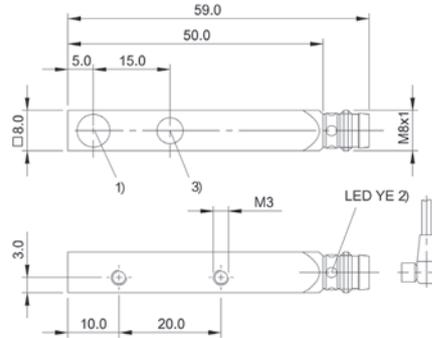
1) Optical axis, 2) Output function

BOS00JW



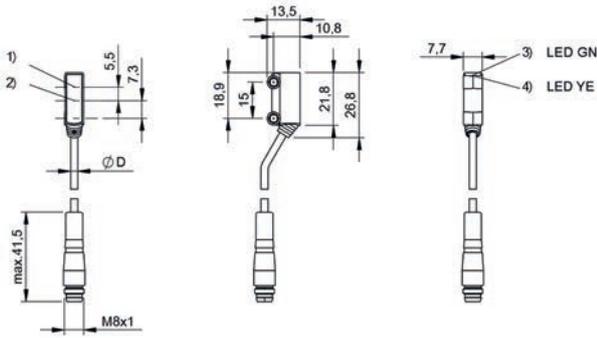
1) Emitter, 2) Light reception/limit area, 3) Receiver

BOS0163



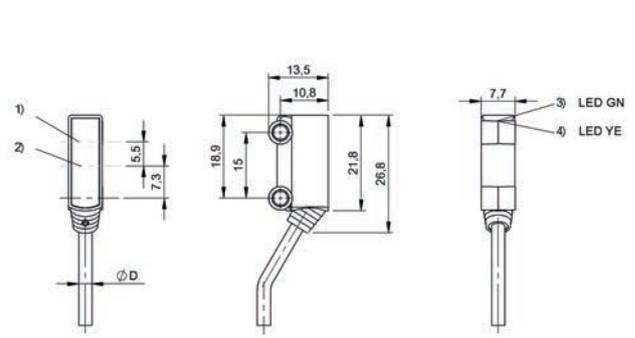
1) Emitter, 2) Light reception/limit area, 3) Receiver

BOS0160



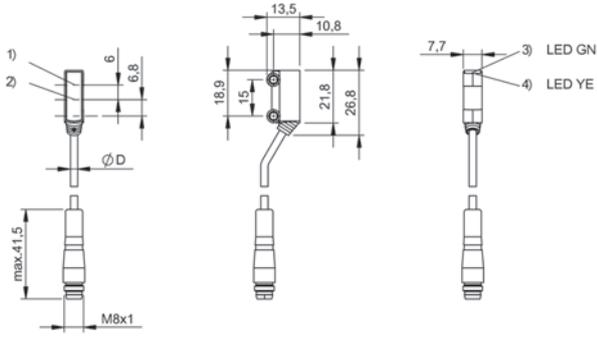
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS021C, BOS020M, BOS020N



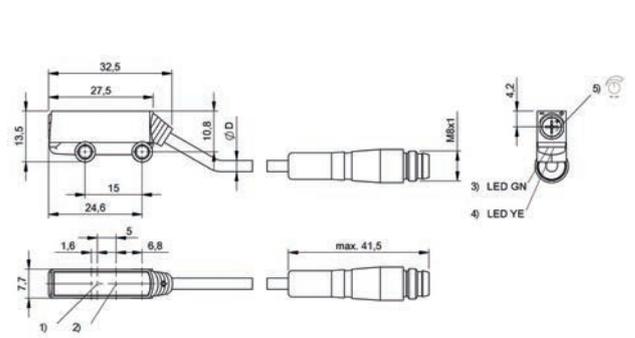
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS020K



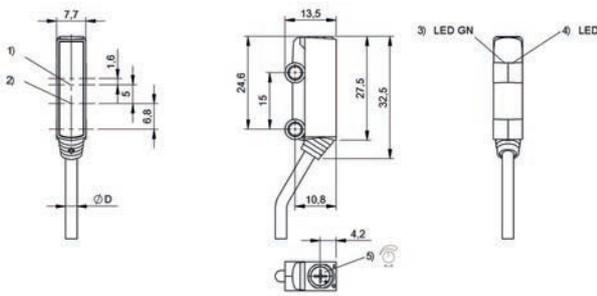
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS0217



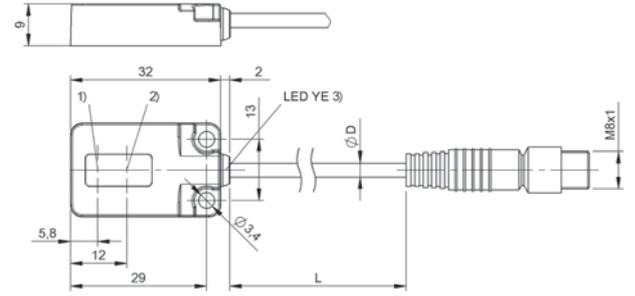
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception, 5) Sn

BOS0234



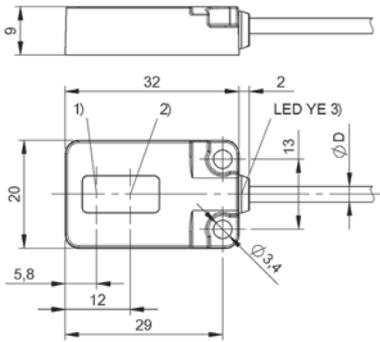
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception, 5) Sn

BOS022C



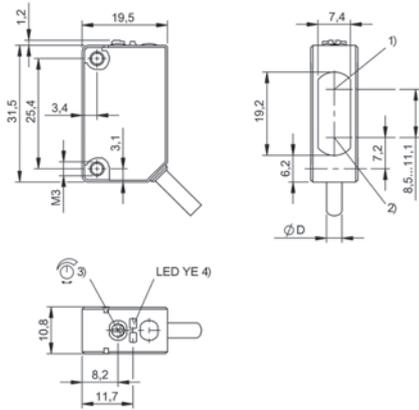
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021U, BOS022M, BOS0265



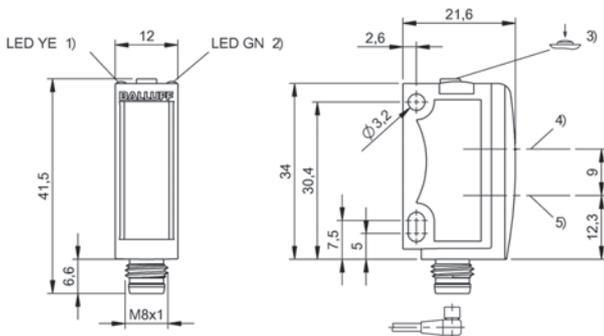
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021W, BOS022N



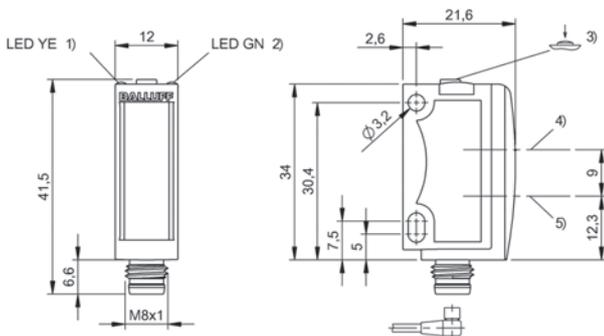
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function

BOS011E



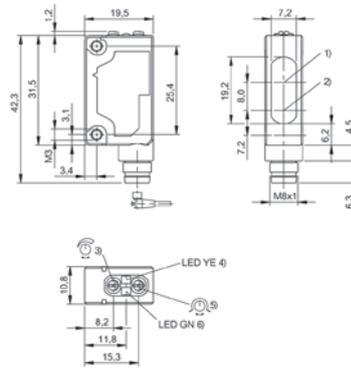
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01LE



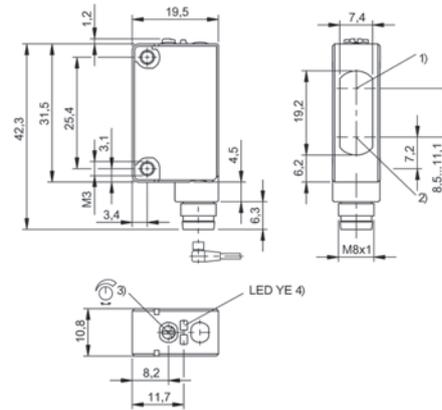
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01L3



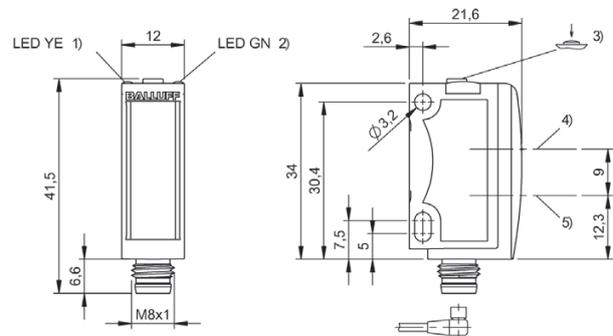
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) Light-on/dark-on, 6) stability

BOS01JK



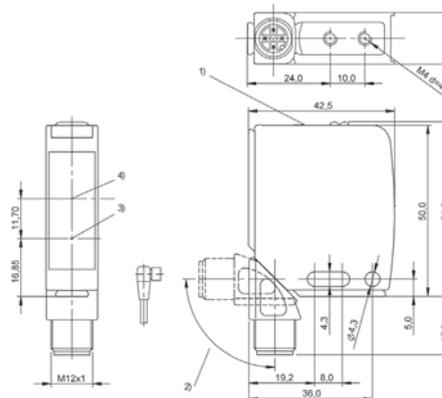
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function

BOS015U, BOS012A



1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01KW, BOS01KY

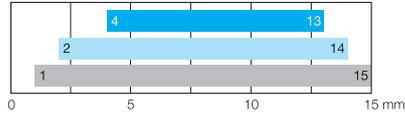
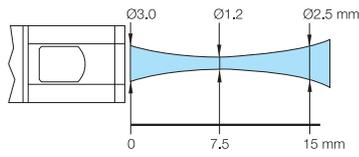


1) Display and control panel, 2) rotatable 270°, 3) Optical axis emitter, 4) Optical axis receiver

BOS01Z9, BOS01Z8

BOS 2K

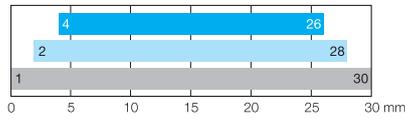
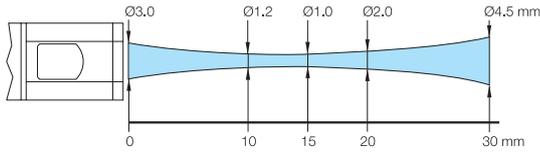
Light spot diameter
Diffuse sensor with background suppression, 15 mm



Diffuse sensors with background suppression 15 mm

- Sensing range on black, 6% remission
- Sensing range on gray, 18% remission
- Sensing range on white, 90% remission

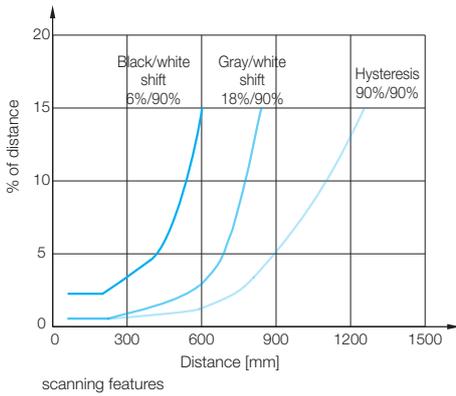
Light spot diameter
Diffuse sensor with background suppression, 30 mm



Diffuse sensors with background suppression 30 mm

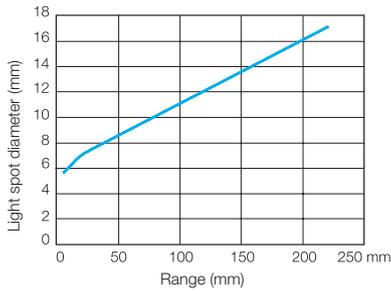
- Sensing range on black, 6% remission
- Sensing range on gray, 18% remission
- Sensing range on white, 90% remission

BOS01FL, BOS0178

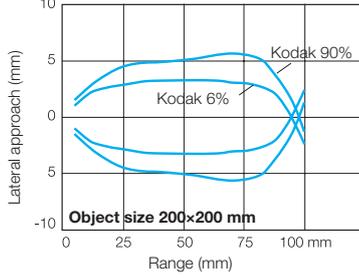


Diffuse sensor with background suppression BOS 5K-__-RH12-__

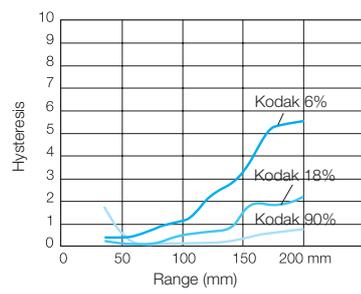
Light spot diameter



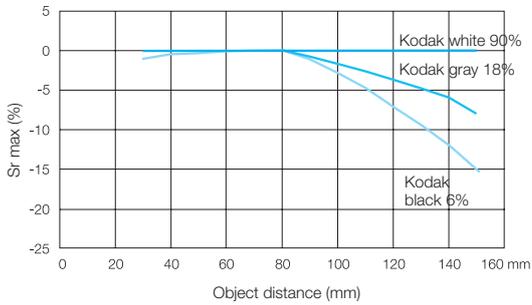
Characteristic response curve (background suppression 100 mm)



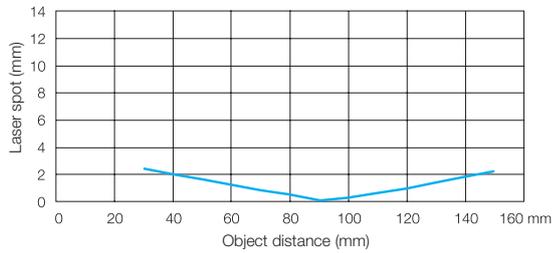
Range vs. hysteresis



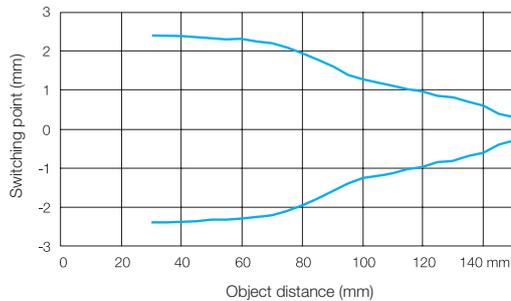
Diffuse sensor with background suppression BOS 18M-...LH
Gray value shift



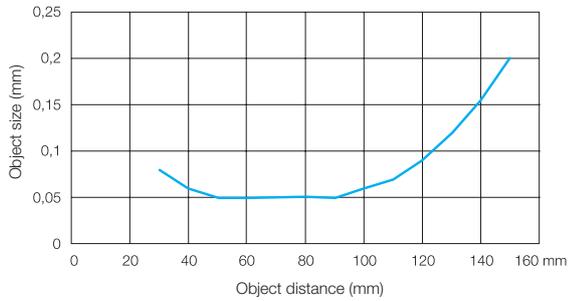
Diffuse sensor with background suppression BOS 18M-...LH
Light spot diameter at distance



Diffuse sensor with background suppression BOS 18M-...LH
Turn-on point for lateral approach



Diffuse sensor with background suppression BOS 18M-...LH
Smallest detectable part





PNP normally open	BOS01RK BOS 08E-PS-PR20-S49	BOS01RL BOS 08E-PS-PR20-00,2-S49	BOS01TT BOS 12M-PS-PR10-S4	
PNP normally closed	BOS01RM BOS 08E-P0-PR20-S49			
PNP normally open, PNP normally closed				
Series	08E	08E	12M	
Dimension	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 12 x 60 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 160 mm at 3 m	
Range	0...1 m	0...1 m	0...3 m	
Connection	Connector, M8x1 connector, 3-pin	Cable with connector, 0.20 m, PUR	Connector, M12x1 connector, 4-pin	
Housing material	Stainless steel	Stainless steel	Brass	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	—	Global	
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			BOS01HK BOS 18M-PS-IR23-S4		
	BOS01F0 BOS 18M-PA-IR20-S4	BOS01HR BOS 18M-PA-IR21-S4		BOS01NE BOS 18M-PA-LR20-S4	BOS01CE BOS 18M-PA-PR20-S4
	18M	18M	18M	18M	18M
	Ø 18 x 75 mm				
	—	—	—	—	—
	Photoelectric sensor				
	Retroreflective sensor				
	—	—	—	—	—
	Divergent	Divergent	Divergent	Collimated	Divergent
	LED infrared	LED infrared	LED infrared	Laser red light	LED, red light
	Ø 300 mm at 7 m	Ø 300 mm at 7 m	Ø 300 mm at 7 m	Ø 10 mm at 16 m	Ø 300 mm at 7 m
	0...10 m	0...7 m	0...6 m	0...16 m	0...7 m
	Connector, M12x1 connector, 4-pin				
	Brass	Brass	Brass	Brass	Brass
	Glass, anti-glare	Glass, anti-glare	Glass, anti-glare	Glass	Glass, anti-glare
	10...30 VDC				
	cULus, CE, EAC	CE, cULus, EAC	cULus, CE, EAC	cULus, CE, EAC	CE, cULus, EAC
	—	—	—	—	—
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Sensors

RFID

Machine Vision and Optical Identification

Human Machine Interfaces

Systems

Safety

Industrial Networking

Power Supply

Connectivity

Accessories



PNP normally open			BOS01F8 BOS 18M-PS-PR23-S4	
PNP normally open, PNP normally closed	BOS01FJ BOS 18M-PA-PR20-S4S			
PNP normally open/normally closed/IO-Link 1.1		BOS01UE BOS 18M-PI-PR30-S4		
Series	18M	18M	18M	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 300 mm at 7 m	Ø 300 mm at 7 m	Ø 300 mm at 7 m	
Range	0...7 m	0...5 m	0...4 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Brass	Brass	Brass	
Material sensing surface	Glass, anti-glare	Glass	Glass, anti-glare	
Operating voltage U_b	10...30 VDC	18...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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	BOS01KL BOS 18E-PA-PR20-S4	BOS023Y BOS 18E-PA-PR30-S4		BOS01KK BOS G18E-PA-PR20-S4	BOS0245 BOS G18E-PA-PR30-S4
			BOS023F BOS 18E-PI-PR30-S4		
	18E	18E	18E	G18E	G18E
	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor
	—	—	—	—	—
	Divergent	Divergent	Divergent	Divergent	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
	Ø 300 mm at 7 m	Ø 300 mm at 7 m	Ø 300 mm at 7 m	Ø 300 mm at 7 m	Ø 300 mm at 7 m
	5 m	5 m	0...5 m	5 m	5 m
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4571)	Stainless steel (1.4404)	Stainless steel (1.4404)
	Glass	PMMA	Glass	Glass	PMMA
	10...30 VDC	10...30 VDC	18...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, Ecolab, FDA compliant, EAC	Ecolab, cULus, CE, EAC	cULus, CE, EAC	FDA compliant, Ecolab, cULus, CE, EAC	Ecolab, cULus, CE, EAC
	—	—	—	—	—
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PNP normally open, PNP normally closed	BOS00LM BOS 18KW-PA-1LQH-S4-C	BOS00LW BOS 18KW-PA-1QC-S4-C	BOS00LZ BOS 18KW-PA-1TB-S4-C	
Series	18KW	18KW	18KW	
Dimension	Ø 18 x 14 mm	Ø 18 x 14 mm	Ø 18 x 14 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	—	—	Transparency detection	
Beam characteristic	—	—	—	
Light type	Laser red light	LED, red light	LED, red light	
Light spot size	—	—	—	
Range	0...9 m	0...3 m	0...1.7 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	PBT	PBT	PBT	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	CE, cULus	CE, cULus	
Trademark	Global	Global	Global	
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	BOS00K5 BOS 18KF-PA-1RE-S4-C	BOS00JT BOS 18KF-PA-1LQP-S4-C	BOS00K3 BOS 18KF-PA-1QD-S4-C	BOS00K7 BOS 18KF-PA-1TB-S4-C	
	18KF	18KF	18KF	18KF	
	Ø 18 x 71.5 mm	Ø 18 x 81.5 mm	Ø 18 x 81.5 mm	Ø 18 x 81.5 mm	
	—	—	—	—	
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
	—	—	—	Transparency detection	
	—	—	—	—	
	Infrared	Laser red light	LED, red light	LED, red light	
	—	—	—	—	
	0...5 m	0...16 m	0...4.5 m	0...1.7 m	
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector	Connector, M12x1 connector, 4-pin	
	PBT	PBT	PBT	PBT	
	PMMA	PMMA	PMMA	PMMA	
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
	CE, cULus, EAC	CE, cULus	CE, cULus	CE, cULus	
	Global	Global	Global	Global	
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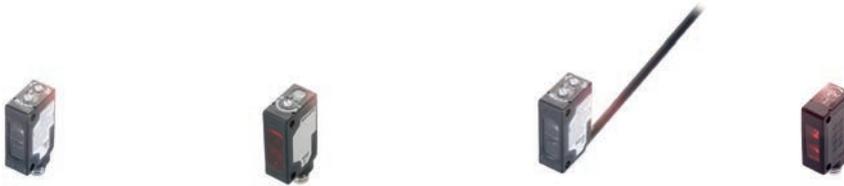
PNP normally open	BOS01MU BOS Q08M-PS-LR20-00,2-S49	BOS01MP BOS Q08M-PS-LR20-S49	BOS01T9 BOS Q08M-PS-PR20-00,2-S49	
PNP normally closed	BOS01MW BOS Q08M-PO-LR20-00,2-S49			
Series	Q08M	Q08M	Q08M	
Dimension	8 x 59 x 8 mm	8 x 59 x 8 mm	8 x 44 x 8 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Laser red light	Laser red light	LED, red light	
Light spot size	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	
Range	0...1 m	0...1 m	0...1 m	
Connection	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	Cable with connector, 0.20 m, PUR	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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	BOS01T8 BOS Q08M-PS-PR20-S49	BOS020T BOS R020K-PS-PR11-00,2-S49	BOS020U BOS R020K-PS-PR11-00,2-S75	BOS020R BOS R020K-PS-PR11-02	
	Q08M	R020K	R020K	R020K	
	8 x 59 x 8 mm	7.7 x 26.8 x 13.5 mm	7.7 x 26.8 x 13.5 mm	7.7 x 26.8 x 13.5 mm	
	—	—	—	—	
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
	—	—	—	—	
	Divergent	Divergent	Divergent	Divergent	
	LED, red light	LED, red light	LED, red light	LED, red light	
	Ø 3.0 mm Light exit	Ø 10 mm at 100 mm	Ø 10 mm at 100 mm	Ø 11 mm at 250 mm	
	0...1 m	0...3 m	0...3 m	0...3 m	
	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PVC	Cable with connector, M8x1 connector, 4-pin, 0.20 m, PVC	Cable, 2.00 m, PVC	
	Zinc, die-cast	ABS	ABS	ABS	
	PMMA	PMMA	PMMA	PMMA	
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
	cULus, CE, EAC	CE, cULus	CE, cULus	CE, cULus	
	—	—	—	—	
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PNP normally open	BOS021L BOS R01E-PS-KR20-00,2-S49	BOS021M BOS R01E-PS-KR20-02		
PNP normally closed				
PNP normally open/normally closed			BOS01JT BOS 5K-PU-LR10-02	
Series	R01E	R01E	5K	
Dimension	20 x 32 x 9 mm	20 x 32 x 9 mm	10.8 x 32.7 x 19.5 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	Laser red light	
Light spot size	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 5 mm at 3 m	
Range	1 m	1 m	0...10 m	
Connection	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR	Cable, 2.00 m, PVC	
Housing material	Stainless steel (1.4404)	Stainless steel (1.4404)	PC PBT	
Material sensing surface	PA	PA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, Ecolab, EAC	CE, cULus, Ecolab, EAC	CE, cULus, CDRH, EAC	
Trademark	—	—	Global	
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	BOS012E BOS 5K-PS-RR10-S75	BOS012C BOS 5K-PS-RR10-02	BOS015E BOS 5K-PS-RR10-S49	
	BOS0121 BOS 5K-PO-RR10-S75			
BOS01JW BOS 5K-PU-LR10-S75				
5K	5K	5K	5K	
10.8 x 43.5 x 19.5 mm	10.8 x 43.5 x 19.5 mm	10.8 x 32.7 x 19.5 mm	10.8 x 43.5 x 19.5 mm	
—	—	—	—	
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
—	—	—	—	
Divergent	Divergent	Divergent	Divergent	
Laser red light	LED, red light	LED, red light	LED, red light	
Ø 5 mm at 3 m	Ø 160 mm at 2 m	Ø 160 mm at 2 m	Ø 160 mm at 2 m	
0...10 m	0...4 m	0...4 m	0...4 m	
Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PVC	Connector, M8x1 connector, 3-pin	
PC PBT	PC PBT	PC PBT	PC PBT	
PMMA	PMMA	PMMA	PMMA	
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
cULus, CE, CDRH, EAC	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC	
Global	Global	Global	Global	
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PNP normally open, PNP normally closed				
PNP normally open/normally closed	BOS01M4 BOS 6K-PU-LK10-S75	BOS01MH BOS 6K-PU-PR10-S49	BOS01MJ BOS 6K-PU-PR10-S75	
Series	6K	6K	6K	
Dimension	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	
Input function	Same function as button, Key disable on/off	—	Key disable on/off, Same function as button	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	Coaxial optics	—	—	
Beam characteristic	Collimated	Divergent	Divergent	
Light type	Laser red light	LED, red light	LED, red light	
Light spot size	Ø 2 mm at 2.5 m	600 x 600 mm at 7 m	600 x 600 mm at 7 m	
Range	0...4 m	0...6 m	0...6 m	
Connection	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 4-pin	
Housing material	ABS	ABS	ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	cULus, CE, EAC	
Trademark	—	—	—	
Productview	Page 422	Page 423	Page 423	



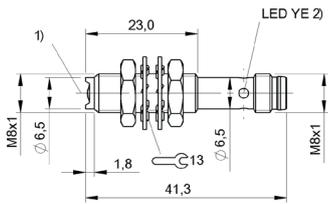
	BOS01L8 BOS 6K-PU-PT10-S75	BOS00TL BOS 21M-PA-LR10-S4	BOS00TN BOS 21M-PA-PK10-S4	BOS00TR BOS 21M-PA-PR10-S4	BOS00TU BOS 21M-PA-PT10-S4
	BOS01L8 BOS 6K-PU-PT10-S75				
	6K	21M	21M	21M	21M
	12 x 41.5 x 21.6 mm	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm
	Key disable on/off, Same function as button	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor
	Coaxial optics, Transparency detection	—	Coaxial optics	—	Coaxial optics, Transparency detection
	Divergent	Collimated	Divergent	Divergent	—
	LED, red light	Laser red light	LED, red light	LED, red light	LED, red light
	50 x 50 mm at 2 m	—	—	—	—
	0...2 m	0...20 m	0...4 m	0...8 m	0...2 m
	Connector, M8x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	ABS	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum
	PMMA	PMMA	Glass	PMMA	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC	CE, cULus	CE, cULus, EAC	CE, cULus, EAC	cULus, CE, EAC
	—	—	—	—	—
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PNP normally open, PNP normally closed	BOS01NC BOS 23K-PA-LK10-S4		BOS01FN BOS 23K-PA-RR10-S4	
PNP normally open/normally closed		BOS016U BOS 23K-PU-LR10-S4		
Relay normally open/normally closed				
Series	23K	23K	23K	
Dimension	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	
Input function	—	Key disable on/off, Same function as button	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Laser red light	Laser red light	LED, red light	
Light spot size	Ø 22 mm at 20 m	9 x 9 mm at 12 mm	300 x 300 mm at 12 m	
Range	0...20 m	0...14 m	0...14 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	PC ABS	PC ABS	PC ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	Ecolab, CE, cULus, EAC	Ecolab, CE, cULus, EAC	Ecolab, CE, cULus	
Trademark	—	—	—	
Productview	Page 423	Page 423	Page 423	

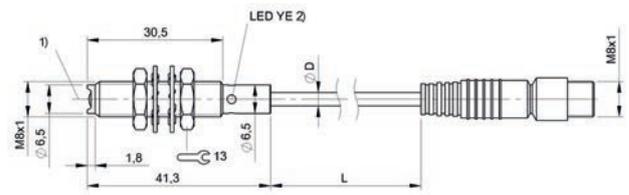


	BOS008L BOS 26K-PA-1LQP-S4-C	BOS008M BOS 26K-PA-1QE-S4-C	BOS01CR BOS 50K-PA-PR10-S4	
BOS016P BOS 23K-PU-RR10-S4				
				BOS01K3 BOS 64K-AA-PR10-TG
23K	26K	26K	50K	64K
23 x 51 x 52.4 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	28.5 x 80.5 x 62 mm	25 x 69.7 x 100.4 mm
Key disable on/off, Same function as button	—	—	—	—
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor
—	Coaxial optics	Coaxial optics	—	—
Divergent	Collimated	—	Divergent	Divergent
LED, red light	Laser red light	LED, red light	LED, red light	LED, red light
300 x 300 mm at 12 m	Ø 20 mm at 20 m	—	200 x 200 mm at 10 m	—
0...14 m	0...25 m	0...5.5 m	0...18 m	0...10 m
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Screw terminals
PC ABS	ABS	ABS	PC ABS	PBT, GF30
PMMA	PMMA	PMMA	Glass	PC
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	24...60 VDC/24...240 VAC
Ecolab, CE, cULus	cULus, CE, EAC	CE, cULus	CE, cULus, EAC	CE, cULus, EAC
—	—	—	—	—
Page 423	Page 424	Page 424	Page 424	Page 424



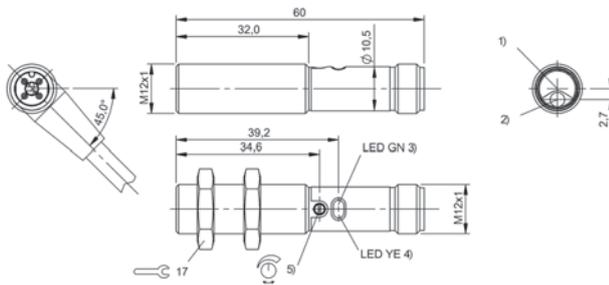
1) Optical axis, 2) Output function

BOS01RM, BOS01RK



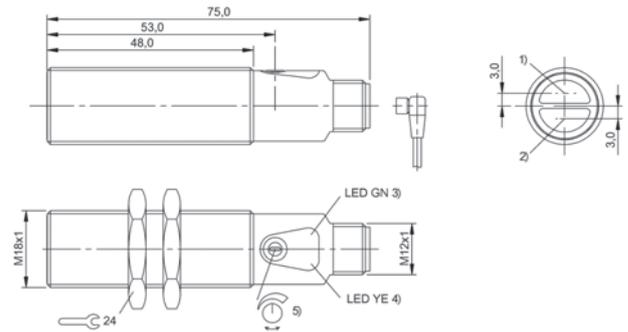
1) Optical axis, 2) Output function

BOS01RL



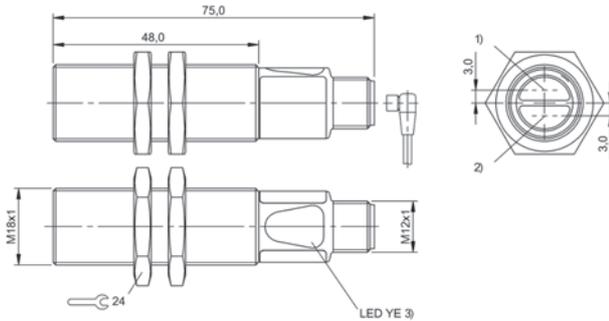
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01TT



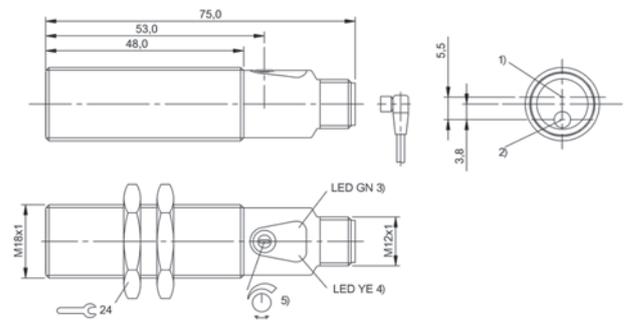
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01F0, BOS01HR, BOS01CE, BOS01FJ



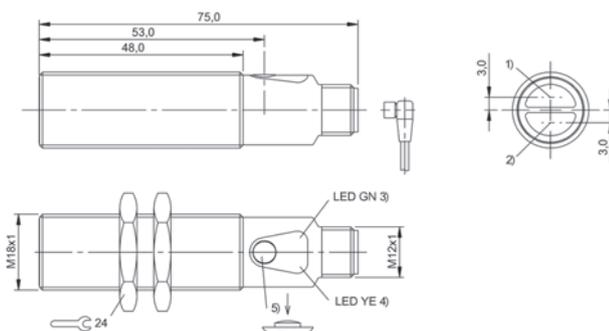
1) Optical axis receiver, 2) Optical axis emitter, 3) Light reception/limit area

BOS01HK, BOS01F8



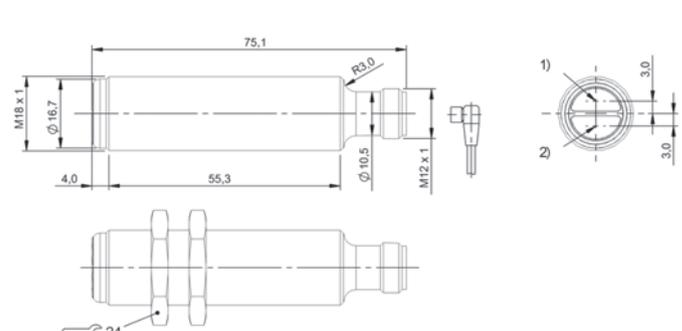
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage/Error, 4) Light reception/limit area, 5) Sn

BOS01NE



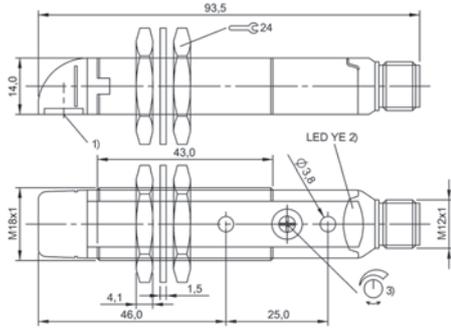
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Light reception/limit area, 5) Sn

BOS01UE



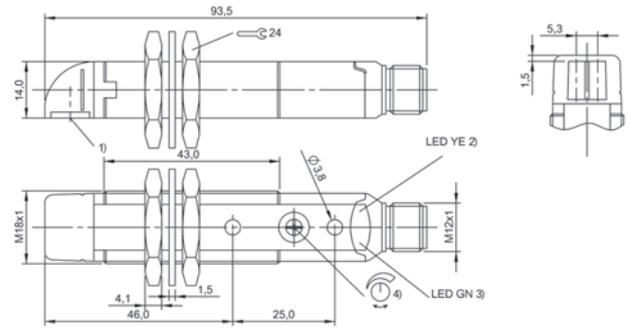
1) Optical axis receiver, 2) Optical axis emitter

BOS01KL, BOS023Y, BOS023F, BOS01KK, BOS0245



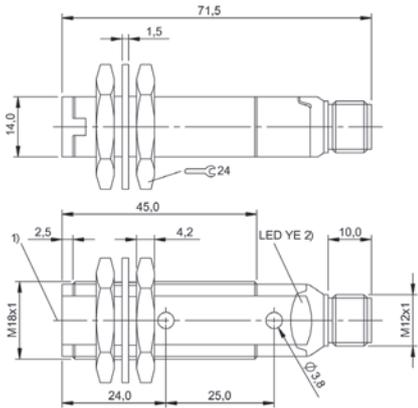
1) Optical axis, 2) Output function, 3) Sn

BOS00LM, BOS00LZ



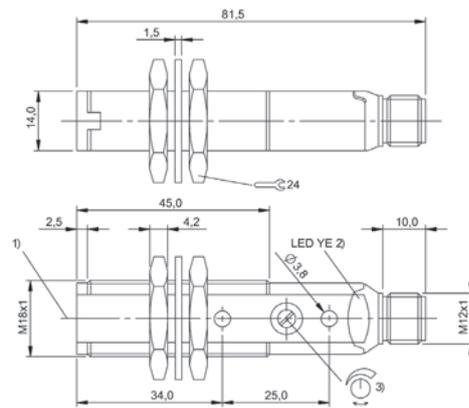
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00LW



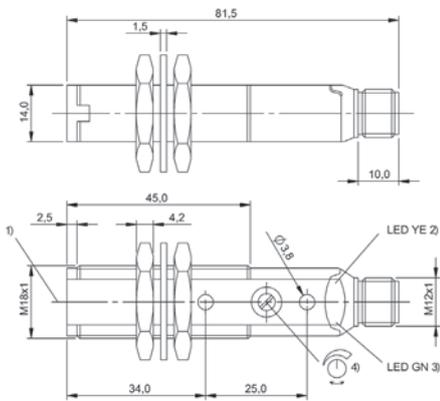
1) Optical axis, 2) Output function

BOS00K5



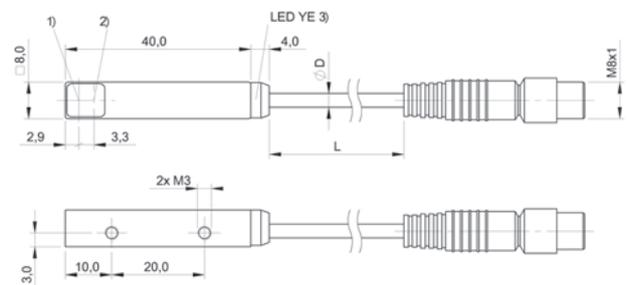
1) Optical axis, 2) Output function, 3) Sn

BOS00JT, BOS00K7



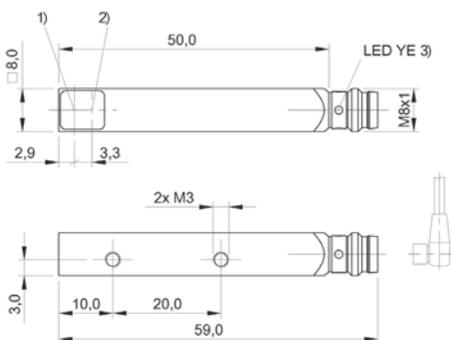
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00K3



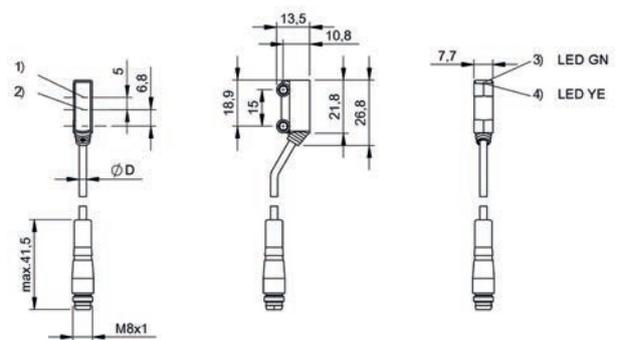
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01MW, BOS01MU, BOS01T9



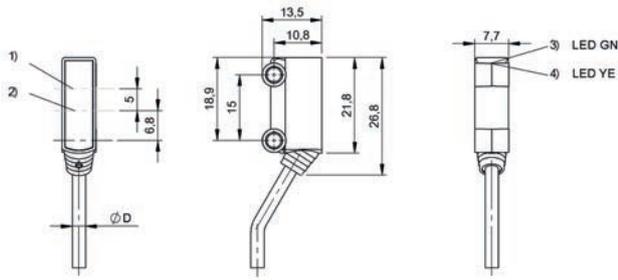
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01MP, BOS01T8



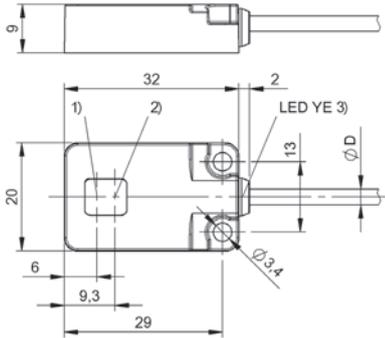
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS020T, BOS020U



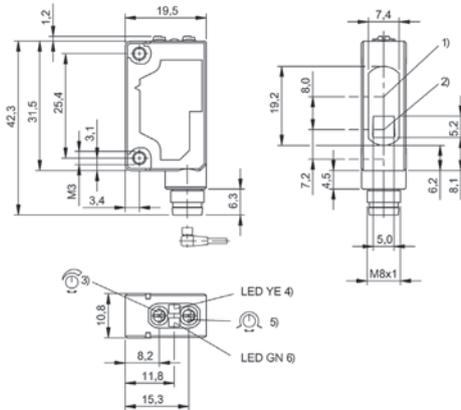
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS020R



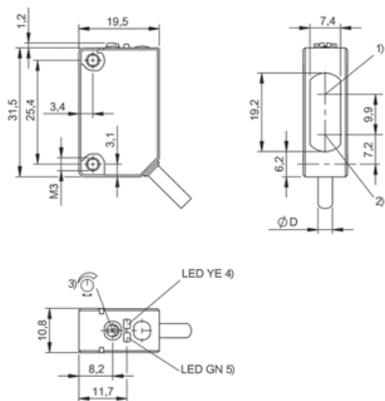
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021M



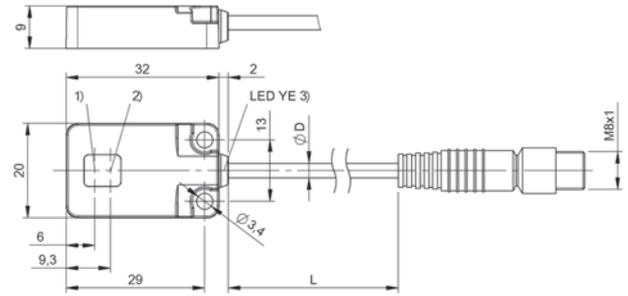
1) Optical axis receiver, 2) Optical axis emitter, 3) Sensitivity, 4) Output function, 5) Light-on/dark-on, 6) stability

BOS01JW



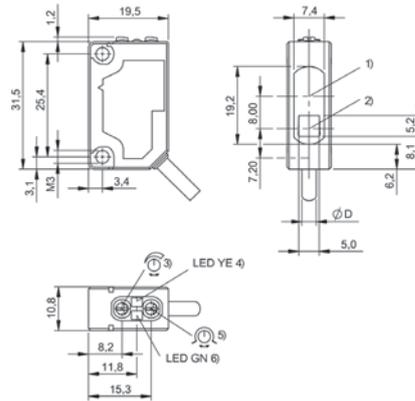
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS012C



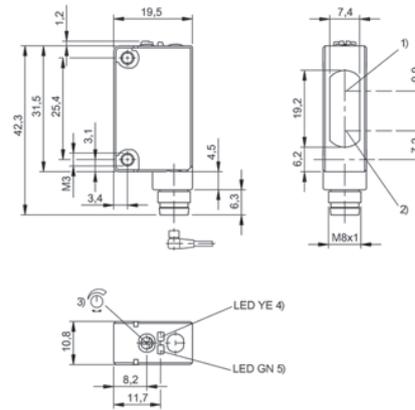
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021L



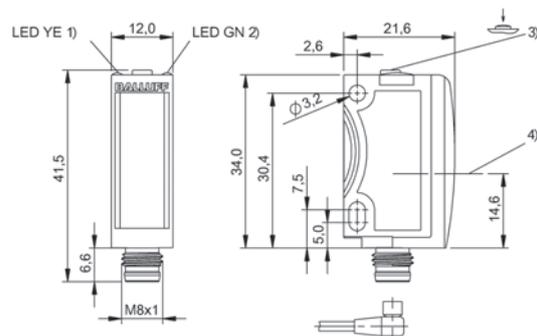
1) Optical axis receiver, 2) Optical axis emitter, 3) Sensitivity, 4) Output function, 5) Light-on/dark-on, 6) stability

BOS01JT



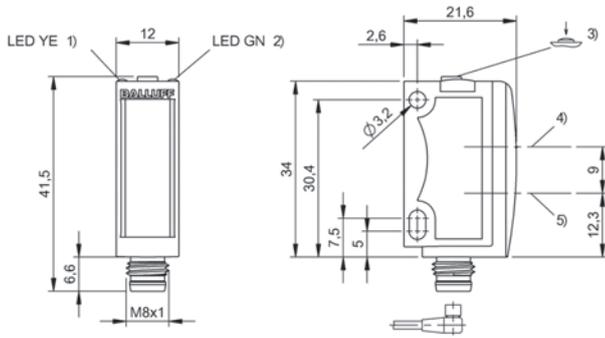
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS0121, BOS015E, BOS012E



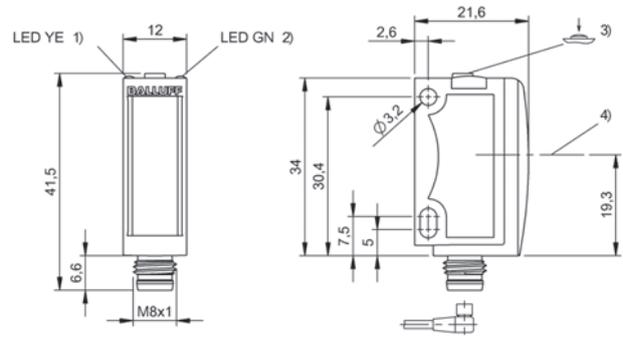
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis

BOS01M4



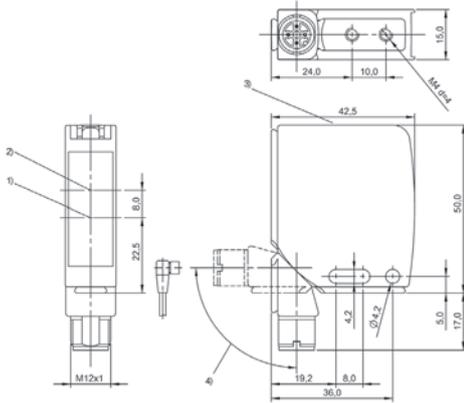
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01MH, BOS01MJ



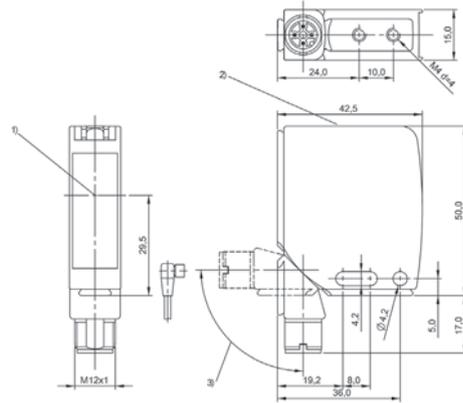
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis

BOS01L8



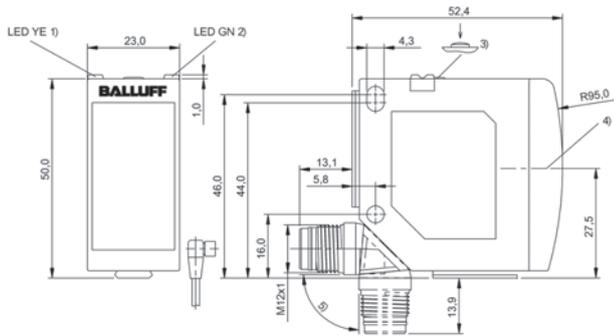
1) Optical axis emitter, 2) Optical axis receiver, 3) Display and control panel, 4) rotatable 270°

BOS00TL, BOS00TR



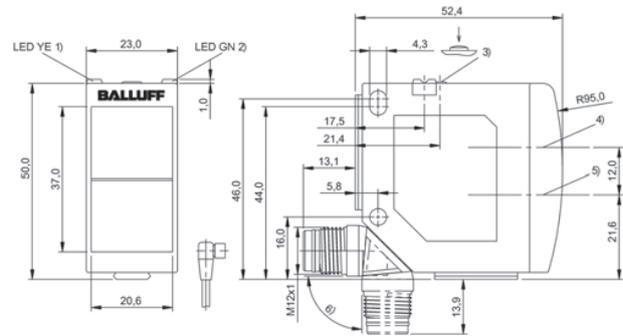
1) Optical axis, 2) Display and control panel, 3) rotatable 270°

BOS00TN, BOS00TU



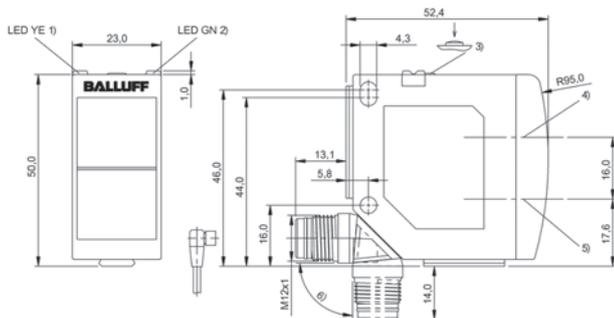
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis, 5) rotatable 270°

BOS01NC



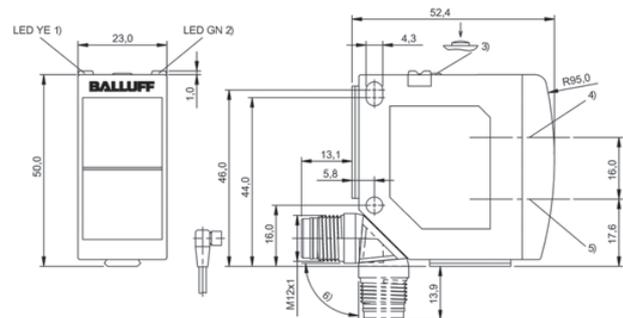
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

BOS016U



1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

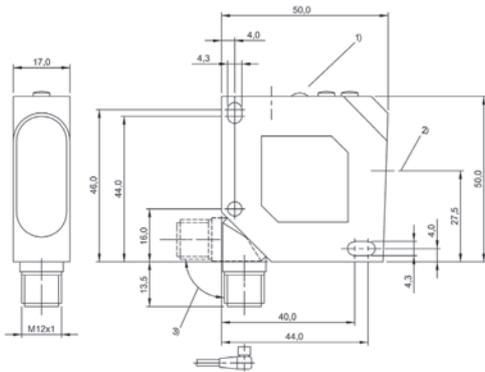
BOS01FN



1) Output function/Error, 2) Power/setting mode, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

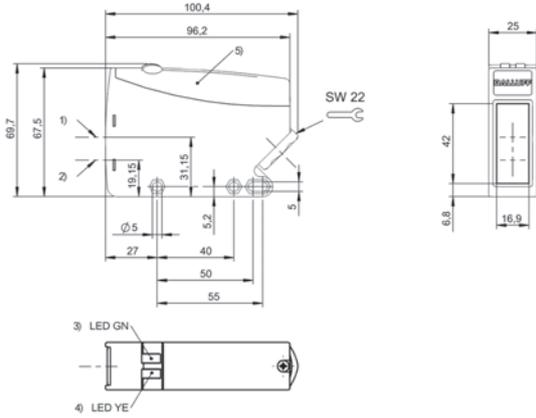
BOS016P

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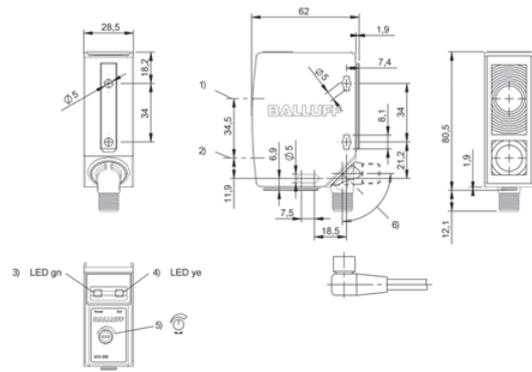
1) Display and control panel, 2) Optical axis, 3) rotatable 270°

BOS008L, BOS008M



1) Optical axis receiver, 2) Optical axis emitter, 3) Stability, 4) Output function, 5) Removable cover

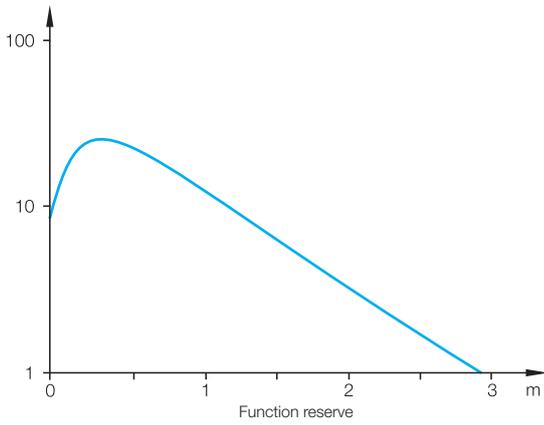
BOS01K3



1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn, 6) rotatable 270°

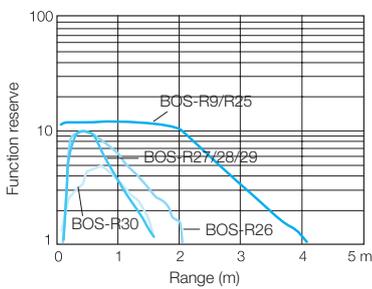
BOS01CR

Retroreflective sensor BOS 2K

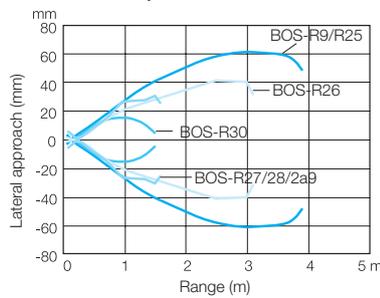


Retroreflective sensor BOS 5K-...-RR10-...

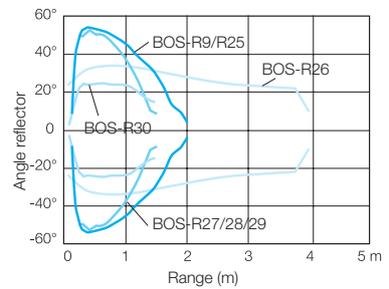
Receiving characteristics



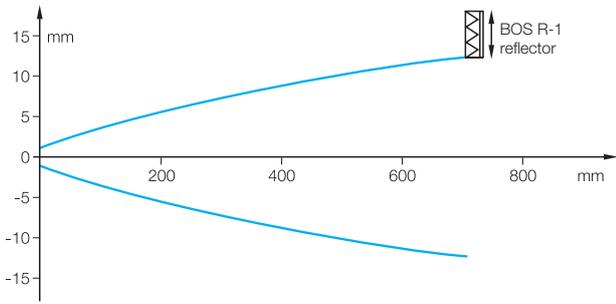
Characteristic response curve



Angular Offset

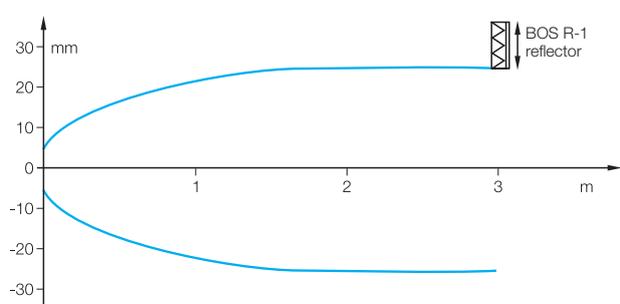


Retroreflective sensor BOS 6K-...-1QA-...



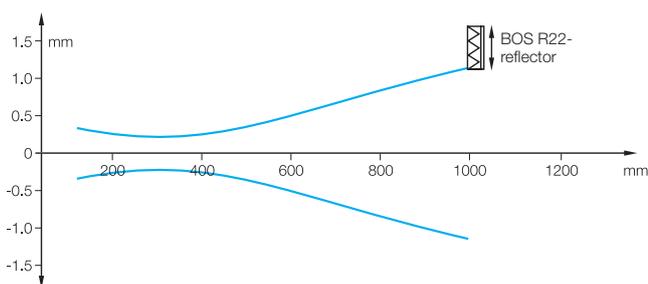
Range measured with side approach with reflector.

Retroreflective sensor BOS 6K-...-1QC-...



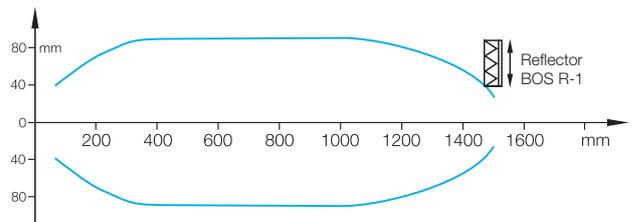
Range measured with side approach with reflector.

Retroreflective sensor BOS 6K-...-1LQA-...



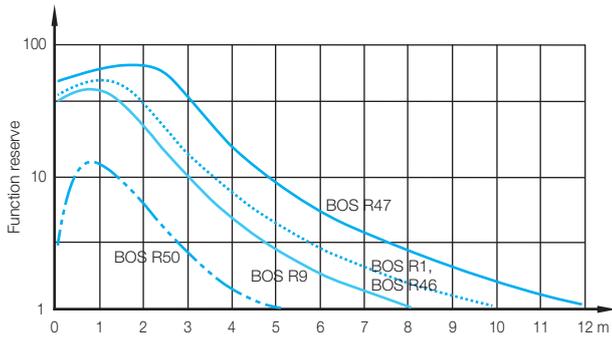
Range measured with side approach with reflector.

Retroreflective sensor BOS 12M-...-1QA-...

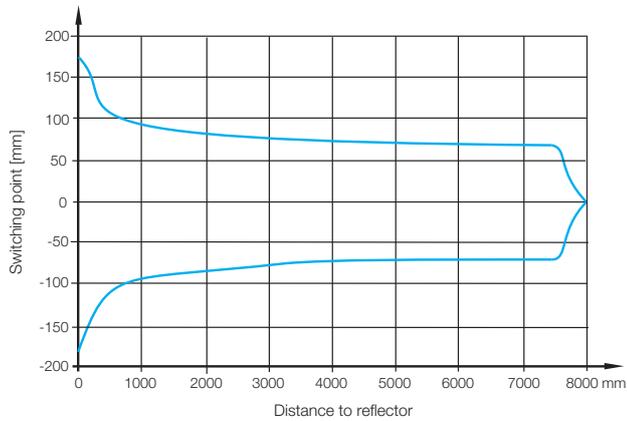


Range measured with side approach with reflector.

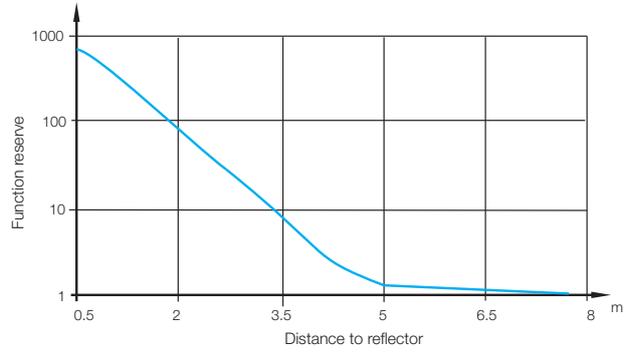
Retroreflective sensor BOS 18M...IR20/IR21-S4



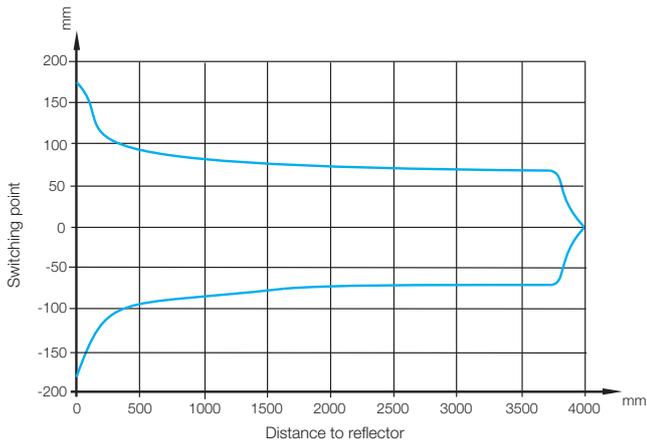
**Retroreflective sensor BOS 18M...PR20...
Response curve**



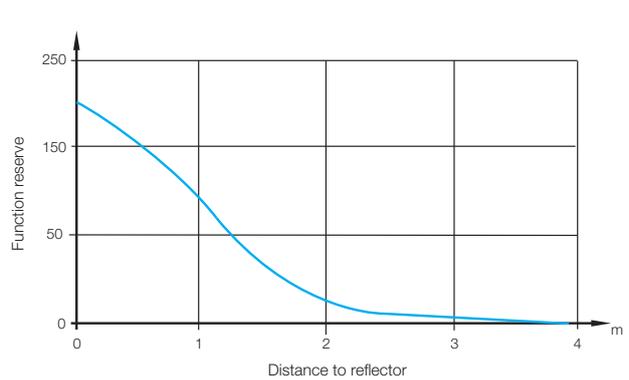
**Retroreflective sensor BOS 18M...PR20...
Function reserve**



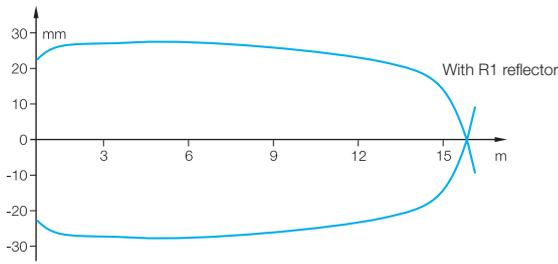
**Retroreflective sensor BOS 18M...PR23
response curve**



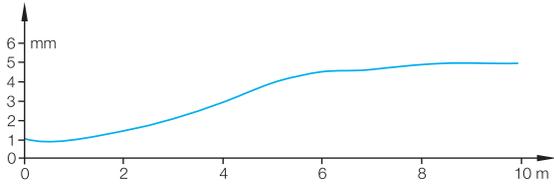
**Retroreflective sensor BOS 18M...PR23
Function reserve**



Retroreflective sensor BOS 18M-...-LR10-...

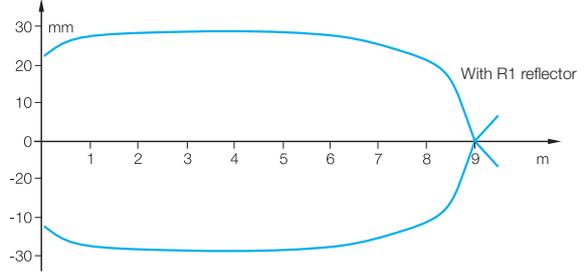


Detection range

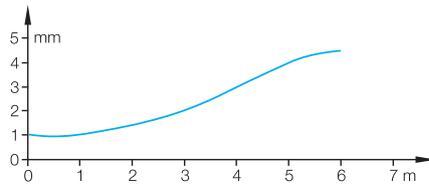


Resolution

Retroreflective sensor BOS 18MR-...-LR10-...

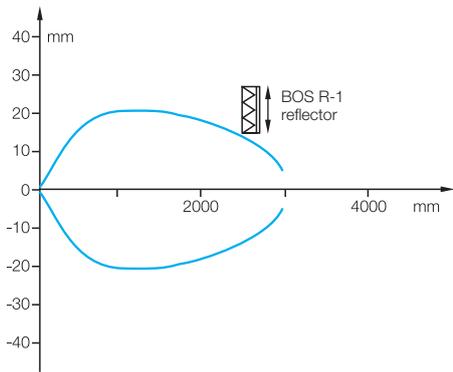


Detection range



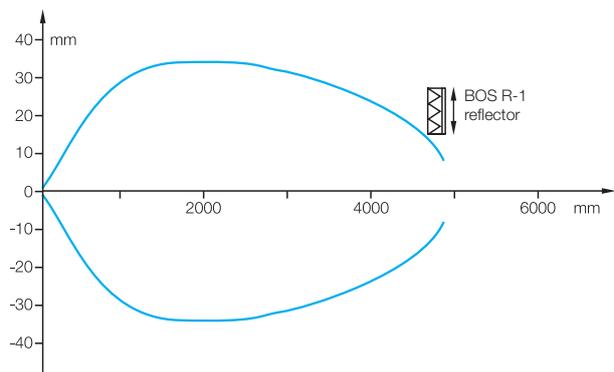
Resolution

Retroreflective sensor BOS 18E-...-1UB-...



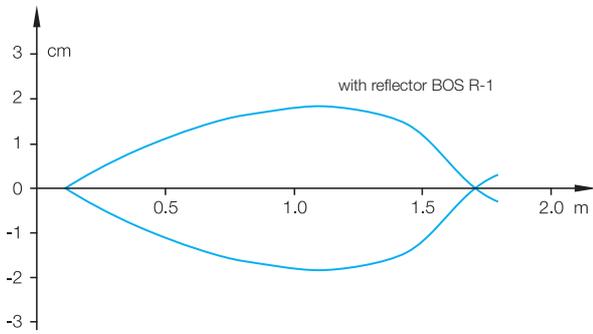
Range measured with side approach with reflector.

Retroreflective sensor BOS 18E-...-1WD-...

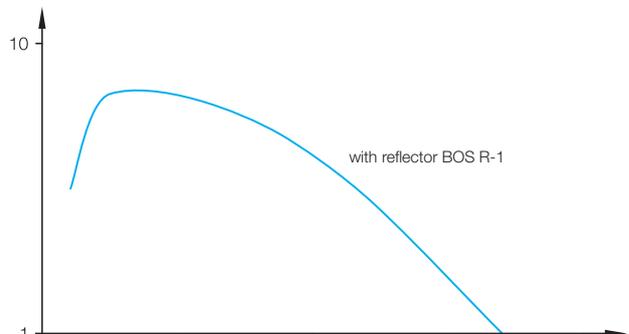


Range measured with side approach with reflector.

Retroreflective sensor BOS 18KF-...-1TB-...

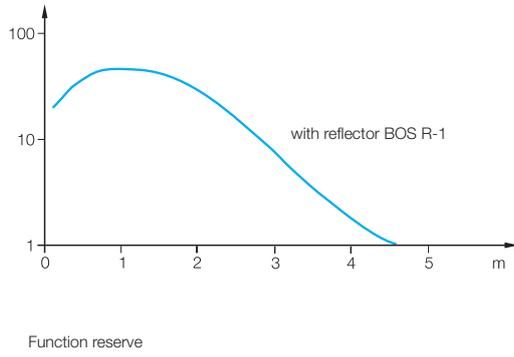
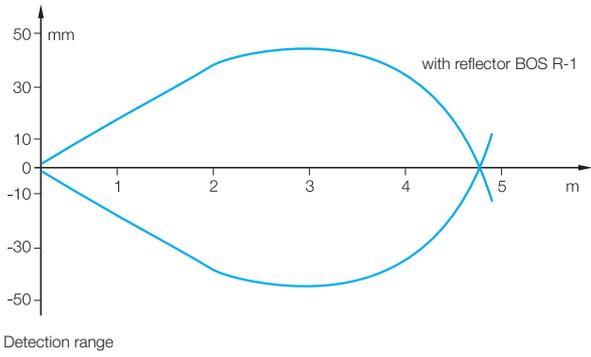


Detection range

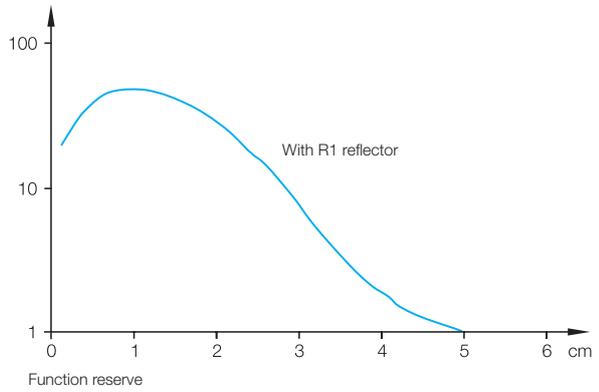
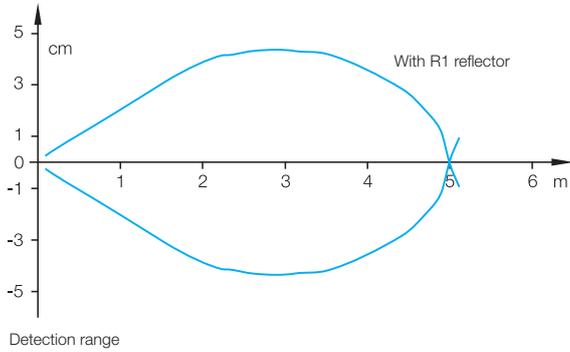


Function reserve

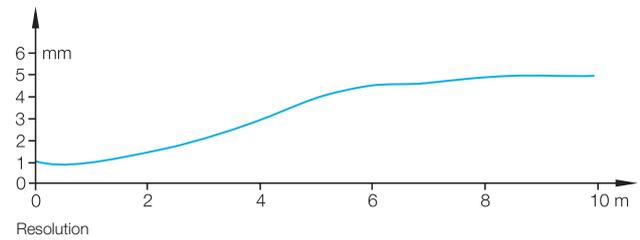
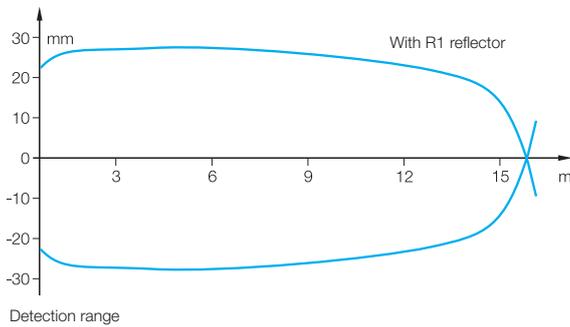
Retroreflective sensor BOS 18KF-...-1QD-...



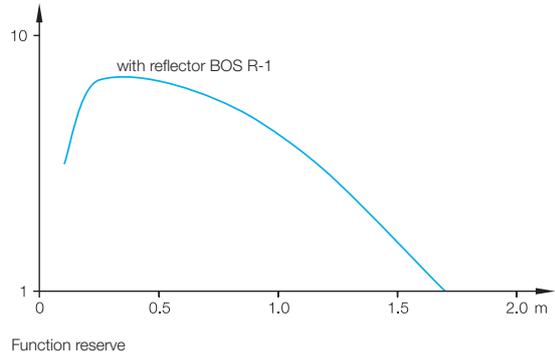
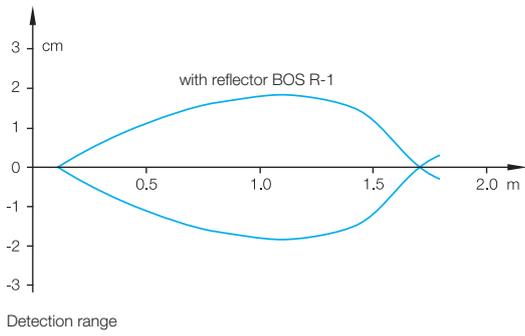
Retroreflective sensor BOS 18KF-...-1RE-...



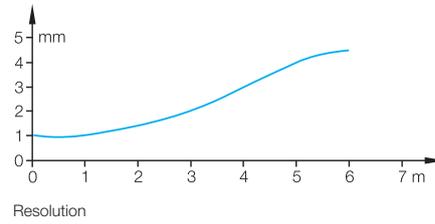
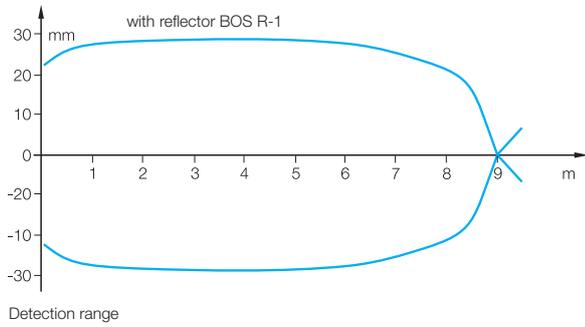
Retroreflective sensor BOS 18KF-...-1LQP-...



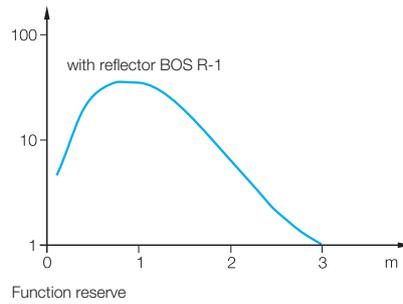
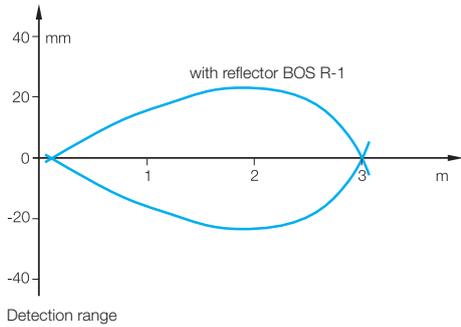
Retroreflective sensor BOS 18KW-..-1TB-...



Retroreflective BOS 18KW-..-1LQH-...



Retroreflective sensor BOS 18KW-..-1QC-...





PNP normally open	BOS024L BOS 08E-PS-LE20-00,2-S49	BOS01U3 BOS 08E-PS-LE20-S49	BOS020F BOS 08E-PS-KE20-S49	
PNP normally closed			BOS020A BOS 08E-P0-KE20-S49	
Emitter				
Series	08E	08E	08E	
Dimension	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 8 x 40 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	
Special optical feature	—	—	—	
Beam characteristic	—	—	—	
Light type	Laser red light	Laser red light	LED, red light	
Light spot size	—	—	—	
Range	0...3 m	0...3 m	0...2.2 m	
Connection	—	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	—	cULus, CE, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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	BOS020C BOS 08E-PS-KE20-00,2-S49				
		BOS024N BOS 08E-X-LS20-00,2-S49	BOS01U8 BOS 08E-X-LS20-S49	BOS01Z7 BOS 08E-X-KS20-00,2-S49	BOS01Z5 BOS 08E-X-KS20-S49
	08E	08E	08E	08E	08E
	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 8 x 40 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)
	—	—	—	—	—
	—	Collimated	Collimated	Divergent	Divergent
	LED, red light	Laser red light	Laser red light	LED, red light	LED, red light
	—	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	—	—
	0...2.2 m	0...3 m	0...3 m	0...2.2 m	0...2.2 m
	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	—	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Connector, M8x1 connector, 3-pin
	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC	—	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC
	—	—	—	—	—
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PNP normally open		BOS01TY BOS 12M-PS-RE10-S4		
PNP normally open, PNP normally closed	BOS00WF BOS 12M-PA-LE10-S4			
Emitter			BOS00WH BOS 12M-X-LS11-S4	
Series	12M	12M	12M	
Dimension	Ø 12 x 70 mm	Ø 12 x 60 mm	Ø 12 x 70 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	—	—	Focus, typical at 500 mm	
Light type	Laser red light	LED, red light	Laser red light	
Light spot size	—	—	Ø 2.5 mm Light exit	
Range	0...30 m	0...8 m	0...3 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Brass	Brass	Brass	
Material sensing surface	PMMA	PMMA	Glass	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	CE, cULus, EAC	CE, cULus	
Trademark	—	Global	—	
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					BOS01F3 BOS 18M-PA-IE20-S4
	BOS00WJ BOS 12M-X-LS12-S4	BOS00WL BOS 12M-XT-LS11-S4	BOS00WN BOS 12M-XT-LS12-S4	BOS01TW BOS 12M-X-RS10-S4	
	12M	12M	12M	12M	18M
	Ø 12 x 70 mm	Ø 12 x 70 mm	Ø 12 x 70 mm	Ø 12 x 60 mm	Ø 18 x 75 mm
	—	Test (Emitter off)	Test (Emitter off)	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (receiver)
	—	—	—	—	—
	Collimated	Focus, typical at 500 mm	Collimated	—	—
	Laser red light	Laser red light	Laser red light	LED, red light	Infrared
	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 280 mm at 8 m	—
	0...30 m	0...3 m	0...30 m	0...8 m	0...50 m
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Brass	Brass	Brass	Brass	Brass
	Glass	Glass	Glass	PMMA	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus	CE, cULus	CE, cULus	CE, cULus, EAC	cULus, CE, EAC
	—	—	—	Global	—
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PNP normally open		BOS01C2 BOS 18M-PS-RE20-S4		
PNP normally open, PNP normally closed	BOS01NJ BOS 18M-PA-LE20-S4	BOS01CC BOS 18M-PA-RE20-S4		
PNP normally open/normally closed				
PNP normally open/normally closed, IO-Link 1.1			BOS01UC BOS 18M-PI-RE30-S4	
Emitter				
Series	18M	18M	18M	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	
Special optical feature	—	—	—	
Beam characteristic	—	—	—	
Light type	Laser red light	LED, red light	LED, red light	
Light spot size	—	—	—	
Range	0...60 m	0...20 m	0...20 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Brass	Brass	Brass	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U_b	10...30 VDC	10...30 VDC	18...30 VDC	
Approval/Conformity	cULus, CE, EAC	CE, cULus, EAC	cULus, CE, EAC	
Trademark	—	—	—	
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	BOS01FE BOS 18M-PS-RE23-S4				
		BOS01J7 BOS 18M-PUV-RE30-S4			
			BOS01F5 BOS 18M-X-IS20-S4	BOS01HN BOS 18M-XT-IS20-S4	BOS01NH BOS 18M-XT-LS20-S4
	18M	18M	18M	18M	18M
	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm
	—	—	—	Test (Emitter off)	Test (Emitter off)
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)
	—	—	—	—	—
	—	—	—	—	Collimated
	LED, red light	LED, red light	Infrared	Infrared	Laser red light
	—	—	—	—	Ø 40 mm at 60 m
	0...20 m	0...20 m	0...50 m	0...50 m	0...60 m
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Brass	Brass	Brass	Brass	Brass
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC	cULus, CE, EAC	CE, cULus, EAC	CE, cULus, EAC	cULus, CE, EAC
	Global	—	—	—	—
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PNP normally open, PNP normally closed				
PNP normally open/normally closed, IO-Link 1.1				
Emitter	BOS01C0 BOS 18M-X-RS20-S4	BOS01FH BOS 18M-X-RS23-S4	BOS01CY BOS 18M-X-RS30-S4	
Series	18M	18M	18M	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
Interface	—	—	—	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	—	—	—	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	—	—	—	
Range	0...20 m	0...20 m	0...20 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Brass	Brass	Brass	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	Global	—	
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	BOS01KM BOS 18E-PA-RE20-S4	BOS023W BOS 18E-PA-RE30-S4		BOS023H BOS 18E-PI-RE30-S4	BOS01KR BOS G18E-PA-RE20-S4
BOS01UF BOS 18M-XI-RS30-S4					
18M	18E	18E	18E	18E	G18E
Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm
IO-Link 1.1	—	—	—	—	—
—	—	—	—	—	—
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Through-beam sensor (Emitter)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (receiver)
—	—	—	—	—	—
—	—	—	—	—	—
LED, red light	LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
—	—	—	—	—	—
0...20 m	0...20 m	0...20 m	0...20 m	0...20 m	0...20 m
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
Brass	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4571)	Stainless steel (1.4404)	Stainless steel (1.4404)
Glass	Glass	PMMA	Glass	Glass	Glass
18...30 VDC	10...30 VDC	10...30 VDC	18...30 VDC	10...30 VDC	10...30 VDC
cULus, CE, EAC	FDA compliant, Ecolab, CE, cULus, EAC	CE, cULus, Ecolab, EAC	cULus, CE, EAC	Ecolab, CE, FDA compliant, cULus, EAC	Ecolab, CE, FDA compliant, cULus, EAC
—	—	—	—	—	—
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PNP normally open, PNP normally closed	BOS0243 BOS G18E-PA-RE30-S4			
Emitter		BOS01KT BOS 18E-X-RS20-S4	BOS023U BOS 18E-X-RS30-S4	
Series	G18E	18E	18E	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
Interface	—	—	—	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	—	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	—	—	—	
Range	0...20 m	0...20 m	0...20 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)	
Material sensing surface	PMMA	Glass	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	Ecolab, cULus, CE, EAC	FDA compliant, Ecolab, cULus, CE, EAC	CE, cULus, Ecolab, EAC	
Trademark	—	—	—	
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				BOS00CT BLE 18KW-PA-1LT-S4-C	BOS00CW BLE 18KW-PA-1PP-S4-C
	BOS023J BOS 18E-XI-RS30-S4	BOS01KU BOS G18E-X-RS20-S4	BOS0242 BOS G18E-X-RS30-S4		
	18E	G18E	G18E	18KW	18KW
	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 14 mm	Ø 18 x 14 mm
	IO-Link 1.1	—	—	—	—
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (receiver)	Through-beam sensor (receiver)
	—	—	—	—	—
	—	Divergent	Divergent	—	—
	LED, red light	LED, red light	LED, red light	Laser red light	Infrared
	—	—	—	—	—
	0...20 m	0...20 m	0...20 m	0...50 m	0...15 m
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	Stainless steel (1.4571)	Stainless steel (1.4404)	Stainless steel (1.4404)	PBT	PBT
	Glass	Glass	PMMA	PMMA	PMMA
	18...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC	CE, cULus, Ecolab, FDA compliant, EAC	CE, cULus, Ecolab, EAC	CE, cULus	CE, cULus
	—	—	—	Global	Global
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PNP normally open				
PNP normally closed				
PNP normally open, PNP normally closed			BOS00CH BLE 18KF-PA-1LT-S4-C	
Emitter	BOS00EW BLS 18KW-XX-1P-S4-L	BOS00ET BLS 18KW-XX-1LT-S4-L		
Series	18KW	18KW	18KF	
Dimension	Ø 18 x 14 mm	Ø 18 x 14 mm	Ø 18 x 81.5 mm	
Input function	Test (Emitter off)	Test (Emitter off)	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (receiver)	
Special optical feature	—	—	—	
Beam characteristic	—	—	—	
Light type	Infrared	Laser red light	Laser red light	
Light spot size	—	—	—	
Range	0...15 m	0...50 m	0...60 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	PBT	PBT	PBT	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus	CE, cULus	
Trademark	Global	Global	Global	
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				BOS0199 BOS Q08M-PS-LE20-S49	BOS0197 BOS Q08M-PS-LE20-00,2-S49
				BOS0196 BOS Q08M-PO-LE20-S49	
BOS00CK BLE 18KF-PA-1PP-S4-C					
	BOS00EP BLS 18KF-XX-1P-S4-L	BOS00EM BLS 18KF-XX-1LT-S4-L			
18KF	18KF	18KF	Q08M	Q08M	
Ø 18 x 81.5 mm	Ø 18 x 71.5 mm	Ø 18 x 71.5 mm	8 x 59 x 8 mm	8 x 44 x 8 mm	
—	Test (Emitter off)	Test (Emitter off)	—	—	
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	
—	—	—	—	—	
—	—	—	—	—	
Infrared	Infrared	Laser red light	Laser red light	Laser red light	
—	—	—	—	—	
0...20 m	0...20 m	0...60 m	0...3 m	0...3 m	
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	
PBT	PBT	PBT	Zinc, die-cast	Zinc, die-cast	
PMMA	PMMA	PMMA	PMMA	PMMA	
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
CE, cULus	CE, cULus, EAC	CE, cULus	CE, cULus, EAC	CE, cULus, EAC	
Global	Global	Global	—	—	
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PNP normally open	BOS01Y4 BOS Q08M-PS-KE21-S49	BOS01Y6 BOS Q08M-PS-KE21-00,2-S49		
PNP normally closed	BOS01Y7 BOS Q08M-PO-KE21-S49			
Emitter			BOS019M BOS Q08M-X-LS20-00,2-S49	
Series	Q08M	Q08M	Q08M	
Dimension	8 x 59 x 8 mm	8 x 44 x 8 mm	8 x 44 x 8 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	—	—	divergent, 2 mrad	
Light type	Red light	Red light	Laser red light	
Light spot size	—	—	Ø 3.0 mm Light exit	
Range	0...2.2 m	0...2.2 m	0...3 m	
Connection	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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				BOS0214 BOS R020K-PS-RX11-00,2-S49	BOS0211 BOS R020K-PS-RX11-02
	BOS018K BOS Q08M-X-LS20-S49	BOS01YM BOS Q08M-X-KS21-00,2-S49	BOS01YK BOS Q08M-X-KS21-S49		
	Q08M	Q08M	Q08M	R020K	R020K
	8 x 59 x 8 mm	8 x 44 x 8 mm	8 x 59 x 8 mm	7.7 x 26.8 x 13.5 mm	7.7 x 26.8 x 13.5 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor	Through-beam sensor
	—	—	—	—	—
	divergent, 2 mrad	Divergent	Divergent	Divergent	Divergent
	Laser red light	LED, red light	LED, red light	LED, red light	LED, red light
	Ø 3.0 mm Light exit	—	—	Ø 23 mm at 500 mm	Ø 23 mm at 500 mm
	0...3 m	0...2.2 m	0...2.2 m	0...2 m	0...2 m
	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Connector, M8x1 connector, 3-pin	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PVC	Cable, 2.00 m, PVC
	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	PC PBT	PC PBT
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC	cULus, CE, EAC	CE, cULus, EAC	cULus, CE	cULus, CE
	—	—	—	—	—
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PNP normally open	BOS021N BOS R01E-PS-KE20-00,2-S49	BOS021P BOS R01E-PS-KE20-02		
PNP normally closed				
PNP normally open/normally closed				
Emitter			BOS021R BOS R01E-X-KS20-00,2-S49	
Series	R01E	R01E	R01E	
Dimension	20 x 32 x 9 mm	20 x 32 x 9 mm	20 x 32 x 9 mm	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	—	—	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	—	—	Ø 3.0 mm Light exit	
Range	0...2.2 m	0...2.2 m	0...2.2 m	
Connection	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR	Cable with connector, M8x1 connector, 3-pin, 0.20 m, PUR	
Housing material	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)	
Material sensing surface	PA	PA	PA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, Ecolab, EAC	cULus, CE, Ecolab, EAC	cULus, CE, Ecolab, EAC	
Trademark	—	—	—	
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	BOS0126 BOS 5K-PS-IX10-S75	BOS0125 BOS 5K-PS-IX10-02		BOS01JP BOS 5K-PU-LX10-S75	BOS01LU BOS 6K-PU-LE10-S49
	BOS011R BOS 5K-P0-IX10-S75				
BOS021T BOS R01E-X-KS20-02					
R01E	5K	5K	5K	5K	6K
20 x 32 x 9 mm	10.8 x 43.5 x 19.5 mm	10.8 x 32.7 x 19.5 mm	10.8 x 43.5 x 19.5 mm	12 x 41.5 x 21.6 mm	
—	—	—	—	—	—
Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor (receiver)
—	—	—	—	—	—
Divergent	Divergent	Divergent	Divergent	Divergent	—
LED, red light	Infrared	Infrared	Laser red light	Laser red light	
Ø 3.0 mm Light exit	Ø 90 mm at 2 m	Ø 90 mm at 2 m	Ø 5 mm at 3 m	—	
0...2.2 m	0...20 m	0...20 m	0...30 m	0...18 m	
Cable, 2.00 m, PUR	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PVC	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 3-pin	
Stainless steel (1.4404)	PC PBT	PC PBT	PC PBT	ABS	
PA	PMMA	PMMA	PMMA	PMMA	
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
cULus, CE, Ecolab, EAC	cULus, CE, EAC	cULus, CE, EAC	CE, cULus, CDRH, EAC	CE, cULus, EAC	
—	Global	Global	Global	—	
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PNP normally open, PNP normally closed				
PNP normally open/normally closed	BOS01LW BOS 6K-PU-LE10-S75			
Emitter		BOS01M1 BOS 6K-XT-LS10-S49	BOS01M2 BOS 6K-XT-LS10-S75	
Series	6K	6K	6K	
Dimension	12 x 41.5 x 21.6 mm	12 x 41 x 21.6 mm	12 x 41 x 21.6 mm	
Input function	Same function as button, Key disable on/off	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	—	Divergent	Divergent	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	—	14 x 14 mm at 20 m	14 x 14 mm at 20 m	
Range	0...18 m	0...18 m	0...18 m	
Connection	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 4-pin	
Housing material	ABS	ABS	ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC	
Trademark	—	—	—	
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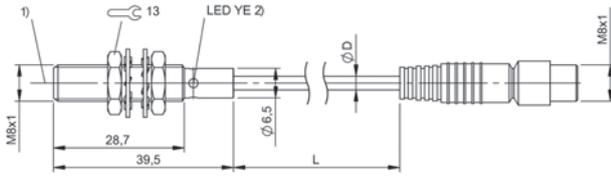
	BOS00WT BOS 21M-PA-IE10-S4	BOS00WW BOS 21M-PA-LE10-S4			BOS01FU BOS 23K-PA-LE10-S4
					BOS016L BOS 23K-PU-LE10-S4
			BOS00WZ BOS 21M-XT-IS11-S4	BOS00YO BOS 21M-XT-LS11-S4	
	21M	21M	21M	21M	23K
	15 x 50 x 42.5 mm	23 x 51 x 52.4 mm			
	—	—	Test (Emitter off)	Test (Emitter off)	Same function as button, Key disable on/off
	Photoelectric sensor				
	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (receiver)
	—	—	—	—	—
	—	—	—	—	—
	Infrared	Laser red light	Infrared	Laser red light	Laser red light
	—	—	—	—	—
	0...20 m	0...60 m	0...20 m	0...60 m	0...30 m
	Connector, M12x1 connector, 4-pin				
	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	PC ABS
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC				
	CE, cULus	CE, cULus	CE, cULus	CE, cULus	Ecolab, CE, cULus
	—	—	—	—	—
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PNP normally open, PNP normally closed	BOS01FP BOS 23K-PA-RE10-S4			
PNP normally open/normally closed		BOS016F BOS 23K-PU-RE10-S4		
Relay normally open/normally closed				
Emitter			BOS016K BOS 23K-XT-LS11-S4	
Series	23K	23K	23K	
Dimension	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	
Input function	—	Same function as button, Key disable on/off	Test (Emitter off)	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	—	—	Divergent	
Light type	LED, red light	LED, red light	Laser red light	
Light spot size	—	—	30 x 30 mm at 25 m	
Range	0...25 m	0...25 m	0...30 m	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	PC ABS	PC ABS	PC ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	Ecolab, CE, cULus, EAC	CE, Ecolab, cULus, EAC	CE, cULus, Ecolab	
Trademark	—	—	—	
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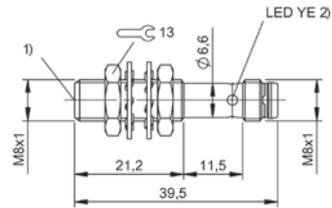


		BOS01CK BOS 50K-PA-RE10-S4			
				BOS01K4 BOS 64K-AA-IE10-TG	
BOS016E BOS 23K-XT-RS11-S4			BOS01CN BOS 50K-XT-RS10-S4		BOS01K5 BOS 64K-AA-IS10-TG
23K	50K		50K	64K	64K
23 x 51 x 52.4 mm	28.5 x 80.5 x 62 mm		28.5 x 80.5 x 62 mm	25 x 69.7 x 100.4 mm	25 x 69.7 x 100.4 mm
Test (Emitter off)	—		Test (Emitter off)	—	—
Photoelectric sensor	Photoelectric sensor		Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
Through-beam sensor (Emitter)	Through-beam sensor (receiver)		Through-beam sensor (Emitter)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)
—	—		—	—	—
Divergent	—		Divergent	—	Divergent
LED, red light	LED, red light		LED, red light	Infrared	Infrared
600 x 600 mm at 20 m	—		200 x 200 mm at 10 m	—	—
0...25 m	0...60 m		0...60 m	0...50 m	0...50 m
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin		Connector, M12x1 connector, 4-pin	Screw terminals	Screw terminals
PC ABS	PC ABS		PC ABS	PBT, GF30	PBT, GF30
PMMA	Glass		Glass	PC	PC
10...30 VDC	10...30 VDC		10...30 VDC	24...60 VDC/24...240 VAC	24...60 VDC/24...240 VAC
CE, Ecolab, cULus, EAC	CE, cULus, EAC		CE, cULus	cULus, CE, EAC	cULus, CE, EAC
—	—		—	—	—
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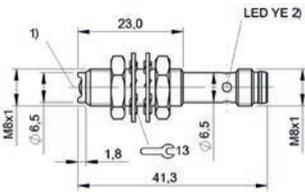
1) Optical axis, 2) Output function

BOS024L



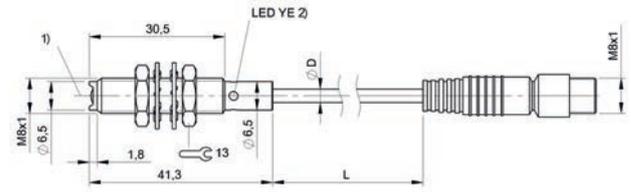
1) Optical axis, 2) Output function

BOS01U3



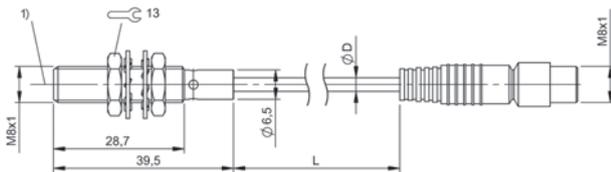
1) Optical axis, 2) Output function

BOS020A, BOS020F, BOS01Z5



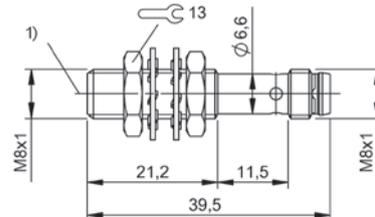
1) Optical axis, 2) Output function

BOS020C, BOS01Z7



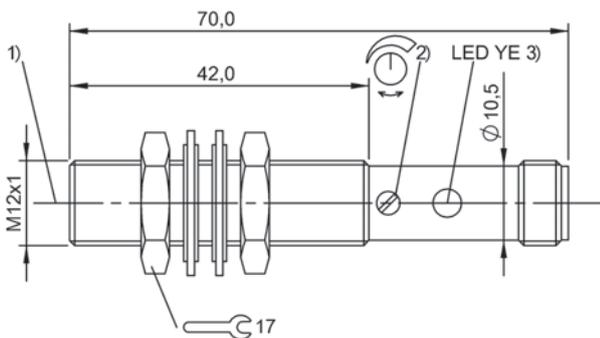
1) Optical axis

BOS024N



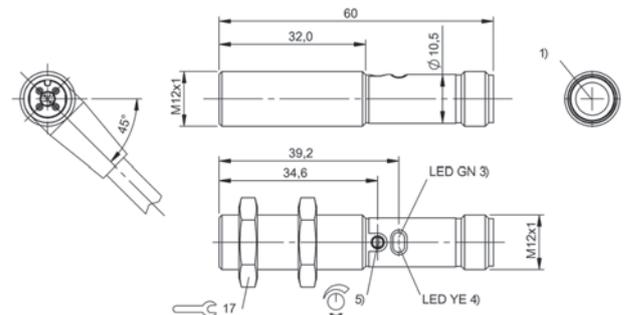
1) Optical axis

BOS01U8



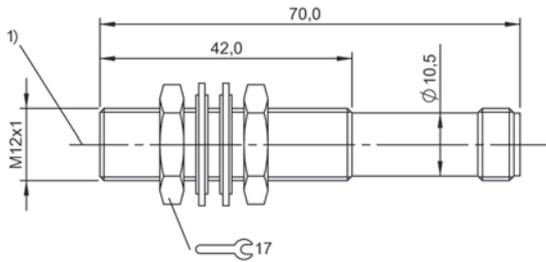
1) Optical axis, 2) Sn, 3) Output function

BOS00WF



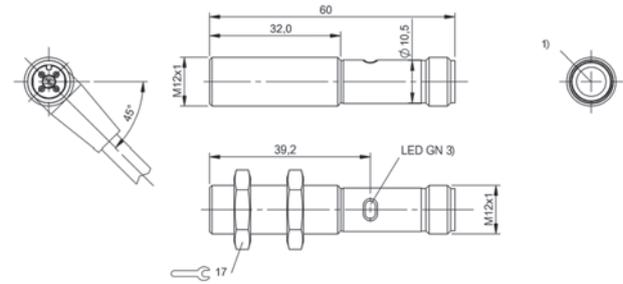
1) Optical axis receiver, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01TY



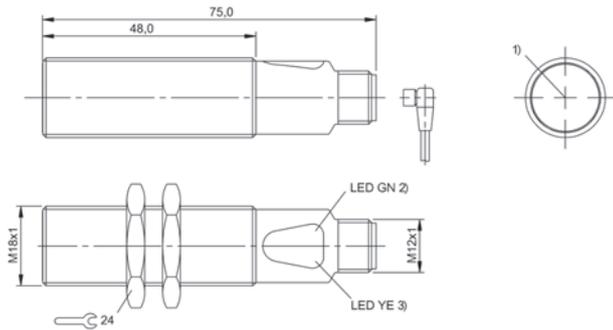
1) Optical axis

BOS00WH, BOS00WJ, BOS00WL, BOS00WN



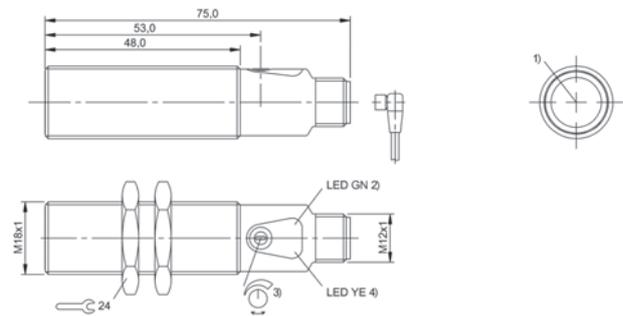
1) Optical axis emitter, 3) Operating voltage

BOS01TW



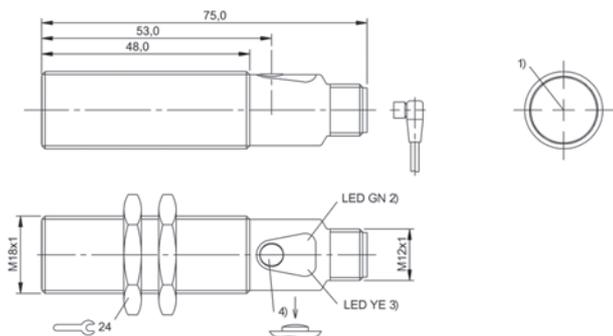
1) Optical axis, 2) Operating voltage, 3) Light reception/limit area

BOS01F3, BOS01CC, BOS01FK, BOS01C2



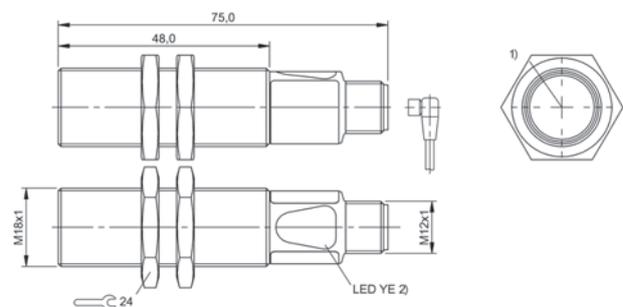
1) Optical axis, 2) Operating voltage/Error, 3) Sn, 4) Light reception/limit area

BOS01NJ



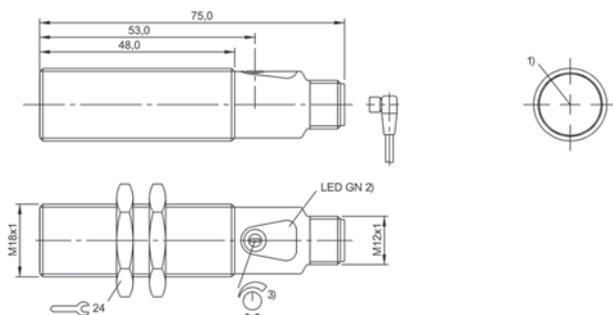
1) Optical axis, 2) Power/short-circuit, 3) Light reception/limit area, 4) Sn

BOS01UC, BOS01J7



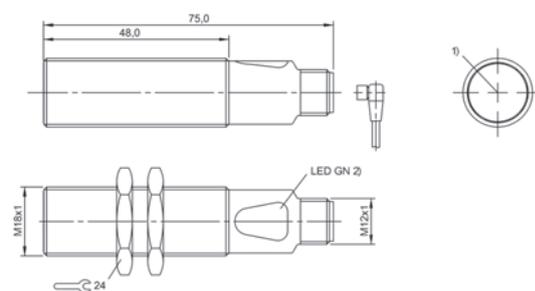
1) Optical axis, 2) Light reception

BOS01FE



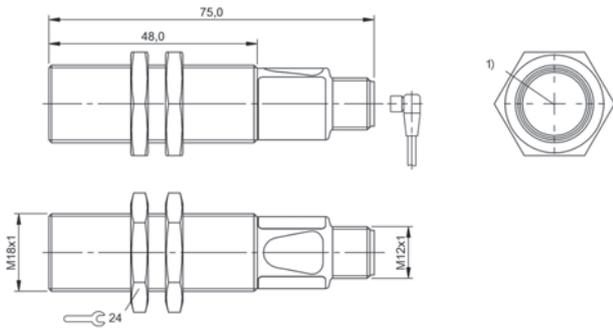
1) Optical axis, 2) Operating voltage, 3) Sn

BOS01F5, BOS01HN, BOS01C0



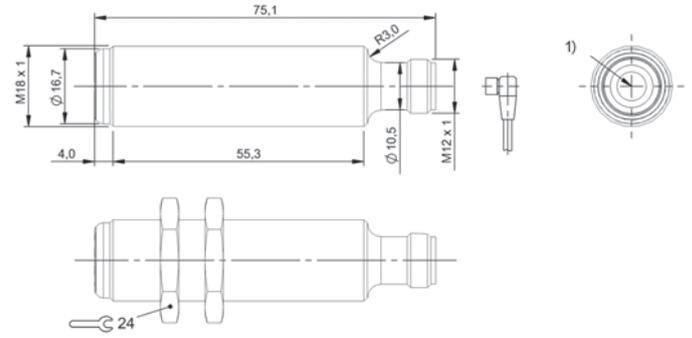
1) Optical axis, 2) Operating voltage

BOS01NH, BOS01CY, BOS01UF



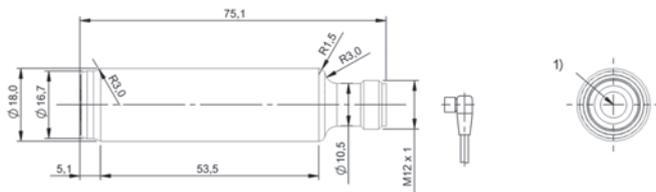
1) Optical axis

BOS01FH



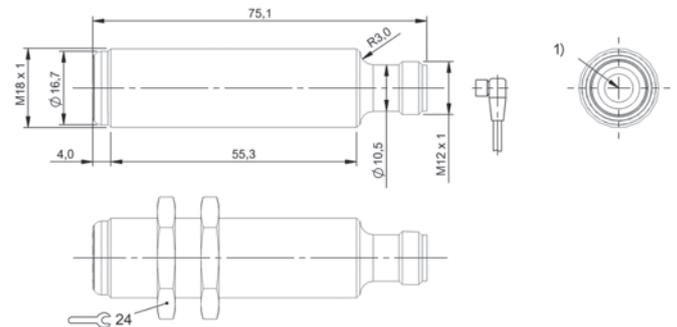
1) Optical axis receiver

BOS01KM, BOS023W, BOS023H



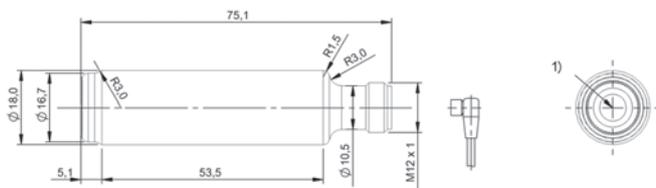
1) Optical axis receiver

BOS01KR, BOS0243



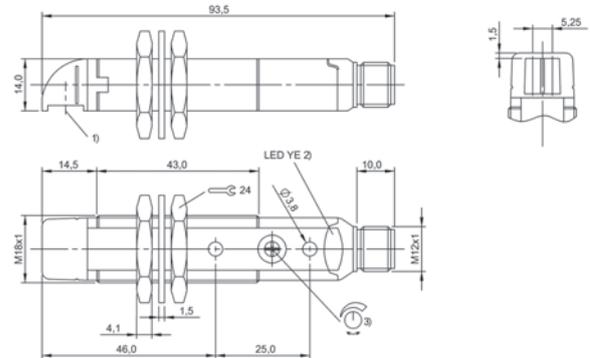
1) Optical axis emitter

BOS01KT, BOS023U, BOS023J



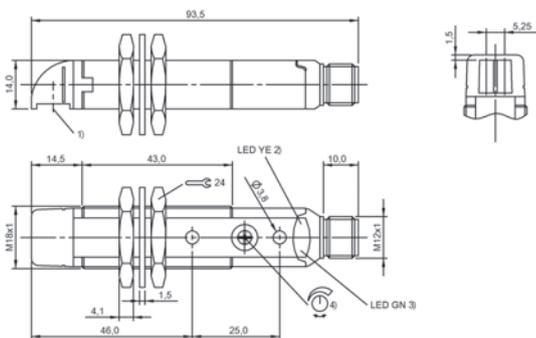
1) Optical axis emitter

BOS01KU, BOS0242



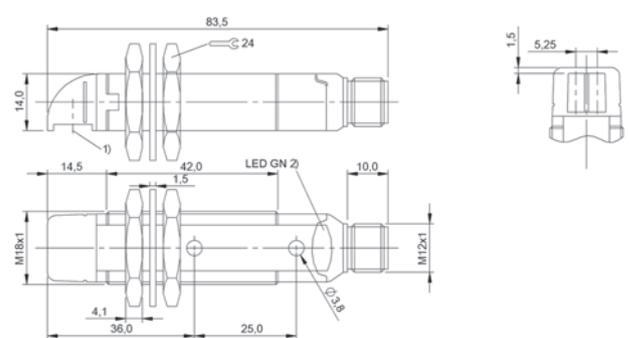
1) Optical axis, 1) Output function, 3) Sn

BOS00CT



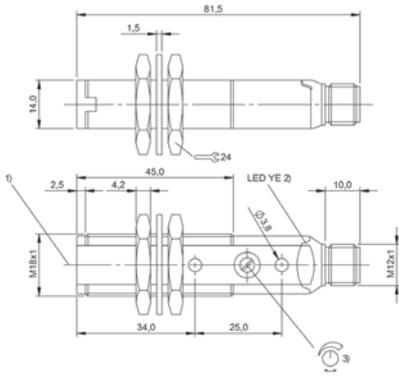
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00CW



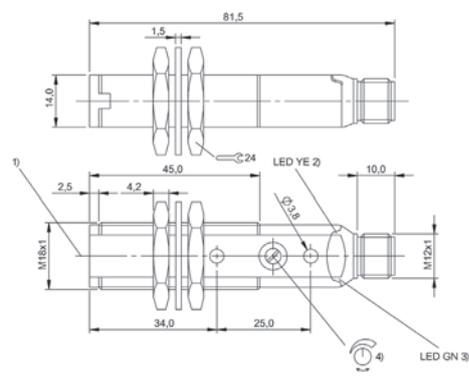
1) Optical axis, 2) Operating voltage

BOS00EW, BOS00ET



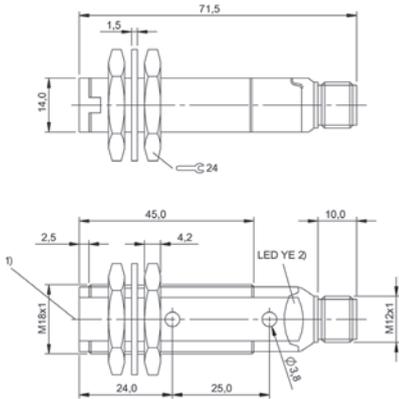
1) Optical axis, 2) Output function, 3) Sn

BOS00CH



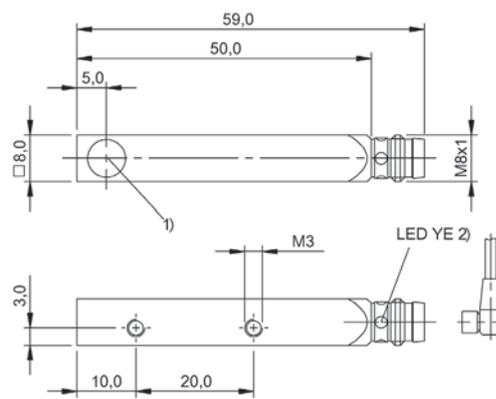
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00CK



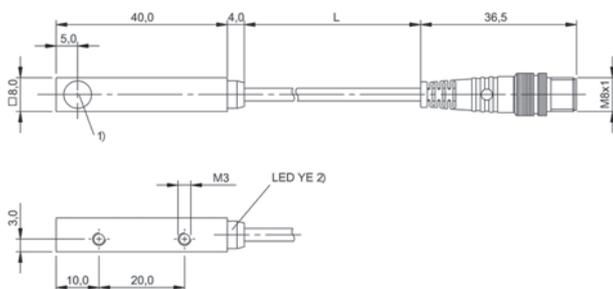
1) Optical axis, 2) Operating voltage

BOS00EP, BOS00EM



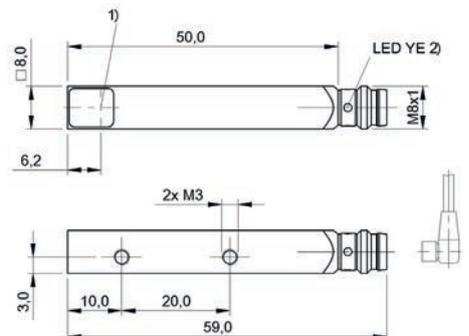
1) Optical axis, 2) Light reception

BOS0196, BOS0199



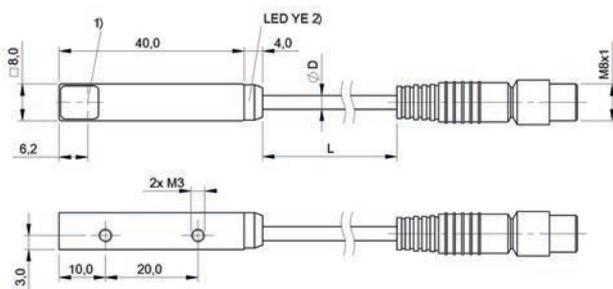
1) Optical axis, 2) Light reception

BOS0197



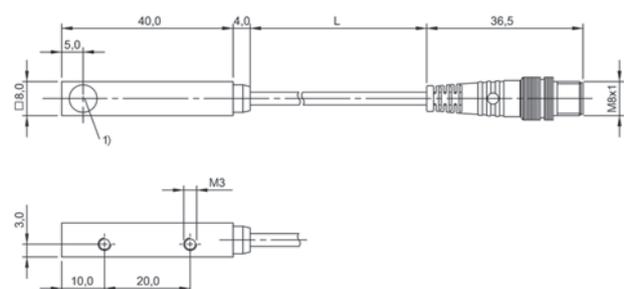
1) Optical axis receiver, 2) Output function

BOS01Y7, BOS01Y4



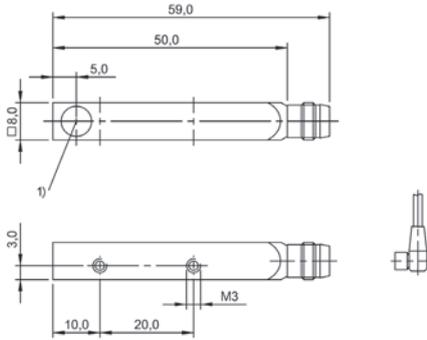
1) Optical axis receiver, 2) Output function

BOS01Y6



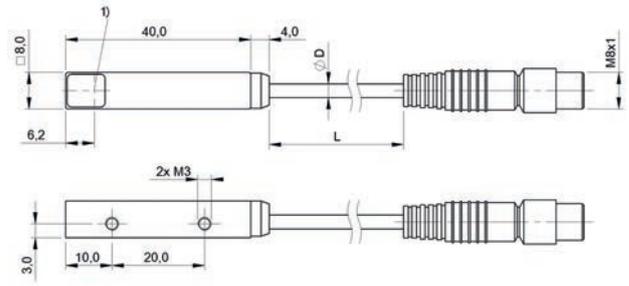
1) Sensing surface

BOS019M



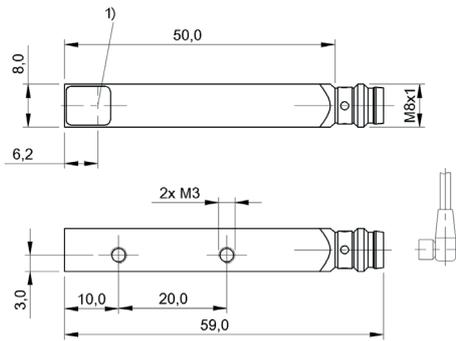
1) Sensing surface

BOS018K



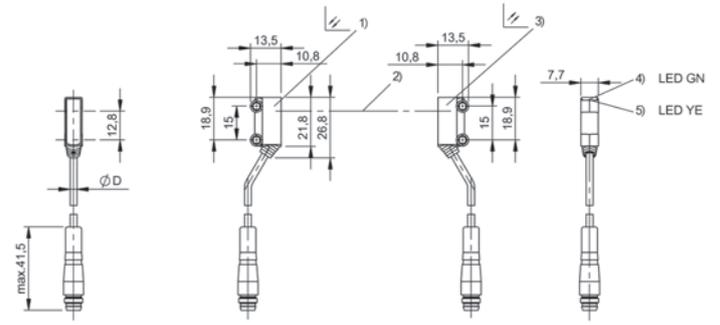
1) Optical axis emitter

BOS01YM



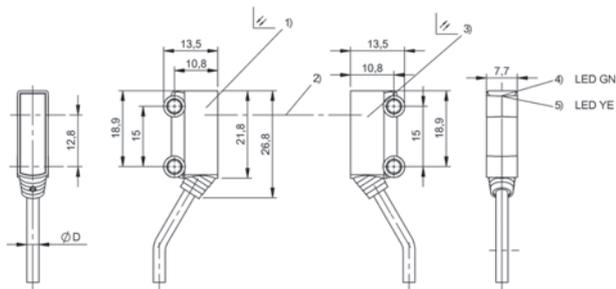
1) Optical axis emitter

BOS01YK



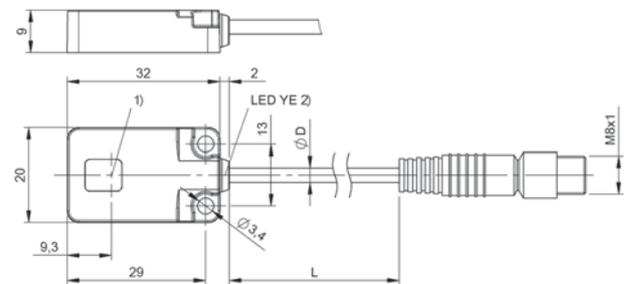
1) Emitter, 2) Optical axis, 3) Receiver, 4) Operating voltage, 5) Output function

BOS0214



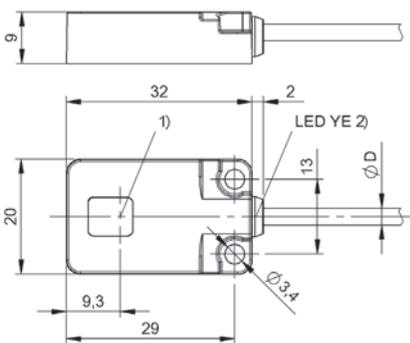
1) Emitter, 2) Optical axis, 3) Receiver, 4) Operating voltage, 5) Output function

BOS0211



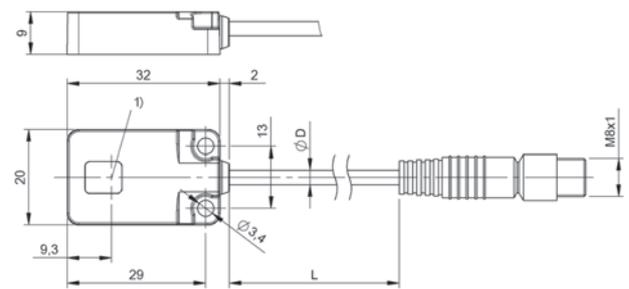
1) Optical axis receiver, 2) Output function

BOS021N



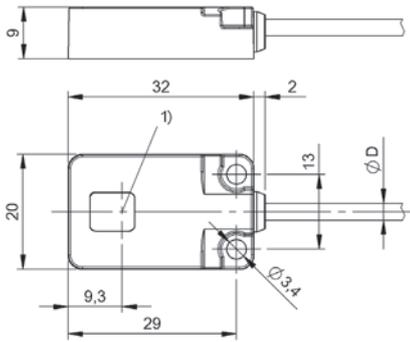
1) Optical axis receiver, 2) Output function

BOS021P



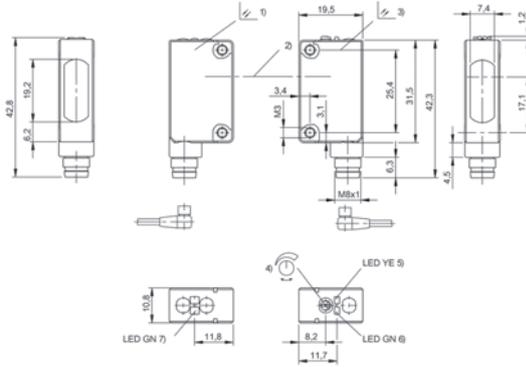
1) Optical axis emitter

BOS021R



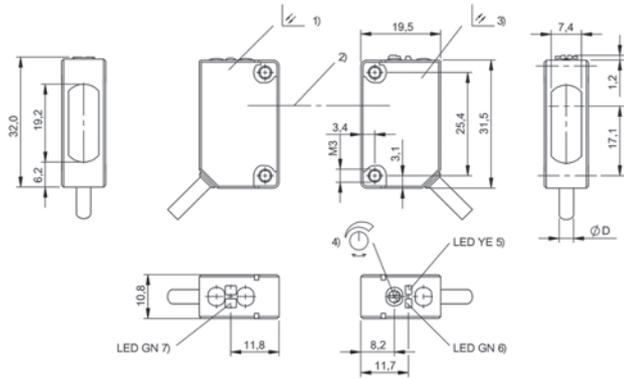
1) Optical axis emitter

BOS021T



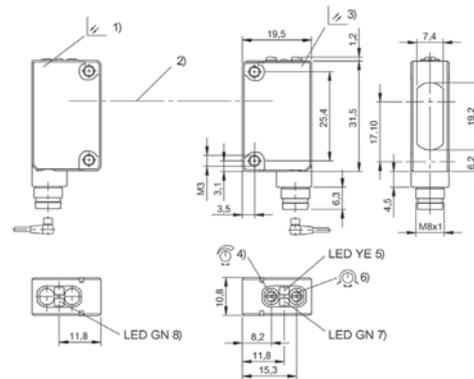
1) Emitter, 2) Optical axis, 3) Receiver, 4) Sensitivity, 5) Output function, 6) stability, 7) Operating voltage

BOS011R, BOS0126



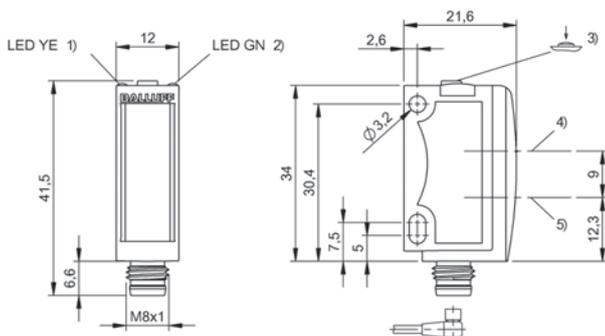
1) Emitter, 2) Optical axis, 3) Receiver, 4) Sensitivity, 5) Output function, 6) stability, 7) Operating voltage

BOS0125



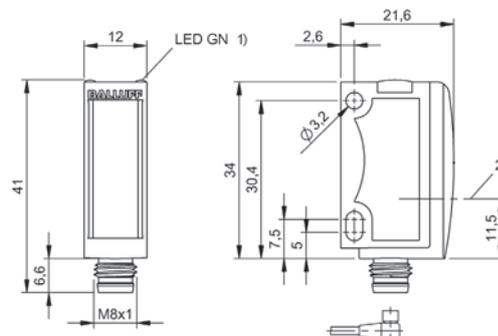
1) Emitter, 2) Optical axis, 3) Receiver, 4) Sensitivity, 5) Output function, 6) Light-on/dark-on, 7) stability, 8) Operating voltage

BOS01JP



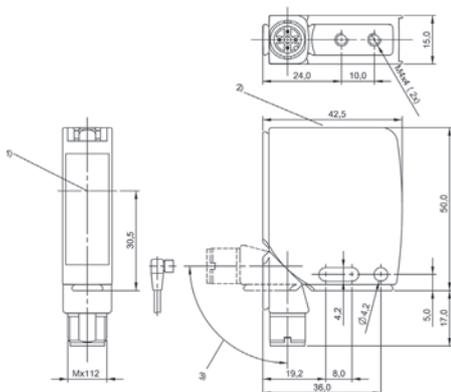
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis

BOS01LU, BOS01LW



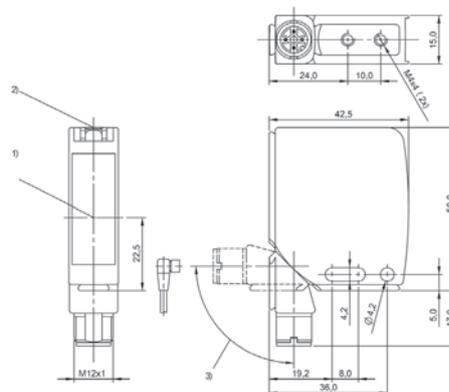
1) Operating voltage, 2) Optical axis

BOS01M1, BOS01M2



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

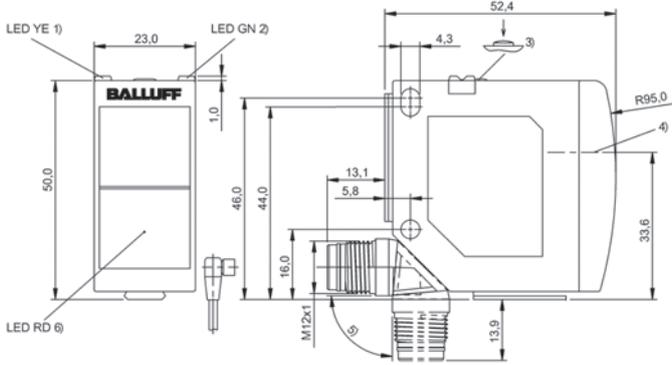
BOS00WT, BOS00WW



1) Optical axis, 2) Operating voltage, 3) rotatable 270°

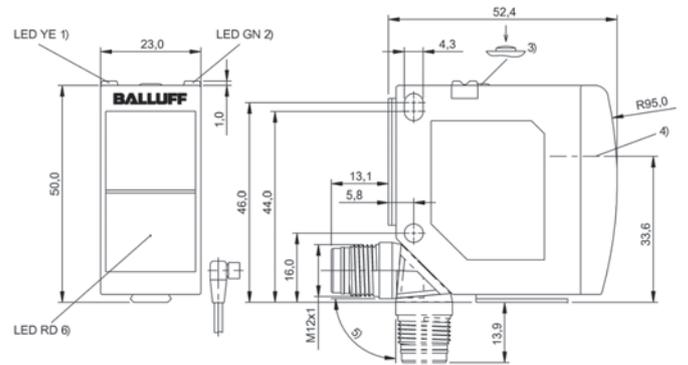
BOS00WZ, BOS00Y0

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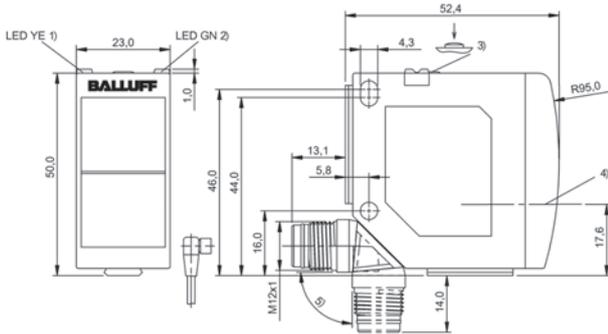
1) Output function/Error, 2) Power/setting mode, 3) Sn, light/dark, 4) Optical axis, 5) rotatable 270°, 6) Alignment good/limit area

BOS01FU, BOS016L, BOS016F



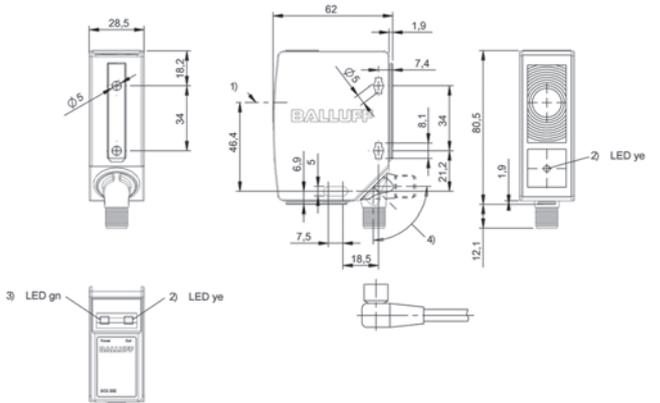
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis, 5) rotatable 270°, 6) Alignment good/limit area

BOS01FP



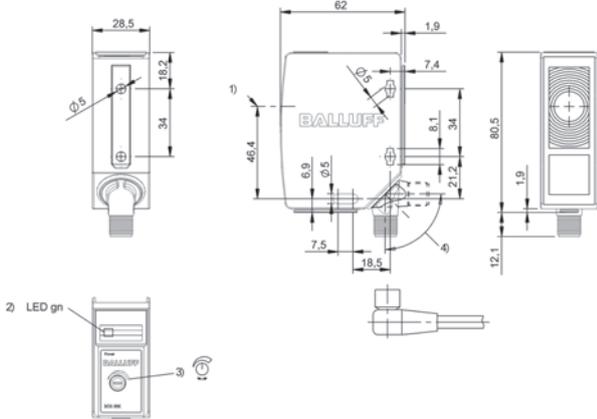
1) Alignment mode active, 2) Power/alignment mode active, 3) Alignment mode on/off, 4) Optical axis, 5) rotatable 270°

BOS016K, BOS016E



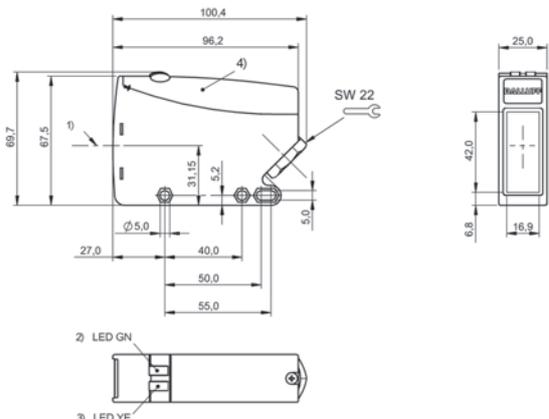
1) Optical axis receiver, 2) Light reception, 3) Operating voltage, 4) rotatable 270°

BOS01CK



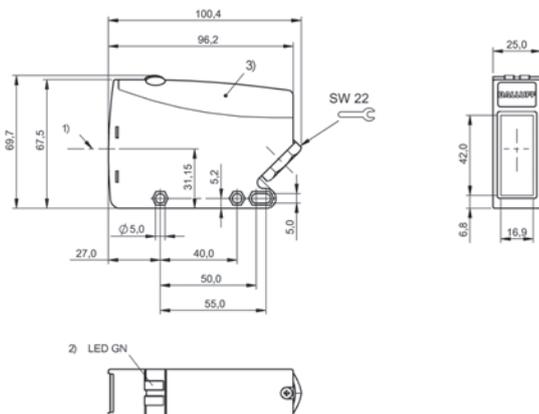
1) Optical axis emitter, 2) Operating voltage, 3) Sn, 4) rotatable 270°

BOS01CN



1) Optical axis, 2) Stability, 3) Output function, 4) Removable cover

BOS01K4

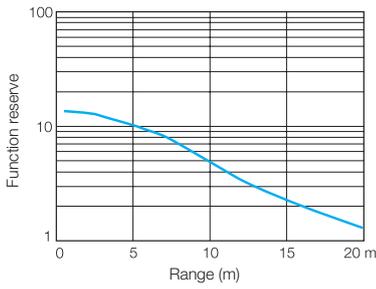


1) Optical axis, 2) Operating voltage, 3) Removable cover

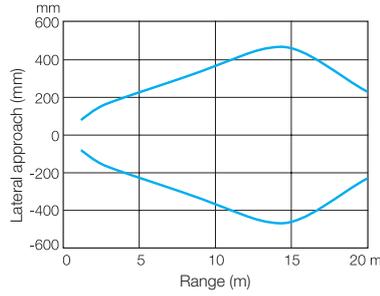
BOS01K5

Through-beam sensor BOS 5K-IX10-

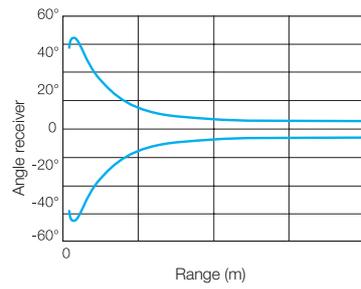
Receiving characteristics



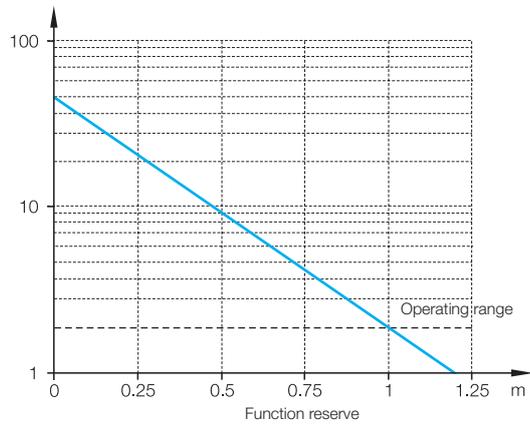
Characteristic response curve



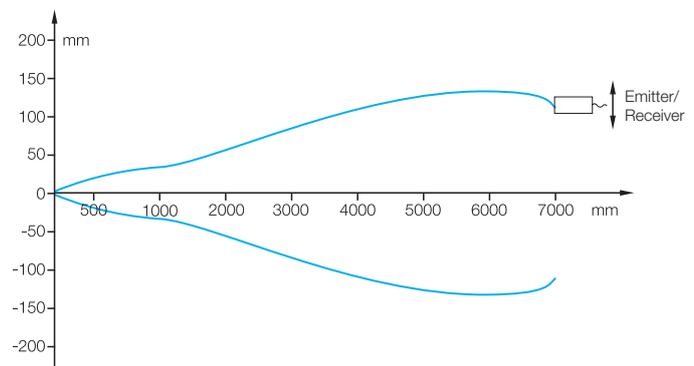
Angular Offset



Through-beam sensor BOS 2K

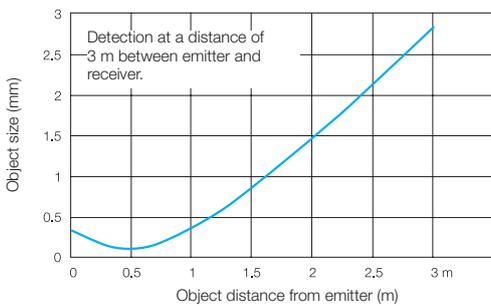


Through-beam sensor BLE/BLS 12M-...

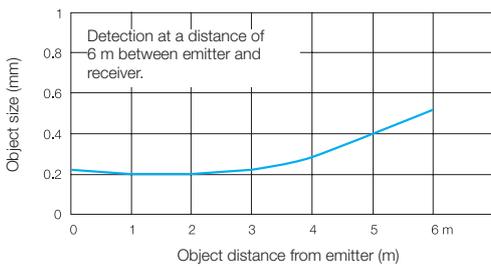


The maximum possible offset between the emitter and receiver is measured for the through-beam sensor.

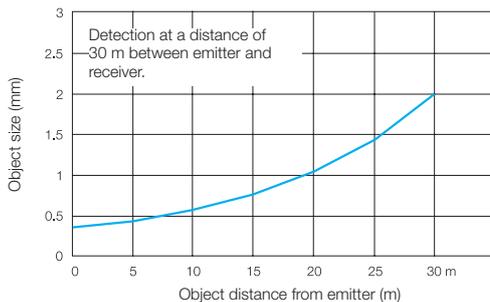
Through-beam sensor small parts detection BOS 12M-XT-LS11-..



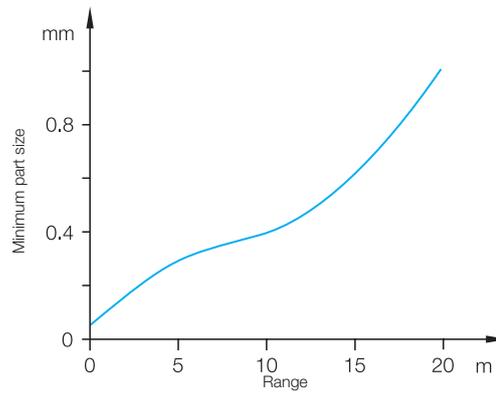
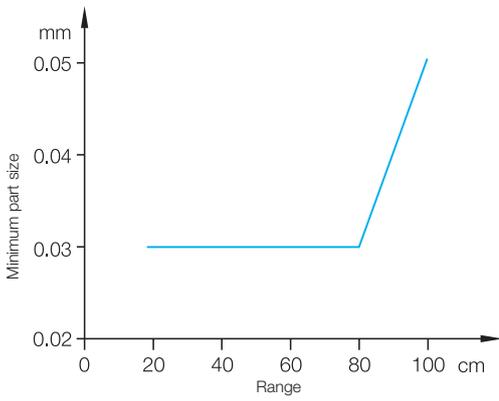
Through-beam sensor small parts detection BOS 12M-XT-LS12-..



Through-beam sensor small parts detection BOS 12M-XT-LS12-..

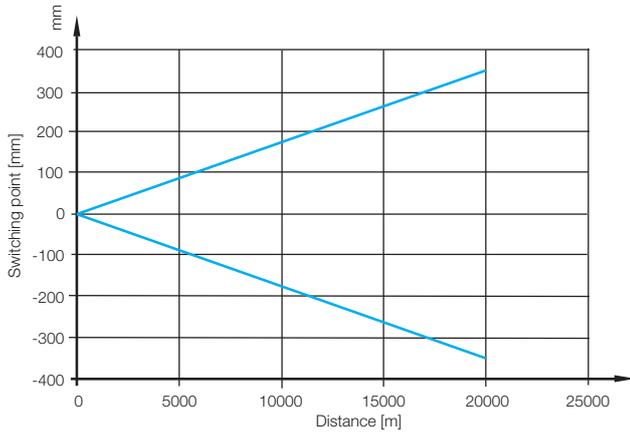


Accuracy diagram for BOS 18M laser through-beam sensor
Smallest detectable part size as a function of range.

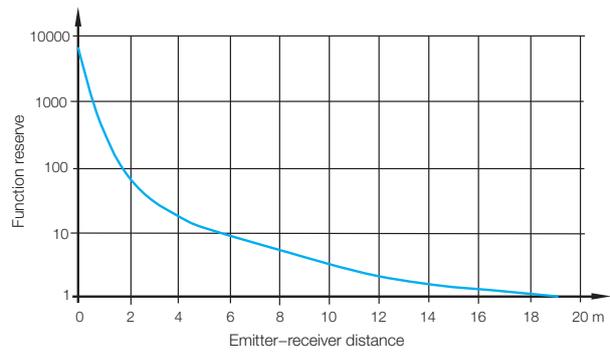


Light spot perpendicular to transport direction of the object.

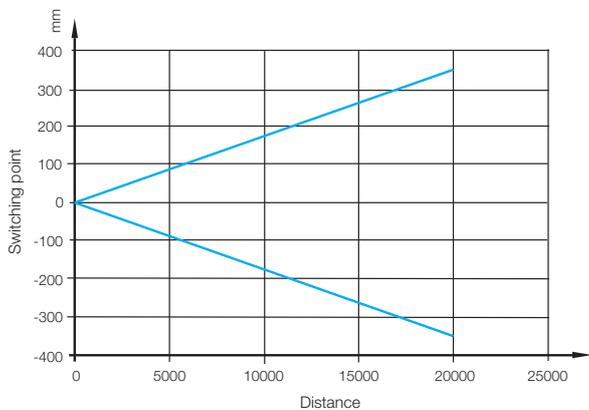
Through-beam sensor BOS 18M...RE/RS20
Response curve



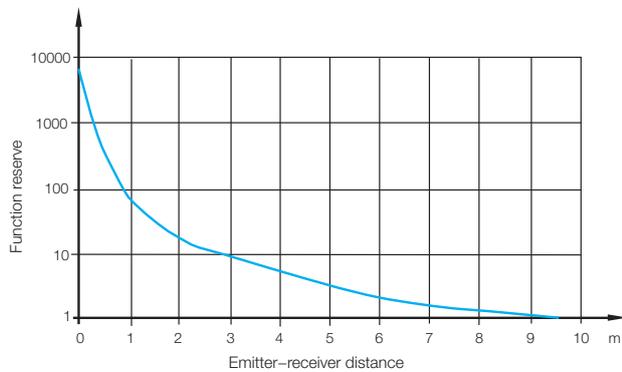
Through-beam sensor BOS 18M...RE/RS20
Function reserve



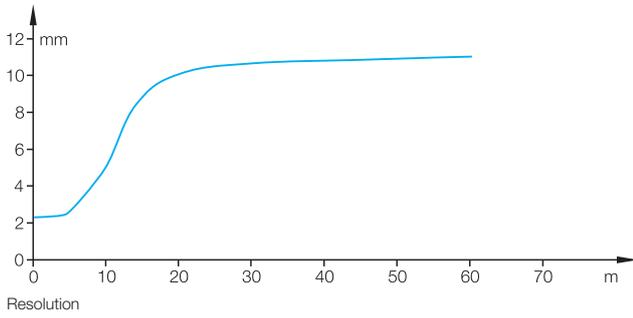
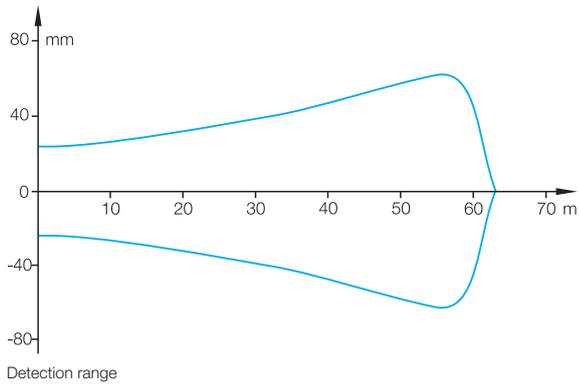
Through-beam sensor BOS 18M...RE/RS23
response curve



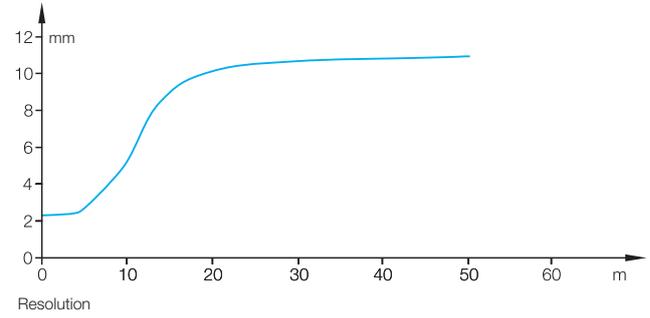
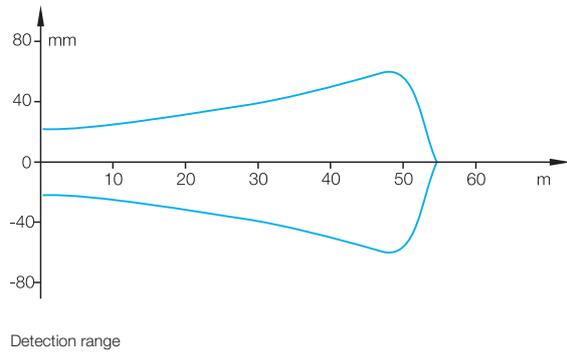
Through-beam sensor BOS 18M...RE/RS23
Function reserve



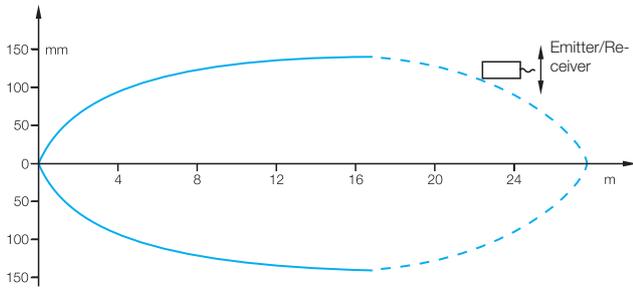
Through-beam sensor BOS 18M...-LE/LS10-...



Through-beam sensor BOS 18MR...-LE/LS10-...

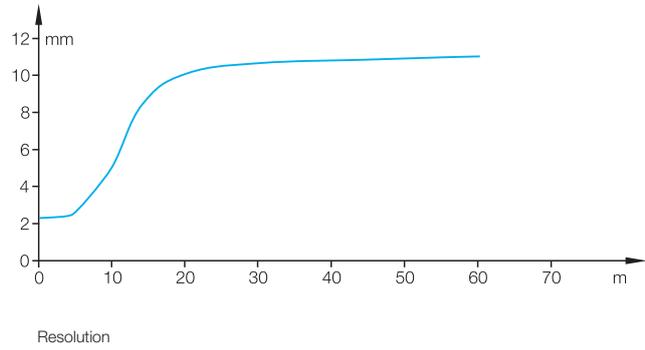
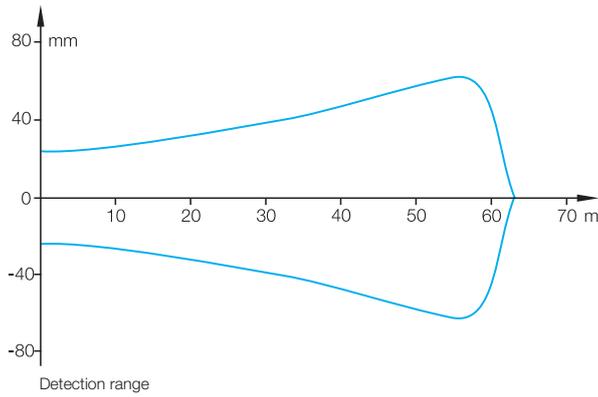


Through-beam BLE/BLS 18E-...

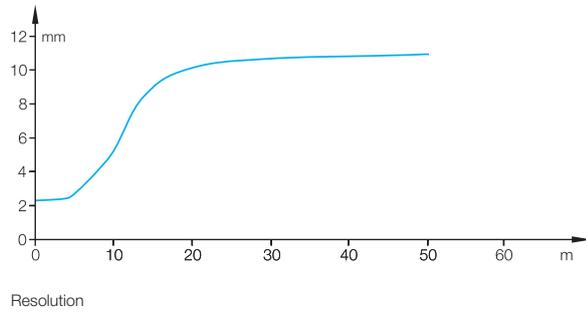
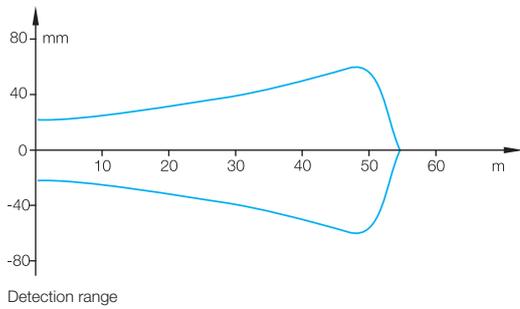


For a through-beam sensor, the maximum possible offset between the emitter and receiver is measured.

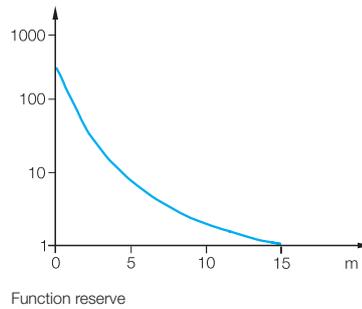
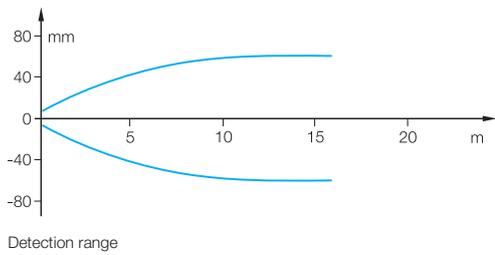
Through-beam sensor BLE/BLS 18KF--1LT--...



Through-beam sensor BLE/BLS 18KW--1LT--...



Through-beam BLE/BLS 18KW--1PP/1P--...





PNP normally open/normally closed			BGL0021 BGL 5A-007-S49	
PNP normally open/normally closed, NPN normally open/normally closed	BGL002L BGL 21-IR	BGL002M BGL 21-RG		
Series	21	21	A	
Dimension	20 x 26 x 90 mm	20 x 26 x 90 mm	10 x 25 x 54 mm	
Fork opening	2 mm	2 mm	5 mm	
Principle of operation	Fork sensor	Fork sensor	Fork sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Infrared	green light/red light	Infrared	
Light spot size	0.5 x 4 mm Light exit	0.5 x 4 mm Light exit	Ø 2.0 mm Light exit	
Connection	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 3-pin	
Housing material	Aluminum	Aluminum	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE	CE	CE, cULus, EAC	
Trademark	—	—	—	
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	BGL0005 BGL 10A-007-S49	BGL000Y BGL 20A-007-S49	BGL001F BGL 30A-007-S49	BGL003J BGL 30A-011-S49	BGL001T BGL 50A-007-S49
	A	A	A	A	A
	10 x 30 x 54 mm	10 x 40 x 58 mm	10 x 50 x 68 mm	10 x 50 x 68 mm	10 x 70 x 88 mm
	10 mm	20 mm	30 mm	30 mm	50 mm
	Fork sensor				
	Through-beam sensor				
	—	—	—	Water detection	—
	Divergent	Divergent	Divergent	Divergent	Divergent
	Infrared	Infrared	Infrared	Infrared	Infrared
	Ø 2.0 mm Light exit	Ø 2.0 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit
	Connector, M8x1 connector, 3-pin				
	Zinc, die-cast				
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC				
	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, EAC	CE, cULus, EAC
	—	—	—	—	—
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PNP normally open/normally closed	BGL0029 BGL 80A-007-S49	BGL003L BGL 80A-011-S49	BGL000F BGL 120A-007-S49	
Series	A	A	A	
Dimension	10 x 100 x 88 mm	10 x 100 x 88 mm	10 x 140 x 93 mm	
Fork opening	80 mm	80 mm	120 mm	
Principle of operation	Fork sensor	Fork sensor	Fork sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	Water detection	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Infrared	Infrared	Infrared	
Light spot size	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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	BGL000N BGL 180A-007-S49	BGL0014 BGL 220A-007-S49	BGL0019 BGL 30A-003-S49	BGL001M BGL 50A-003-S49	BGL0025 BGL 80A-003-S49
	A	A	A	A	A
	10 x 200 x 153 mm	10 x 240 x 153 mm	10 x 50 x 68 mm	10 x 70 x 88 mm	10 x 100 x 88 mm
	180 mm	220 mm	30 mm	50 mm	80 mm
	Fork sensor	Fork sensor	Fork sensor	Fork sensor	Fork sensor
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor
	—	—	—	—	—
	Divergent	Divergent	Collimated	Collimated	Collimated
	Infrared	Infrared	Laser red light	Laser red light	Laser red light
	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 0.3 mm Light exit	Ø 0.3 mm Light exit	Ø 0.3 mm Light exit
	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin
	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
	—	—	—	—	—
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PNP normally open/normally closed	BGL0009 BGL 120A-003-S49	BGL001Z BGL 5A-005-S49	BGL0003 BGL 10A-005-S49	
Series	A	A	A	
Dimension	10 x 140 x 93 mm	10 x 25 x 54 mm	10 x 30 x 54 mm	
Fork opening	120 mm	5 mm	10 mm	
Principle of operation	Fork sensor	Fork sensor	Fork sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	Collimated	Divergent	Divergent	
Light type	Laser red light	Red light	Red light	
Light spot size	Ø 0.3 mm Light exit	Ø 1.0 mm Light exit	Ø 1.0 mm Light exit	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	cULus, CE, EAC	cULus, CE, EAC	
Trademark	—	—	—	
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	BGL000U BGL 20A-005-S49	BGL001C BGL 30A-005-S49	BGL001P BGL 50A-005-S49	BGL0027 BGL 80A-005-S49	BGL000C BGL 120A-005-S49
	A	A	A	A	A
	10 x 40 x 58 mm	10 x 50 x 68 mm	10 x 70 x 88 mm	10 x 100 x 88 mm	10 x 140 x 93 mm
	20 mm	30 mm	50 mm	80 mm	120 mm
	Fork sensor				
	Through-beam sensor				
	—	—	—	—	—
	Divergent	Divergent	Divergent	Divergent	Divergent
	Red light				
	Ø 1.0 mm Light exit	Ø 1.0 mm Light exit	Ø 1.5 mm Light exit	Ø 2.0 mm Light exit	Ø 2.5 mm Light exit
	Connector, M8x1 connector, 3-pin				
	Zinc, die-cast				
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC				
	cULus, CE, EAC				
	—	—	—	—	—
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PNP normally open/normally closed	BGL000L BGL 180A-005-S49	BGL0012 BGL 220A-005-S49	BGL001W BGL 5A-001-S49	
Series	A	A	A	
Dimension	10 x 200 x 153 mm	10 x 240 x 153 mm	10 x 25 x 54 mm	
Fork opening	180 mm	220 mm	5 mm	
Principle of operation	Fork sensor	Fork sensor	Fork sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Red light	Red light	LED, red light	
Light spot size	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 1.0 mm Light exit	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC	cULus, CE, EAC	CE, cULus, EAC	
Trademark	—	—	Global	
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	BGL0001 BGL 10A-001-S49	BGL000R BGL 20A-001-S49	BGL0016 BGL 30A-001-S49	BGL001J BGL 50A-001-S49	BGL0023 BGL 80A-001-S49
	A	A	A	A	A
	10 x 30 x 54 mm	10 x 40 x 58 mm	10 x 50 x 68 mm	10 x 70 x 88 mm	10 x 100 x 88 mm
	10 mm	20 mm	30 mm	50 mm	80 mm
	Fork sensor				
	Through-beam sensor				
	—	—	—	—	—
	Divergent	Divergent	Divergent	Divergent	Divergent
	LED, red light				
	Ø 1.2 mm Light exit	Ø 1.0 mm Light exit	Ø 1.2 mm Light exit	Ø 1.5 mm Light exit	Ø 2.0 mm Light exit
	Connector, M8x1 connector, 3-pin				
	Zinc, die-cast				
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC				
	CE, cULus, EAC				
	Global	Global	Global	Global	Global
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IO-Link, normally open/normally closed				
PNP normally open/normally closed	BGL0007 BGL 120A-001-S49	BGL000J BGL 180A-001-S49	BGL0010 BGL 220A-001-S49	
PNP normally open/normally closed, analog, voltage 0...10 V				
PNP normally open/normally closed, analog, current 4...20 mA				
Series	A	A	A	
Dimension	10 x 140 x 93 mm	10 x 200 x 153 mm	10 x 25 x 54 mm	
Fork opening	120 mm	180 mm	220 mm	
Principle of operation	Fork sensor	Fork sensor	Fork sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	Global	Global	Global	
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	BGL0035 BGL 30C-007-S4	BGL003F BGL 50C-007-S4			
				BGL0033 BGL 30C-005-S4	
			BGL0031 BGL 30C-003-S4		BGL0039 BGL 50C-003-S4
	C	C	C	C	C
	18 x 80 x 93.5 mm	18 x 100 x 93.5 mm	18 x 80 x 93.5 mm	18 x 80 x 93.5 mm	18 x 100 x 93.5 mm
	30 mm	50 mm	30 mm	30 mm	50 mm
	Fork sensor				
	Through-beam sensor				
	Light array				
	Divergent	Divergent	Divergent	Divergent	Divergent
	LED, red light				
	3 x 28 mm Light exit				
	Connector, M12x1 connector, 4-pin				
	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	PMMA	PMMA	PMMA	PMMA	PMMA
	18...30 VDC				
	CE	CE	CE	CE	CE
	—	—	—	—	—
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Sensors

RFID

Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

Safety

Industrial Networking

Power Supply

Connectivity

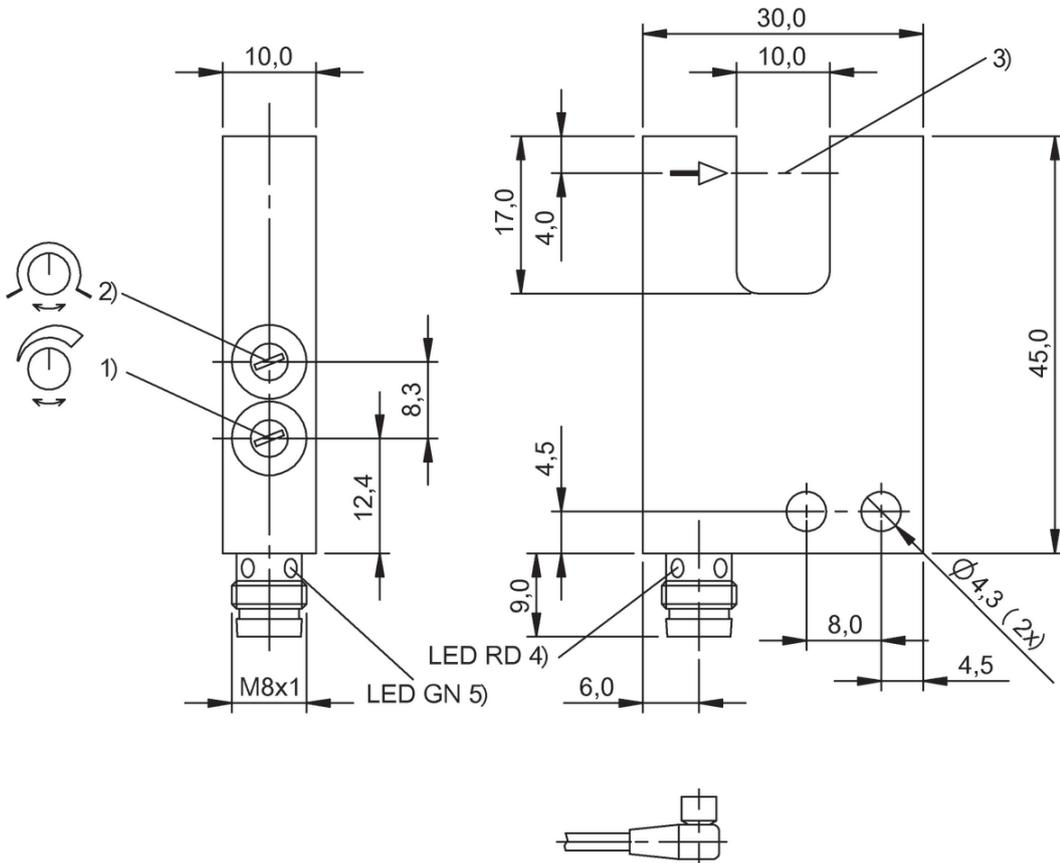
Accessories



2 × PNP normally open/normally closed		BGL002Z BGL 30C-001-S4	BGL0037 BGL 50C-001-S4	
PNP normally open/normally closed, analog, voltage 0...10 V	BGL003C BGL 50C-005-S4			
Series	C	C	C	
Dimension	18 x 100 x 93.5 mm	18 x 80 x 93.5 mm	18 x 100 x 93.5 mm	
Fork opening	50 mm	30 mm	50 mm	
Principle of operation	Fork sensor	Fork sensor	Fork sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	Light array	Light array	Light array	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	3 x 28 mm Light exit	3 x 28 mm Light exit	3 x 28 mm Light exit	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	Aluminum	Aluminum	Aluminum	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	18...30 VDC	18...30 VDC	18...30 VDC	
Approval/Conformity	CE	CE	CE	
Trademark	—	—	—	
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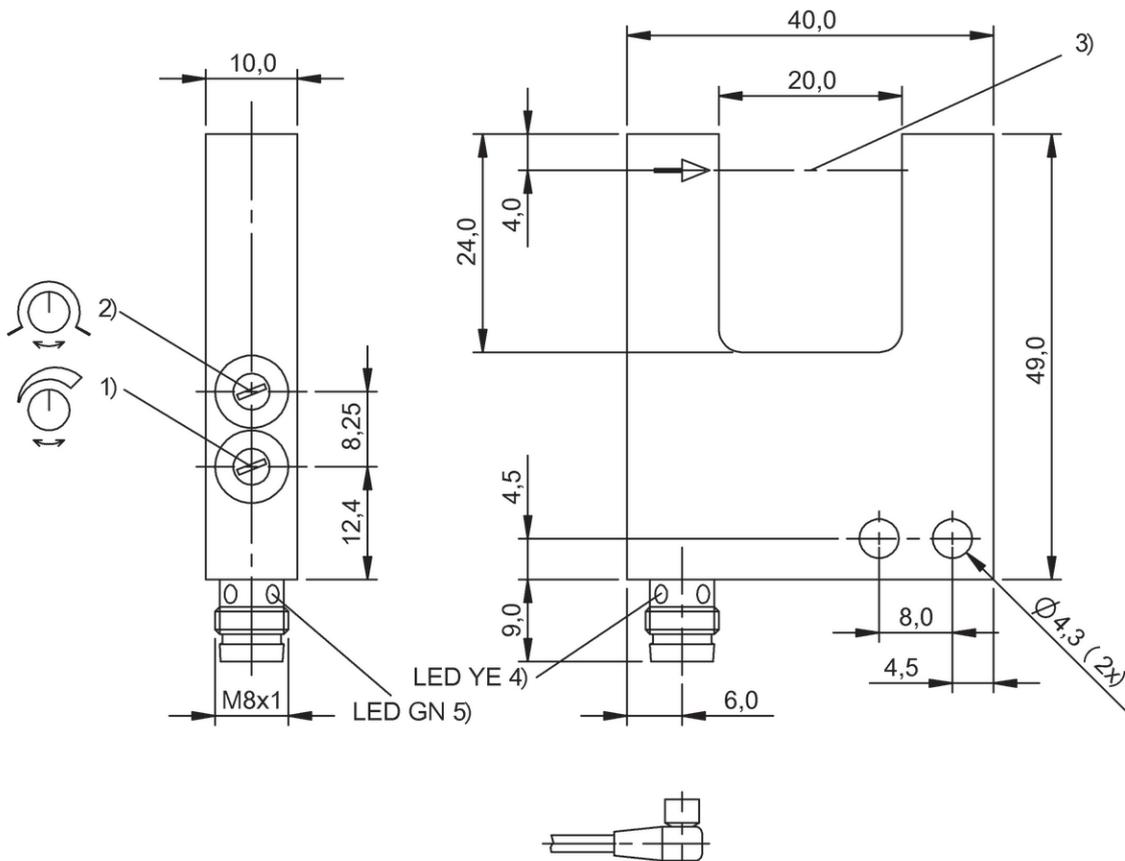


	BGL004M BGL 50F-007-00,2-S4	BGL004P BGL 80F-007-00,2-S4	BGL004L BGL 50F-001-00,2-S4	BGL004N BGL 80F-001-00,2-S4	
	F	F	F	F	
	12 x 85 x 86 mm	12 x 115 x 86 mm	12 x 85 x 86 mm	12 x 115 x 86 mm	
	50 mm	80 mm	50 mm	80 mm	
	Fork sensor	Fork sensor	Fork sensor	Fork sensor	
	Fork sensor	Fork sensor	Fork sensor	Fork sensor	
	—	—	—	—	
	Divergent	Divergent	Divergent	Divergent	
	Infrared	Infrared	LED, red light	LED, red light	
	Ø 2.0 mm Light exit	Ø 2.5 mm Light exit	Ø 1.25 mm Light exit	Ø 1.75 mm Light exit	
	Cable with connector, M12x1 connector, 4-pin, 0.25 m, PUR	Cable with connector, M12x1 connector, 4-pin, 0.25 m, PUR	Cable with connector, M12x1 connector, 4-pin, 0.25 m, PUR	Cable with connector, M12x1 connector, 4-pin, 0.25 m, PUR	
	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)	
	PMMA	PMMA	PMMA	PMMA	
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
	CE, Ecolab	CE, Ecolab	Ecolab, CE	Ecolab, CE	
	—	—	—	—	
	Page 488	Page 489	Page 488	Page 489	



1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function, 5) Operating voltage

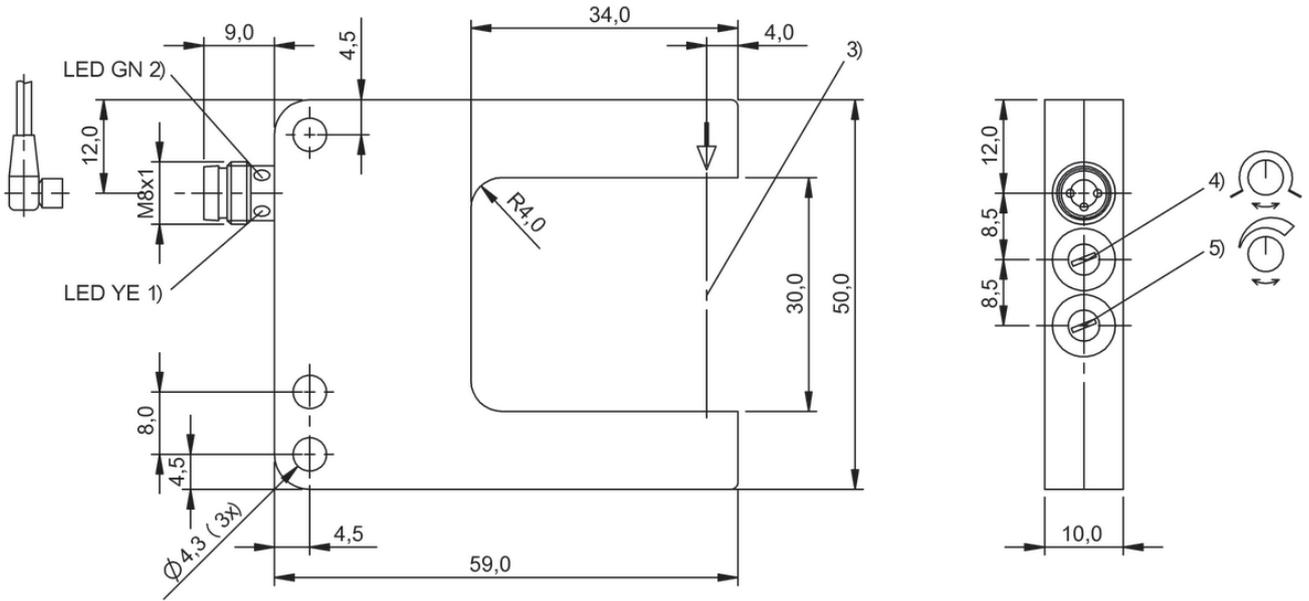
BGL0005



1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function, 5) Operating voltage

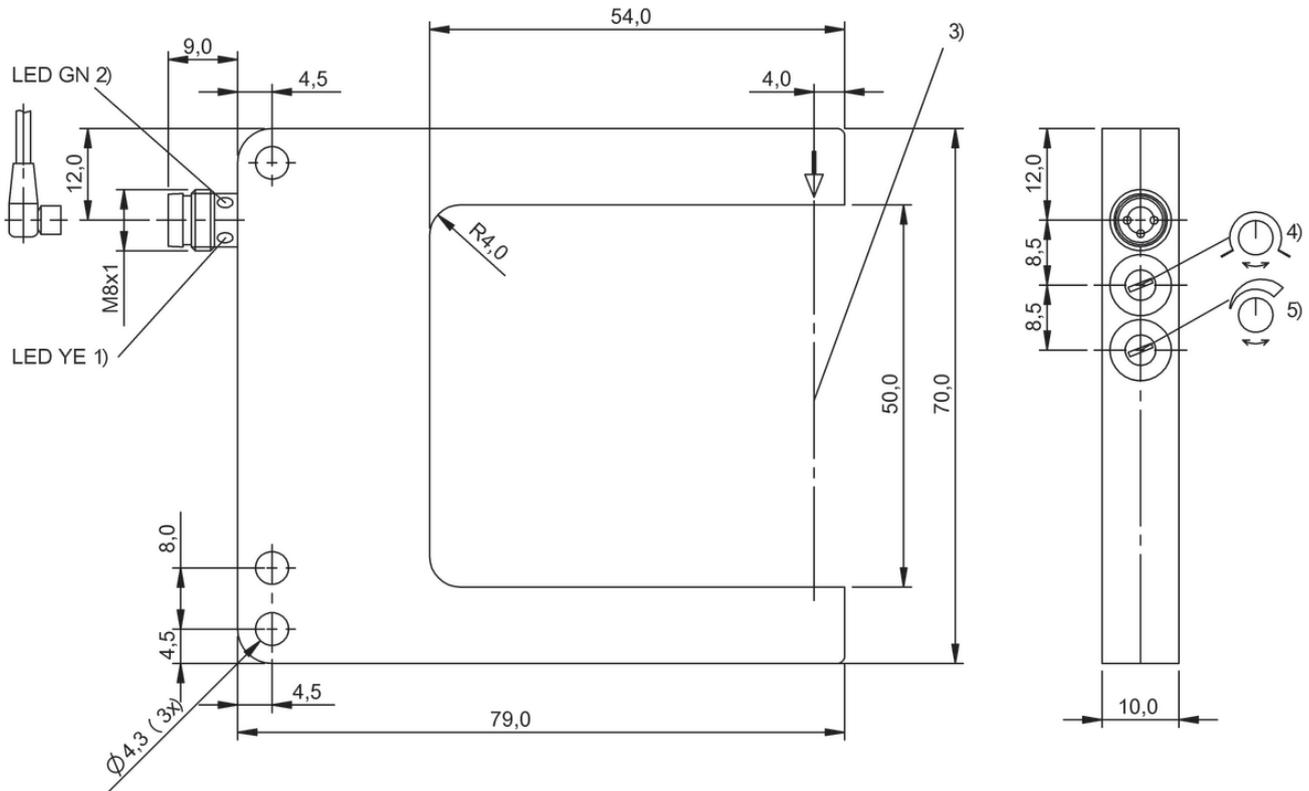
BGL000Y

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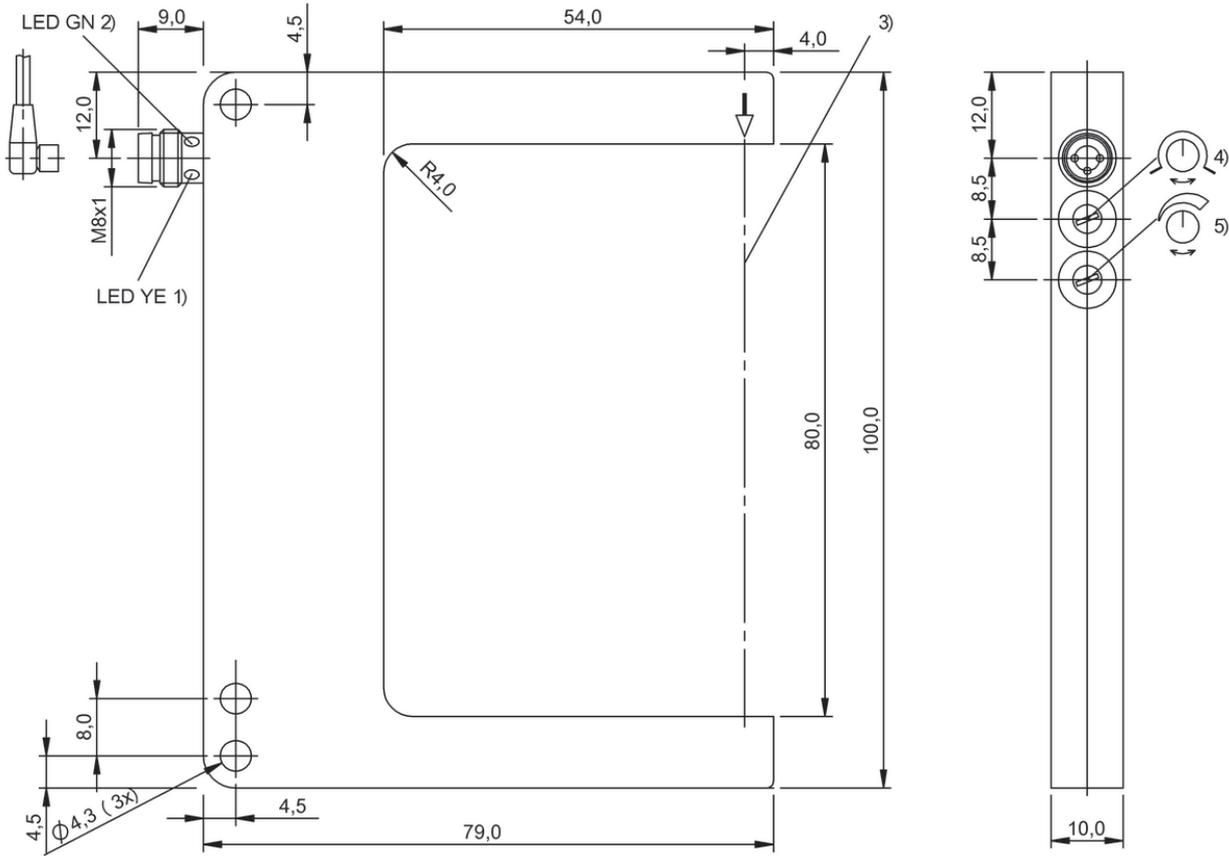
1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

BGL001F, BGL003J



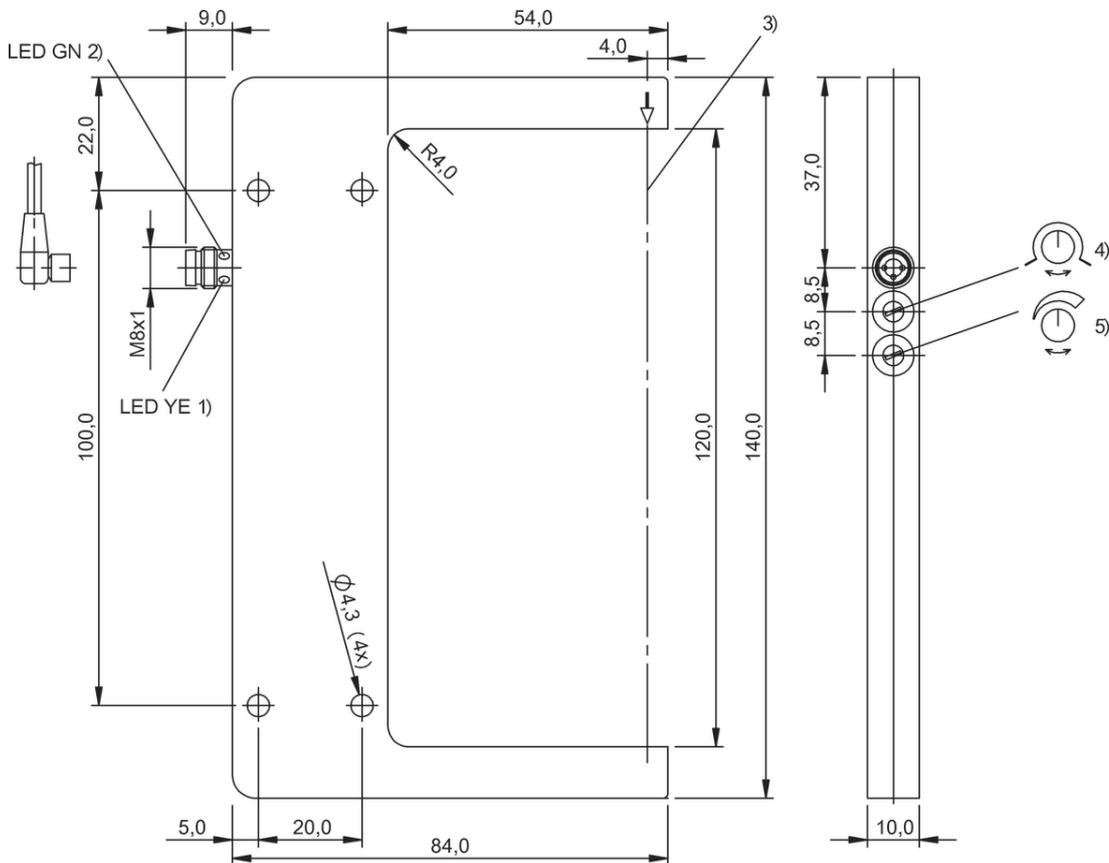
1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

BGL001T



1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

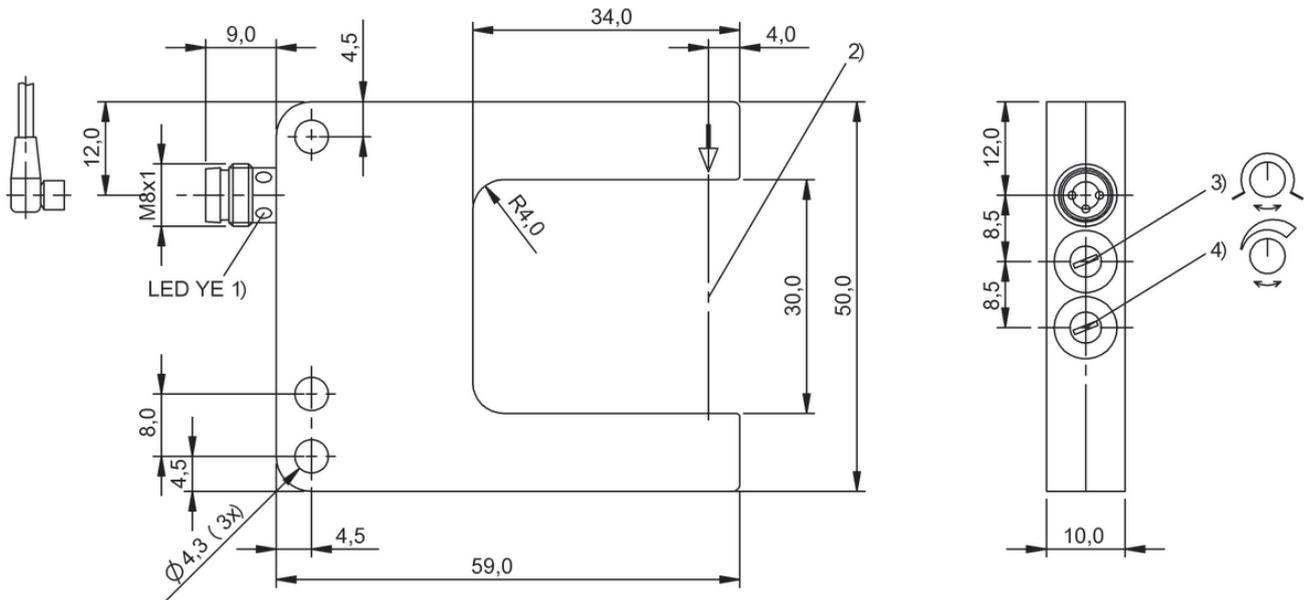
BGL0029, BGL003L



1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

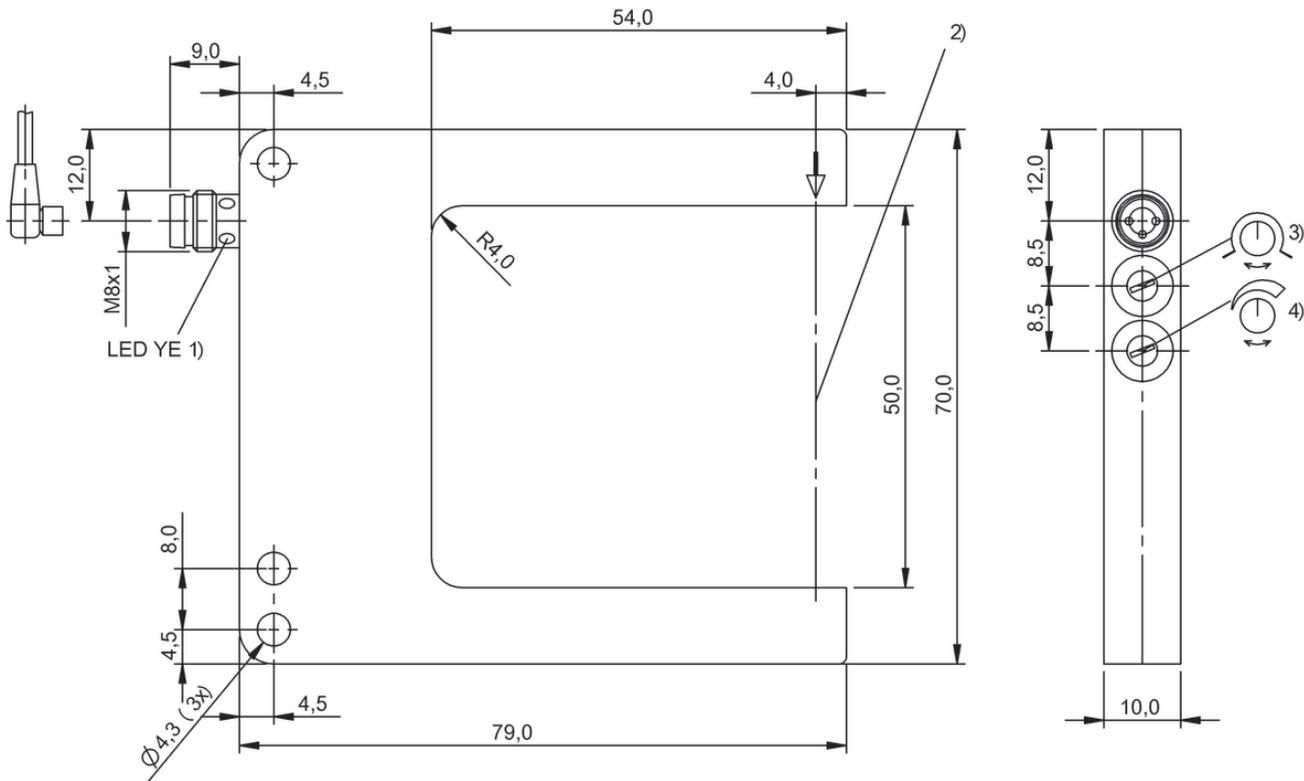
BGL000F

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1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

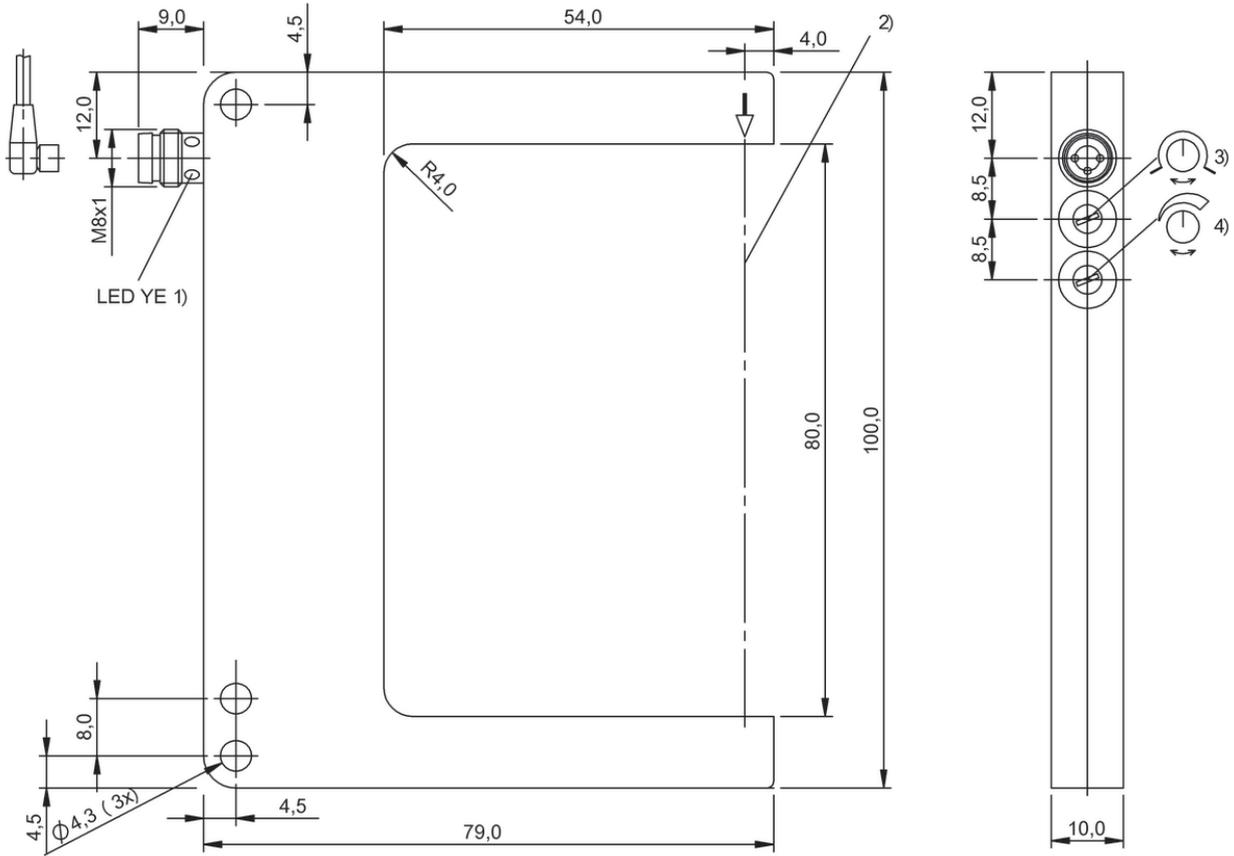
BGL0019, BGL001C, BGL0016



1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

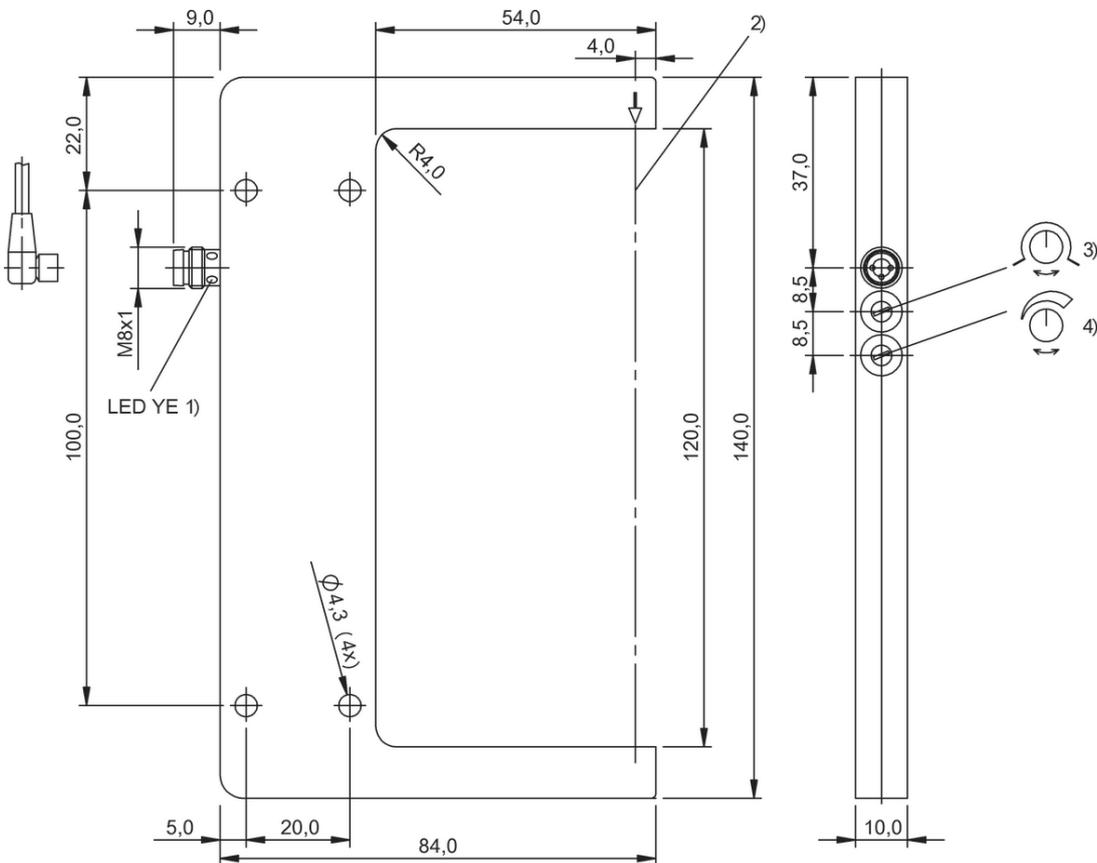
BGL001M, BGL001P, BGL001J

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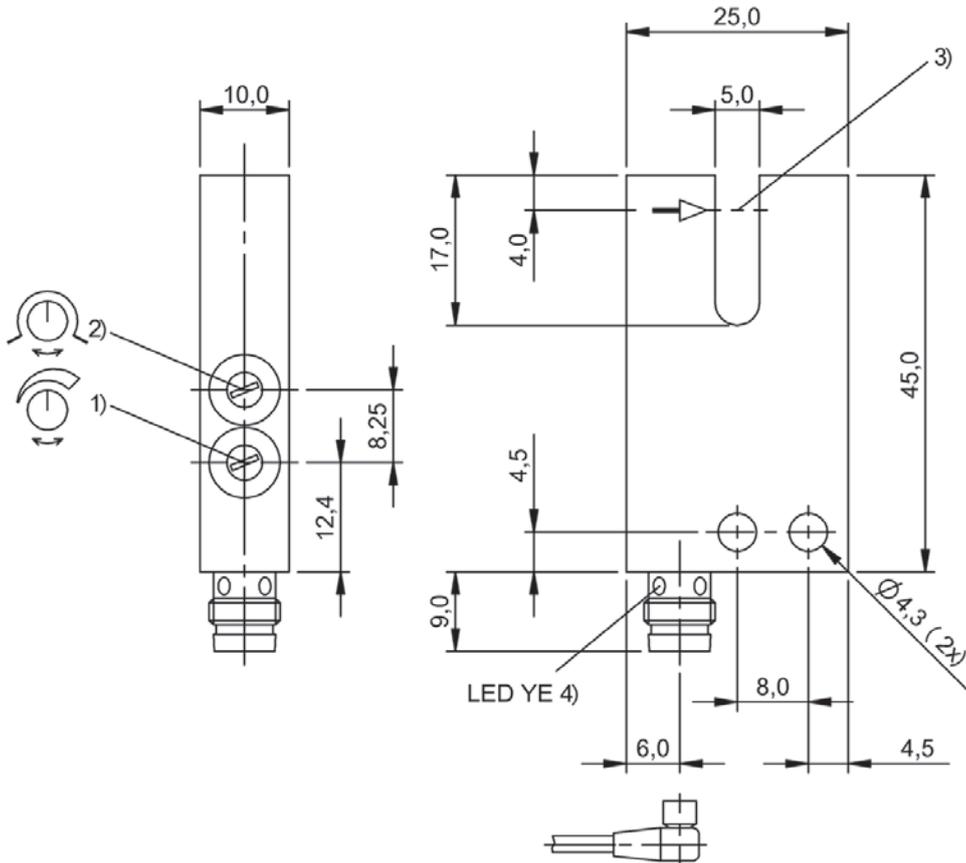
1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

BGL0025, BGL0027, BGL0023



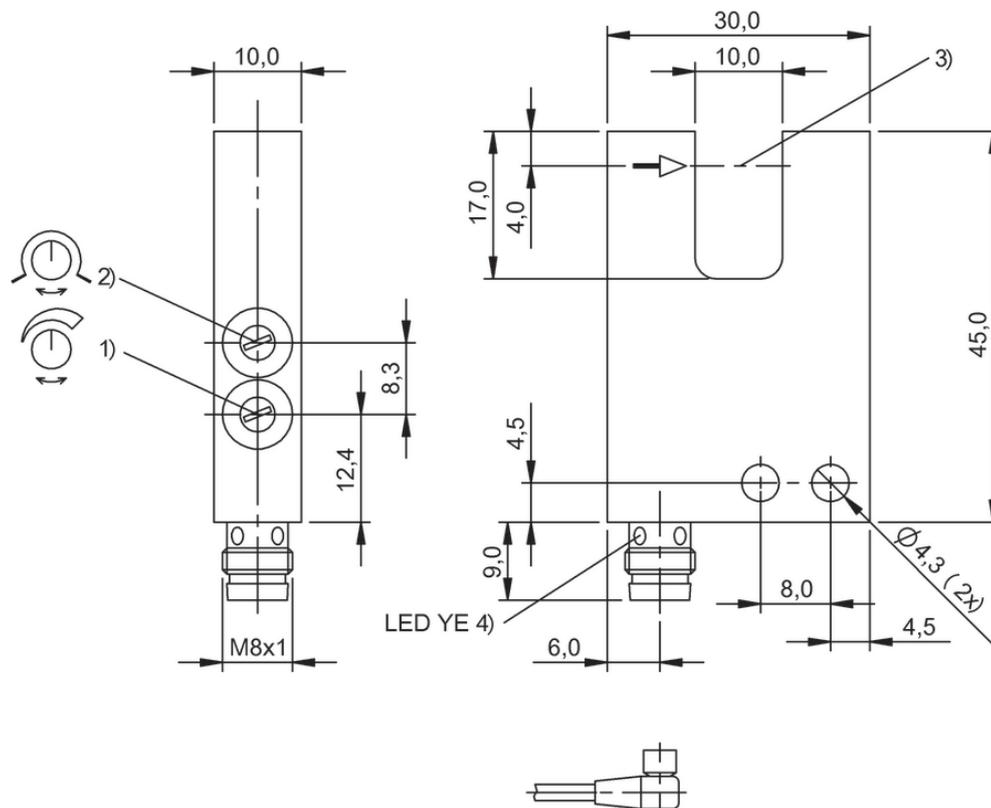
1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

BGL0009, BGL000C, BGL0007



1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function

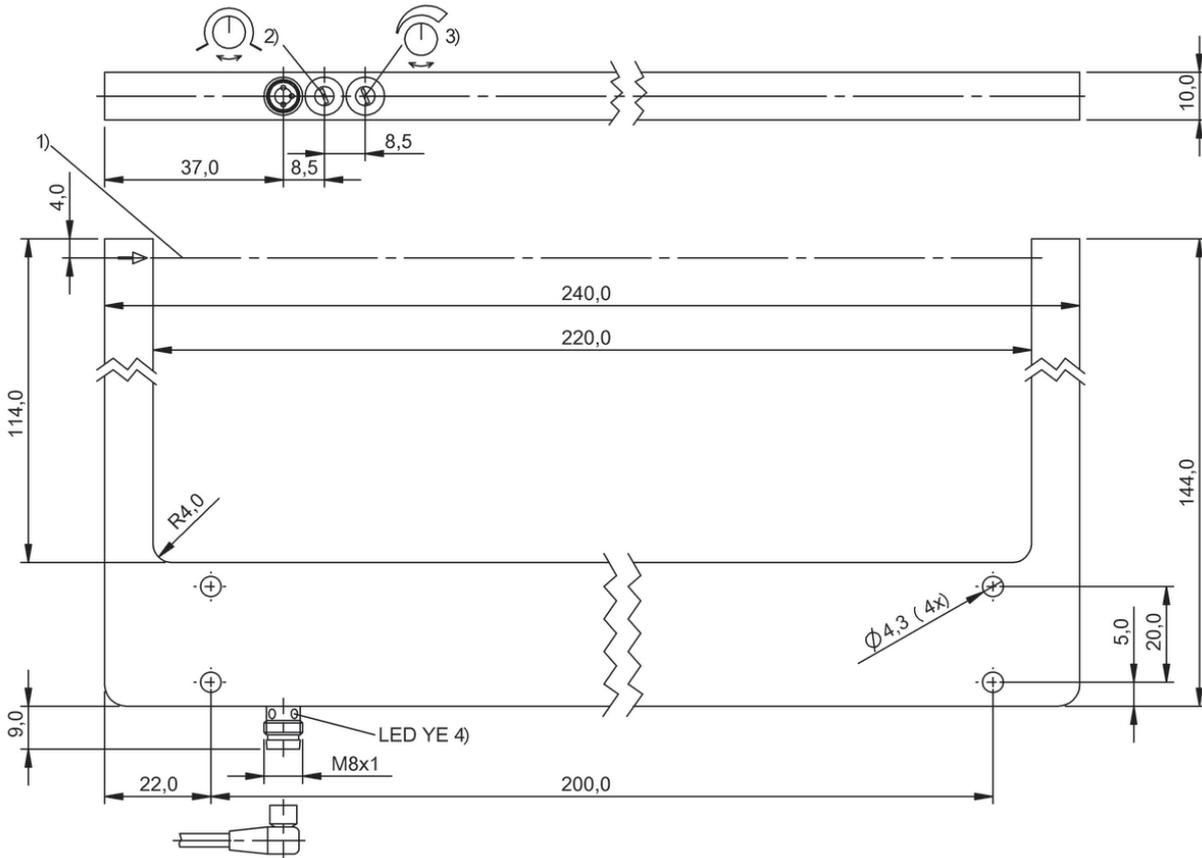
BGL001Z, BGL001W



1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function

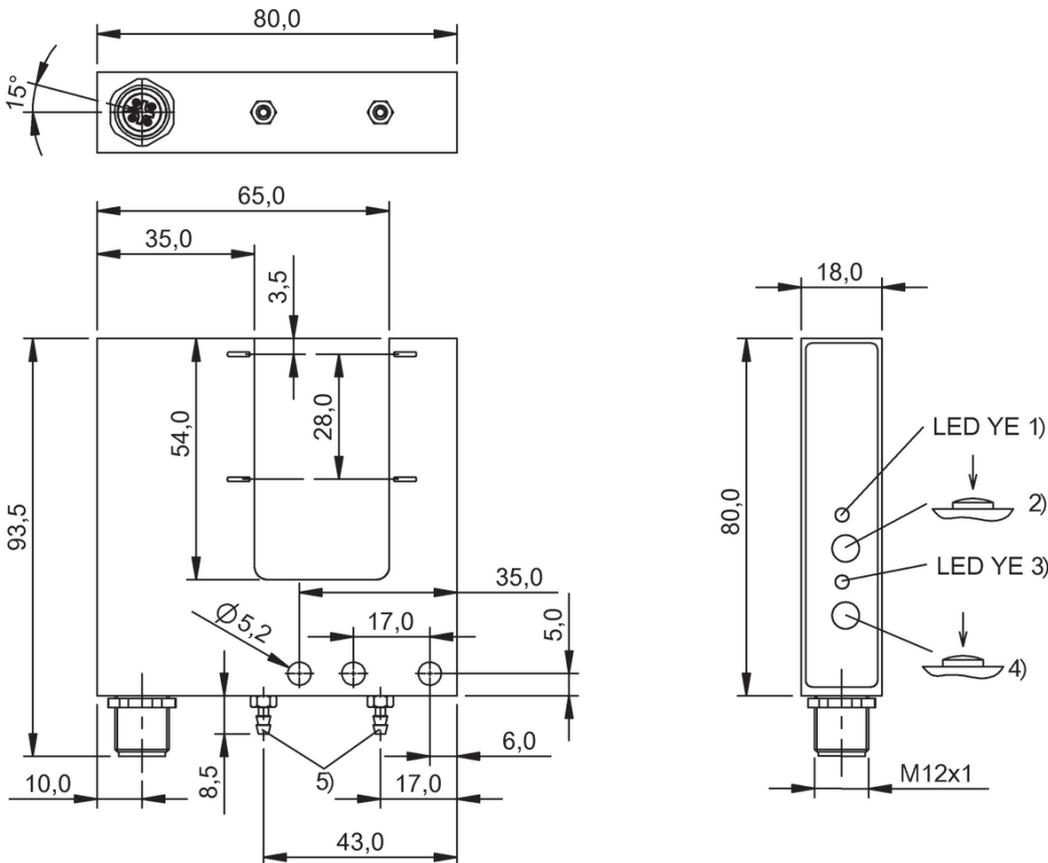
BGL0003, BGL0001

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1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function

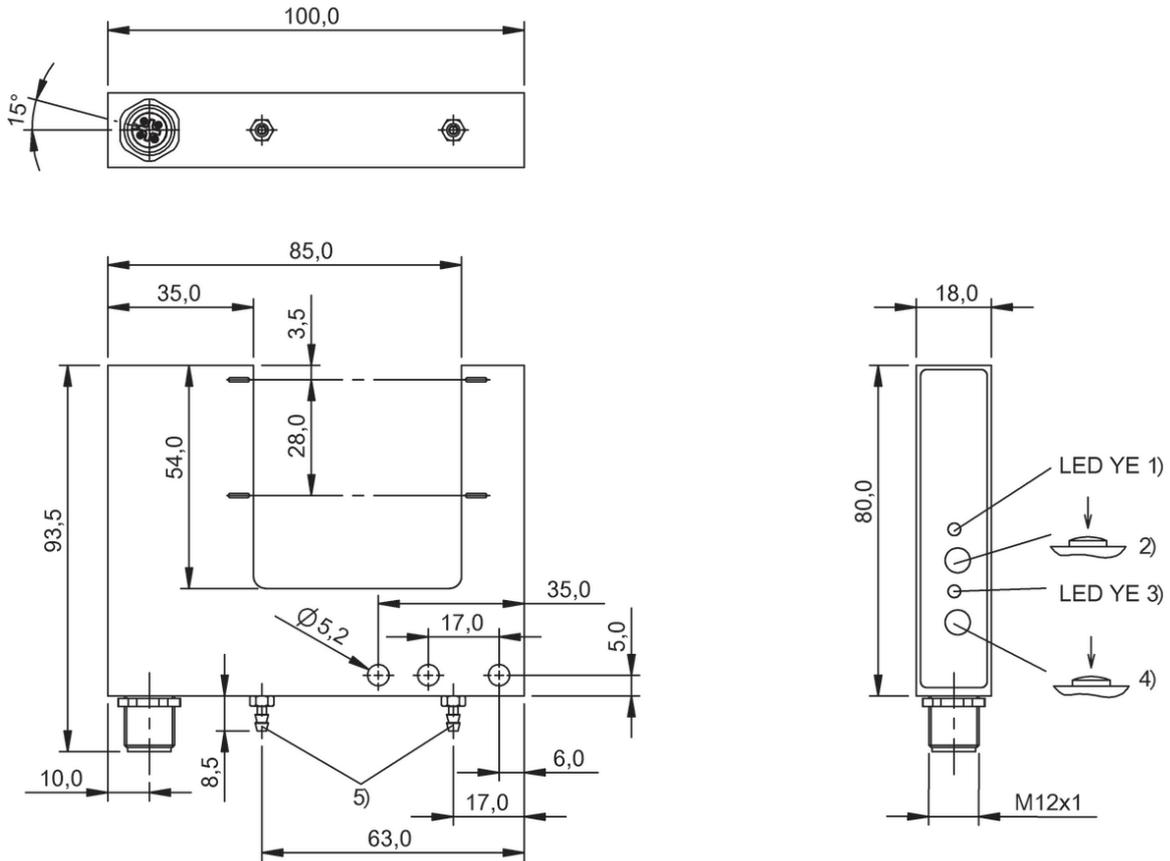
BGL0012, BGL0010



1) SP1 active / error, 2) SP1: recvr., light/dark, 3) SP2 active / error, 4) SP2: recvr., light/dark, 5) Pneumatics connection PK-3

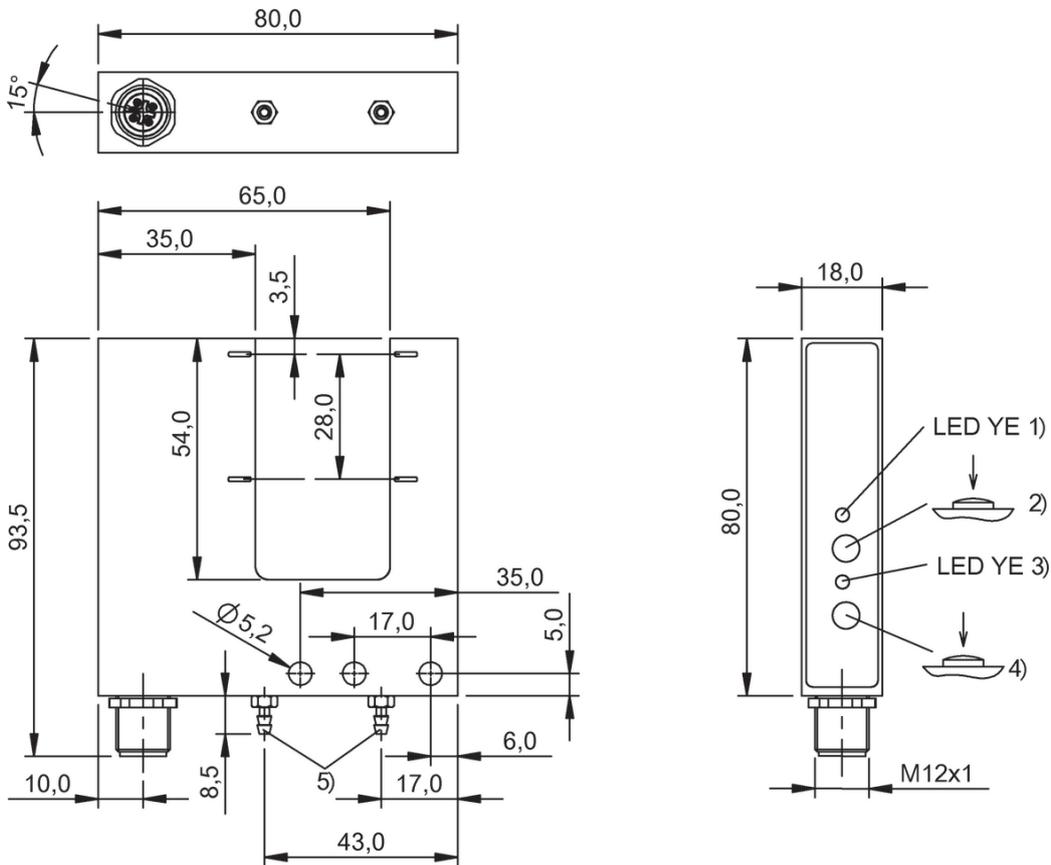
BGL0035

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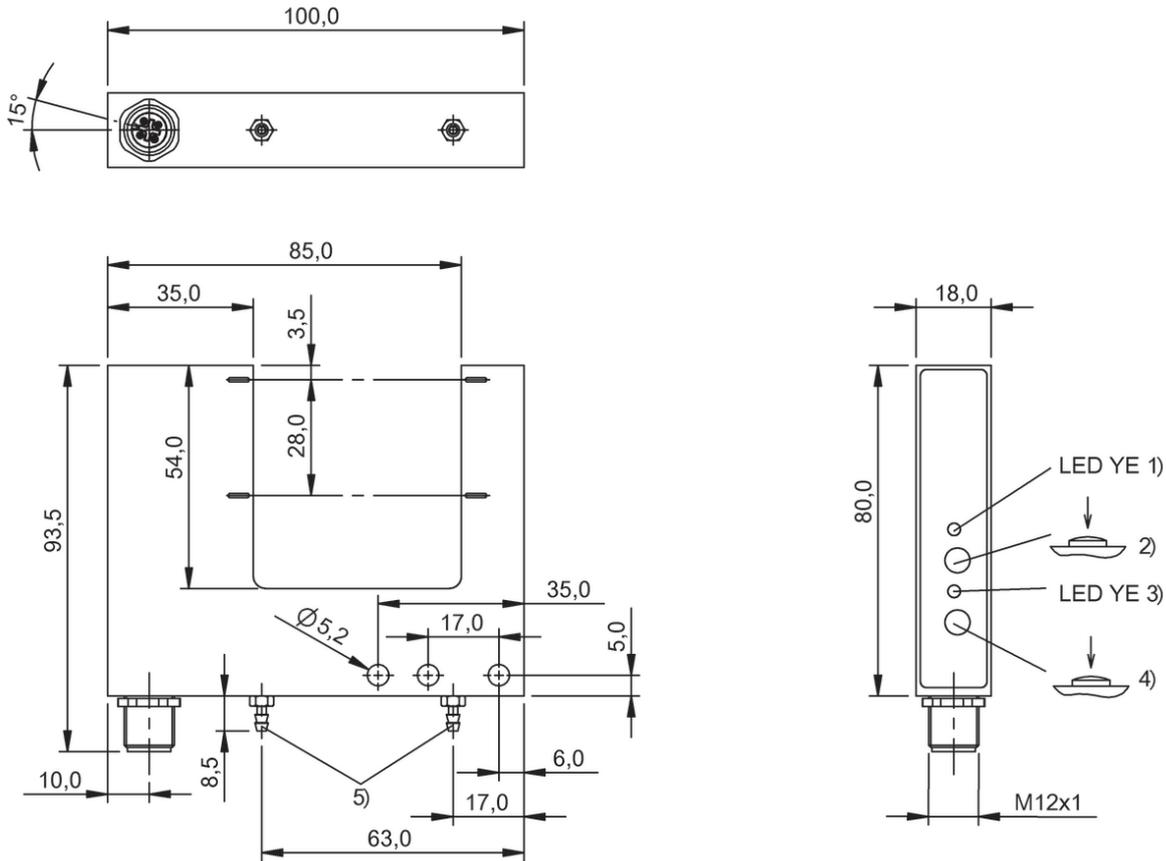
1) SP1 active / error, 2) SP1: recvr., light/dark, 3) SP2 active / error, 4) SP2: recvr., light/dark, 5) Pneumatics connection PK-3

BGL003F



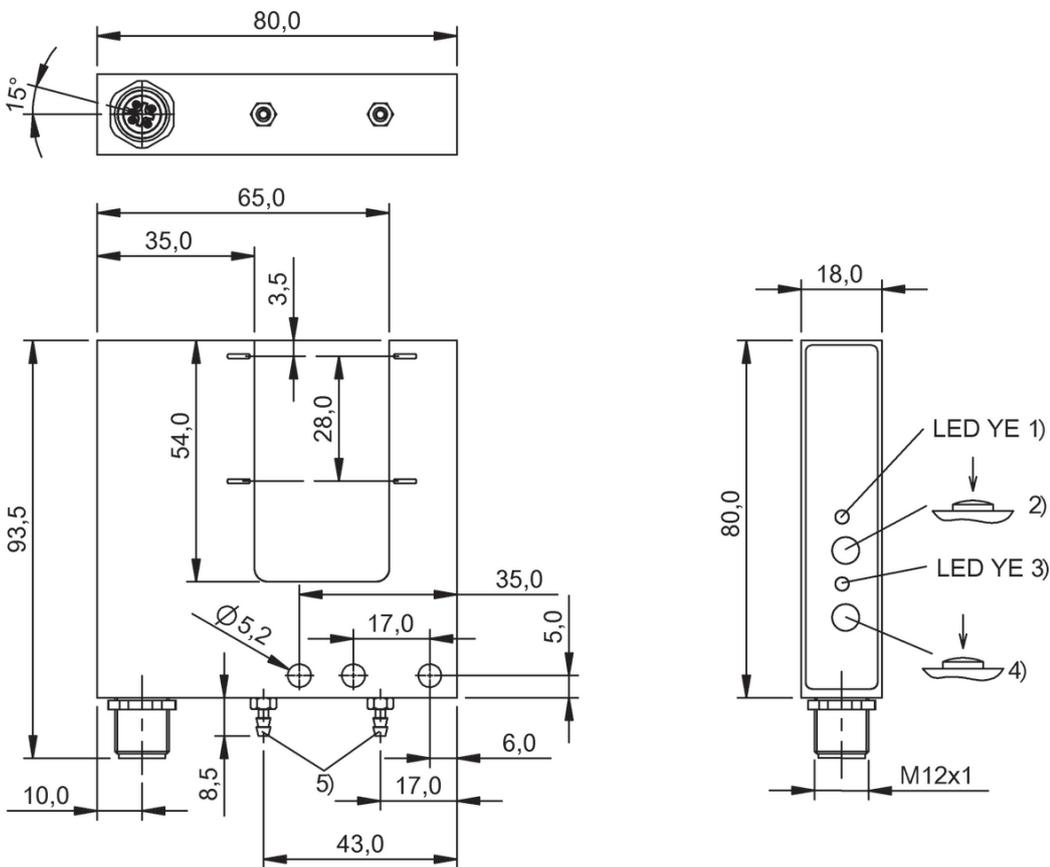
1) Output function/Error, 2) Output mode, recvr., L/D, 3) Error, 4) Output curve rising/falling, 5) Pneumatics connection PK-3

BGL0031, BGL0033



1) Output function/Error, 2) Output mode, recvr., L/D, 3) Error, 4) Output curve rising/falling, 5) Pneumatics connection PK-3

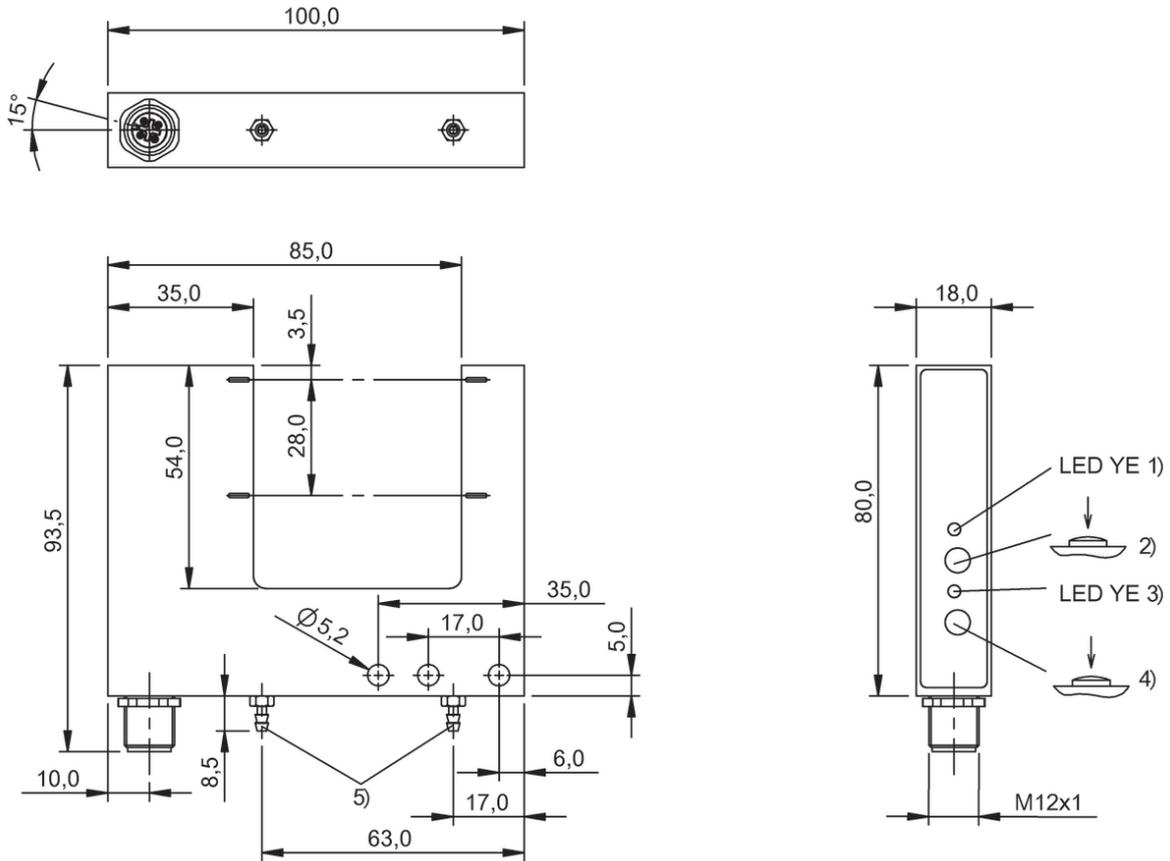
BGL0039, BGL003C



1) Q1 active / error, 2) Q1: recvr., light/dark, 3) Q2 active / error, 4) Q2: recvr., light/dark, 5) Pneumatics connection PK-3

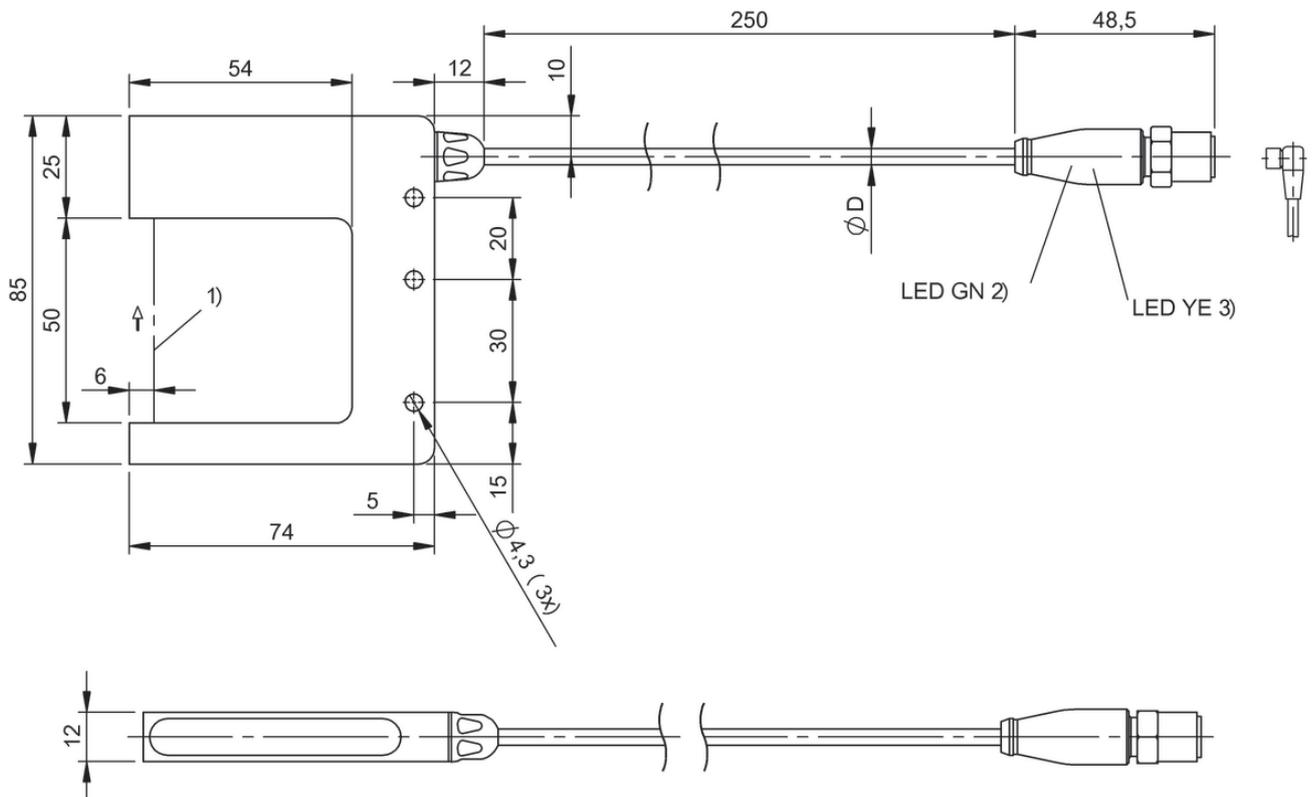
BGL002Z

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1) Q1 active / error, 2) Q1: recvr., light/dark, 3) Q2 active / error, 4) Q2: recvr., light/dark, 5) Pneumatics connection PK-3

BGL0037



1) Optical axis, 2) Operating voltage, 3) Output function normally open

BGL004M, BGL004L



PNP normally open/normally closed	BWL0009 BWL 4040D-I011-S49	BWL000L BWL 5454D-I011-S49	BWL000Y BWL 6868D-I011-S49	
Series	D	D	D	
Dimension	10 x 75 x 84 mm	10 x 90 x 99 mm	10 x 105 x 114 mm	
Principle of operation	Angle sensor	Angle sensor	Angle sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Infrared	Infrared	Infrared	
Light spot size	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	CE, cULus	CE, cULus	
Trademark	—	—	—	
Productview	Page 496	Page 496	Page 497	



	BWL0015 BWL 9090D-I011-S49	BWL0001 BWL 110110D-I011-S49	BWL000C BWL 4040D-L011-S49	BWL000N BWL 5454D-L011-S49	BWL0010 BWL 6868D-L011-S49
	D	D	D	D	D
	12 x 125 x 134 mm	12 x 150 x 159 mm	10 x 75 x 84 mm	10 x 90 x 99 mm	10 x 105 x 114 mm
	Angle sensor	Angle sensor	Angle sensor	Angle sensor	Angle sensor
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor
	Divergent	Divergent	Collimated	Collimated	Collimated
	Infrared	Infrared	Laser red light	Laser red light	Laser red light
	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 0.2 mm Light exit	Ø 0.2 mm Light exit	Ø 0.2 mm Light exit
	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin
	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus	CE, cULus	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
	—	—	—	—	—
	Page 497	Page 498	Page 498	Page 499	Page 499



PNP normally open/normally closed	BWL0017 BWL 9090D-L011-S49	BWL0003 BWL 110110D-L011-S49	BWL000J BWL 4040D-R013-S49	
Series	D	D	D	
Dimension	12 x 125 x 134 mm	12 x 150 x 159 mm	10 x 75 x 84 mm	
Principle of operation	Angle sensor	Angle sensor	Angle sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Beam characteristic	Collimated	Collimated	Divergent	
Light type	Laser red light	Laser red light	Red light	
Light spot size	Ø 0.2 mm Light exit	Ø 0.2 mm Light exit	Ø 1.7 mm Light exit	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus	
Trademark	—	—	—	
Productview	Page 500	Page 500	Page 498	



	BWL000U BWL 5454D-R013-S49	BWL001N BWL 6868D-R013-S49	BWL001C BWL 9090D-R013-S49	BWL0007 BWL 110110D-R013-S49	BWL000F BWL 4040D-R011-S49
	D	D	D	D	D
	10 x 90 x 99 mm	10 x 105 x 114 mm	12 x 125 x 134 mm	12 x 150 x 159 mm	10 x 75 x 84 mm
	Angle sensor	Angle sensor	Angle sensor	Angle sensor	Angle sensor
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor
	Divergent	Divergent	Divergent	Divergent	Divergent
	Red light	Red light	Red light	Red light	LED, red light
	Ø 2.0 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 1.7 mm Light exit
	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin			
	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus, EAC
	—	—	—	—	Global
	Page 499	Page 499	Page 500	Page 500	Page 498

Sensors

RFID

Machine Vision and Optical Identification

Human Machine Interfaces

Systems

Safety

Industrial Networking

Power Supply

Connectivity

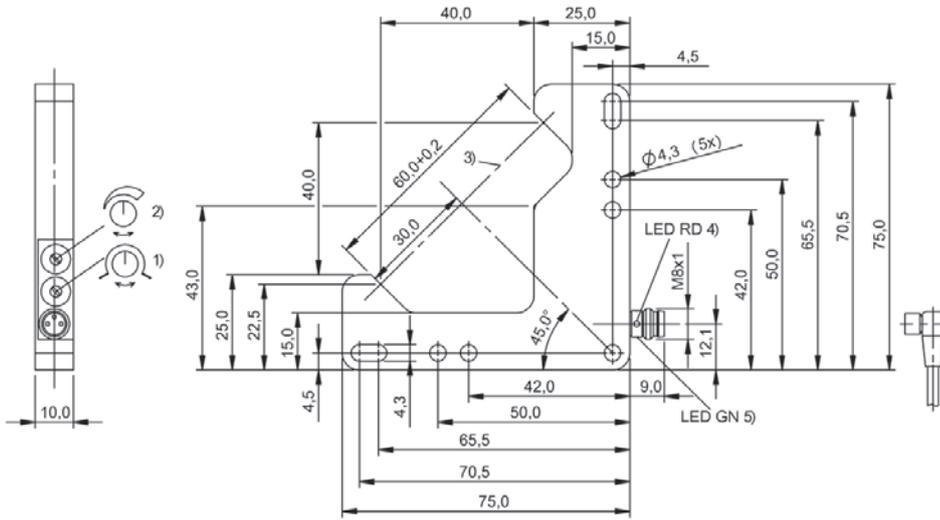
Accessories



PNP normally open/normally closed	BWL000R BWL 5454D-R011-S49	BWL0012 BWL 6868D-R011-S49	BWL0019 BWL 9090D-R011-S49	
Series	D	D	D	
Dimension	10 x 90 x 99 mm	10 x 105 x 114 mm	12 x 125 x 134 mm	
Principle of operation	Angle sensor	Angle sensor	Angle sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 2.0 mm Light exit	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	
Material sensing surface	Glass	Glass	Glass	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	Global	Global	Global	
Productview	Page 499	Page 499	Page 500	

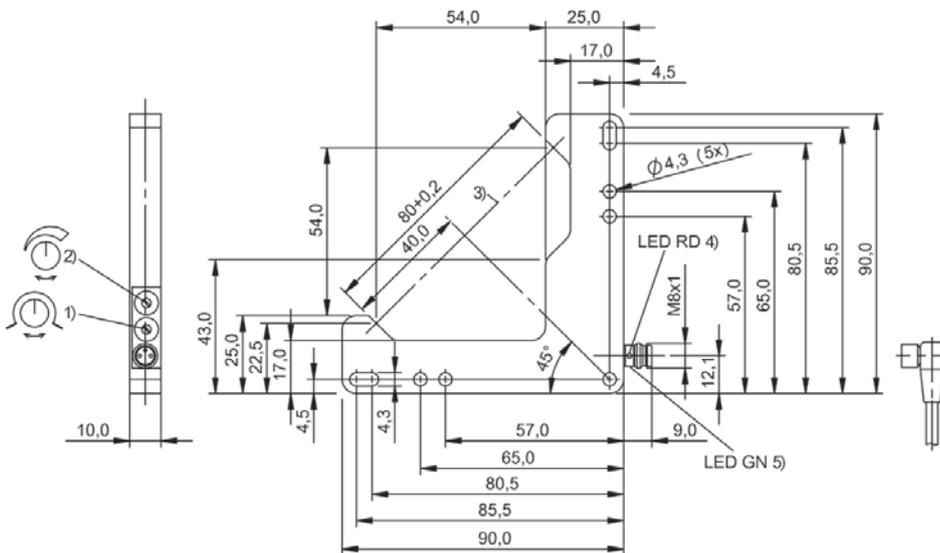


BWL0005 BWL 110110D-R011-S49				
D				
12 x 150 x 159 mm				
Angle sensor				
Through-beam sensor				
Divergent				
LED, red light				
Ø 2.5 mm Light exit				
Connector, M8x1 connector, 3-pin				
Zinc, die-cast				
Glass				
10...30 VDC				
CE, cULus, EAC				
Global				
Page 500				



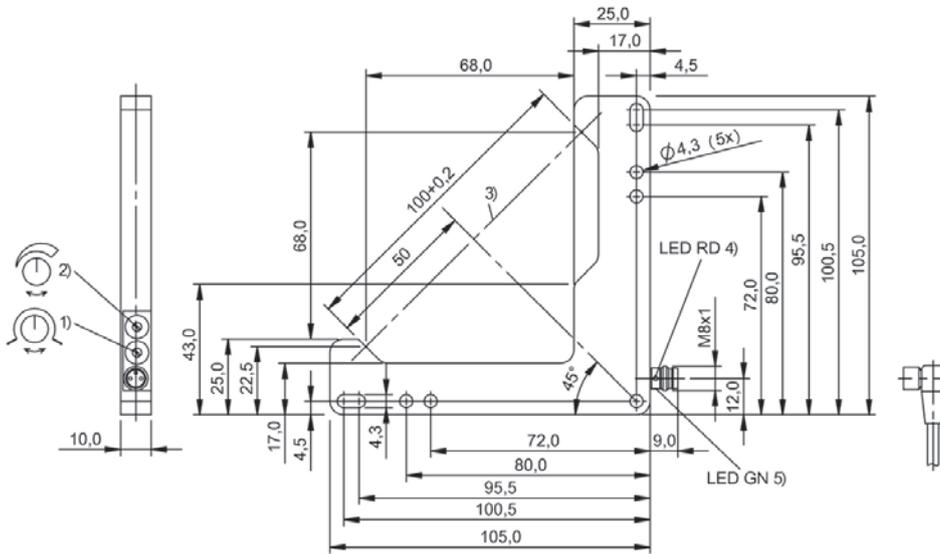
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL0009



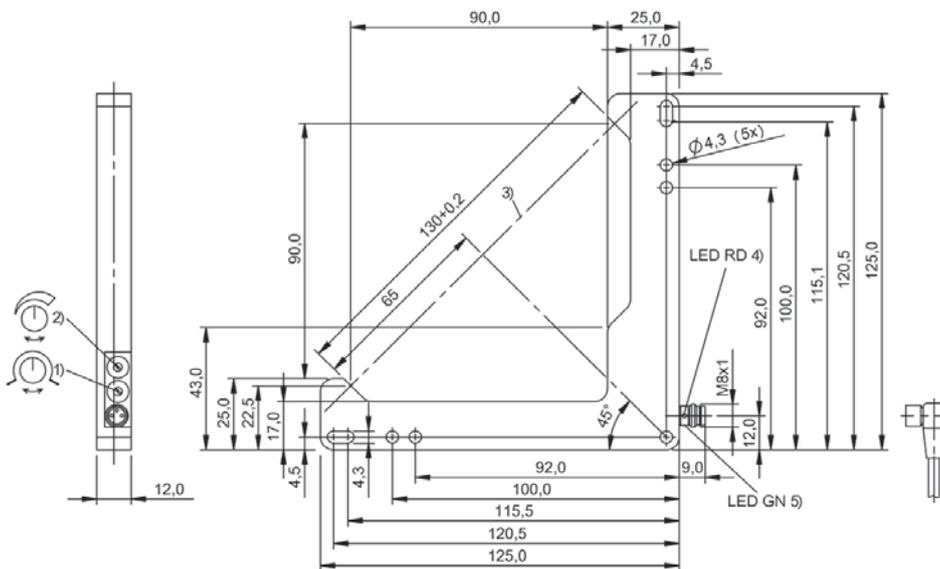
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL000L



1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

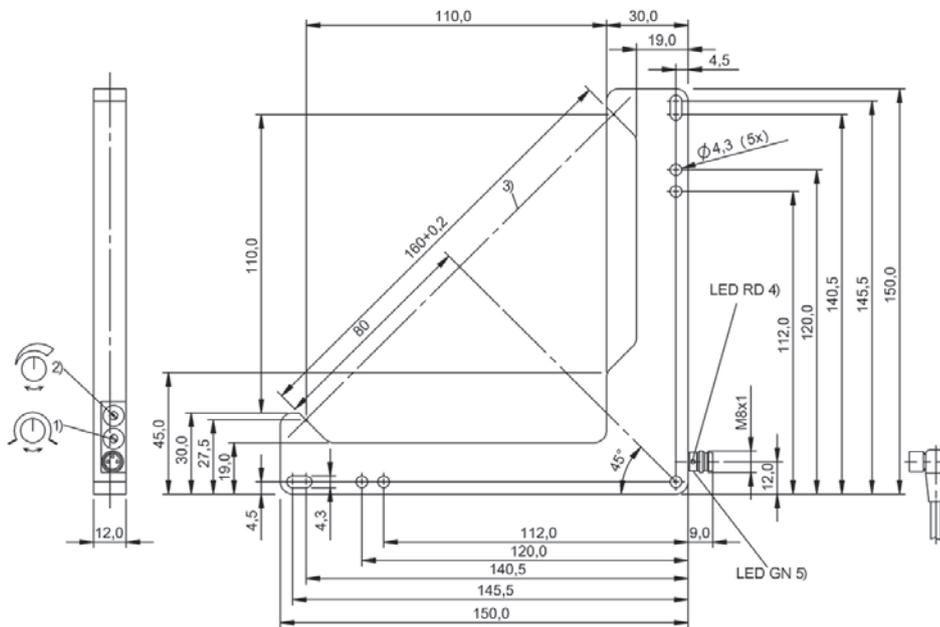
BWL000Y



1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

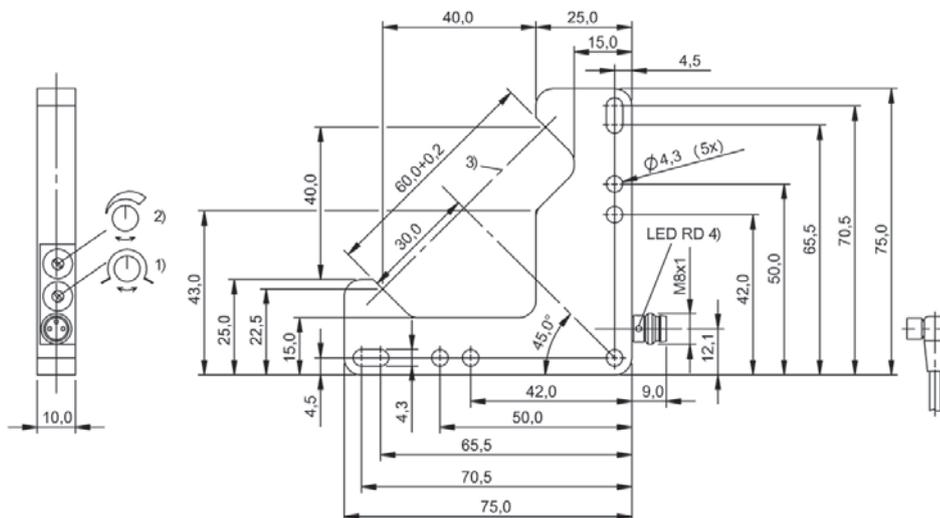
BWL0015

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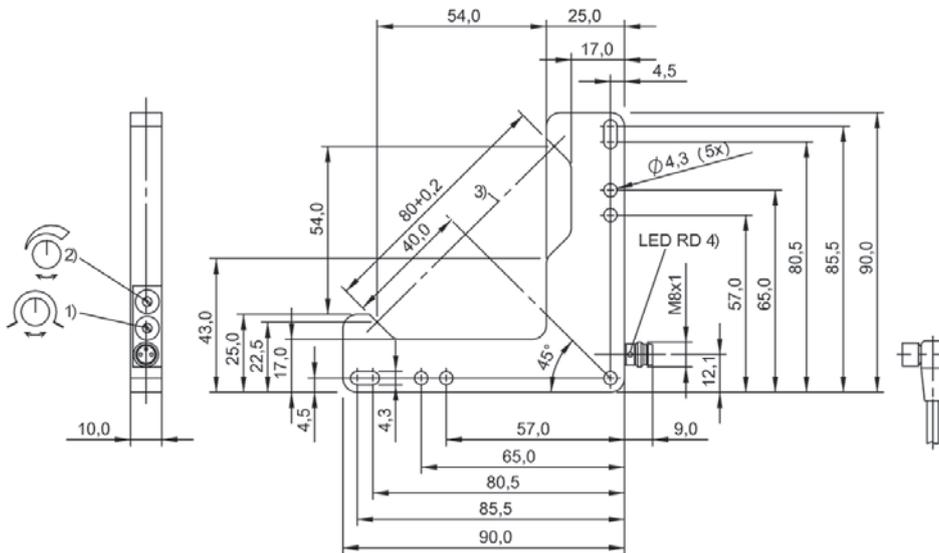
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL0001



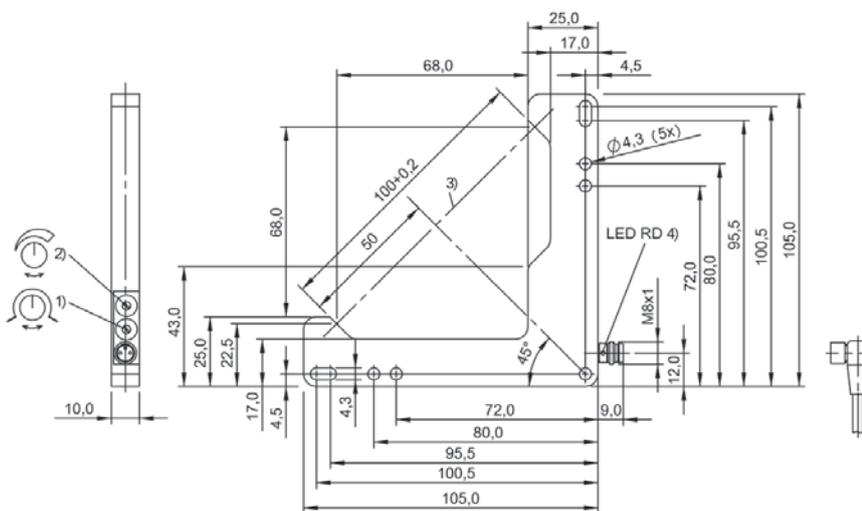
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

BWL000C, BWL000J, BWL000F



1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

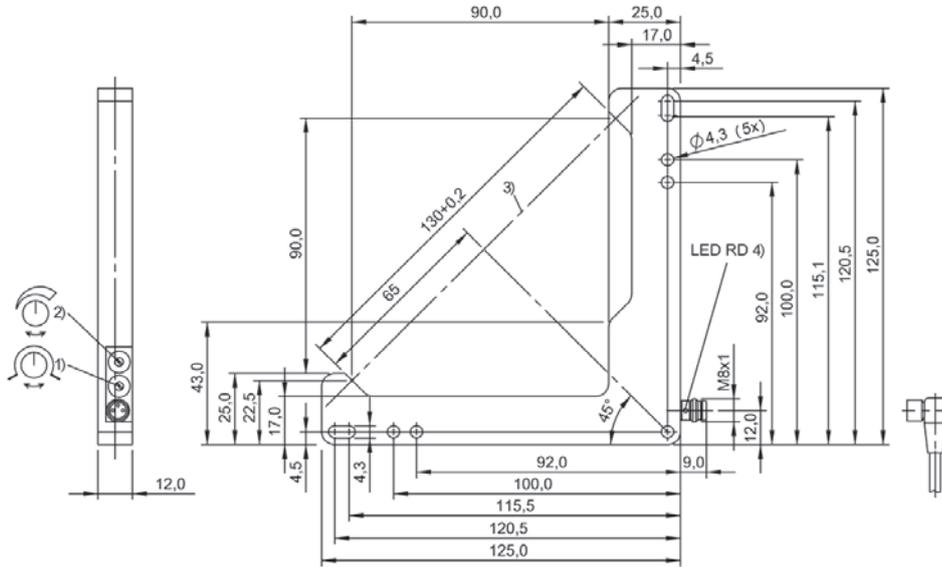
BWL000N, BWL000U, BWL000R



1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

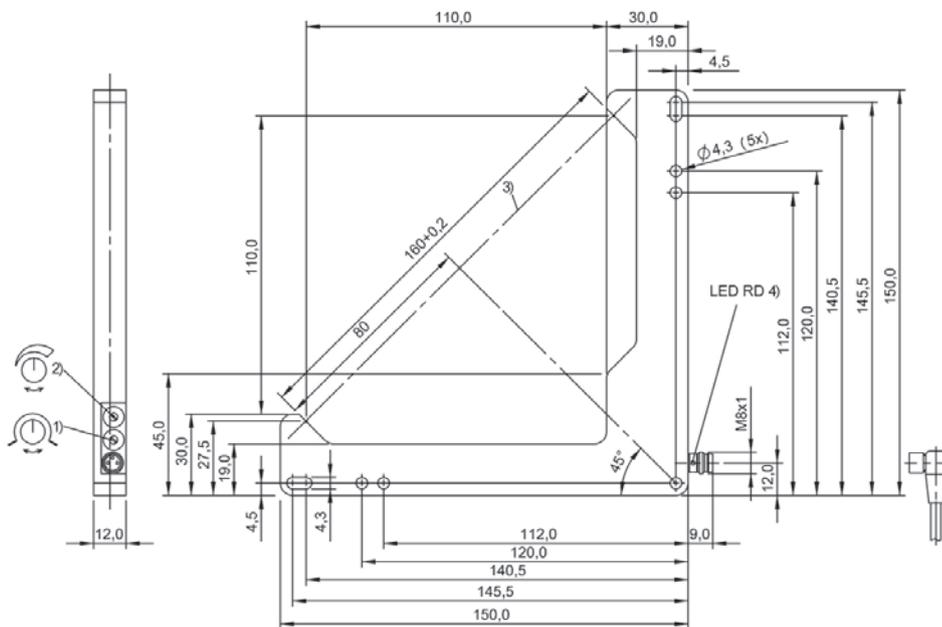
BWL0010, BWL001N, BWL0012

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1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

BWL0017, BWL001C, BWL0019



1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

BWL0003, BWL0007, BWL0005



PNP dynamic normally open	BOW001A BOW A-0408-PS-C-S49	BOW001J BOW A-0808-PS-C-S49	BOW0012 BOW A-1208-PS-C-S49	
NPN dynamic normally open				
PNP statisch normally open/normally closed, NPN statisch normally open/normally closed				
Series	A	A	A	
Dimension	18 x 90 x 140 mm	18 x 130 x 140 mm	18 x 170 x 140 mm	
Active window (PL x AL)	40 x 80 mm	80 x 80 mm	120 x 80 mm	
Principle of operation	Optical window sensor	Optical window sensor	Optical window sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Infrared	Infrared	Infrared	
Connection	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	
Housing material	Aluminum	Aluminum	Aluminum	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE	CE	CE	
Productview	Page 506	Page 506	Page 507	



		BOW002H BOW A-1216-PS-C-S49		BOW002J BOW A-1616-PS-C-S49	
	BOW0029 BOW A-1216-NS-C-S49		BOW002A BOW A-1616-NS-C-S49		
					BOW002U BOW B-0404-DU-C-S75
	A	A	A	A	B
	18 x 170 x 220 mm	18 x 170 x 220 mm	18 x 210 x 220 mm	18 x 210 x 220 mm	15 x 90 x 104 mm
	120 x 160 mm	120 x 160 mm	160 x 160 mm	160 x 160 mm	40 x 40 mm
	Optical window sensor				
	Through-beam sensor				
	Divergent	Divergent	Divergent	Divergent	Divergent
	Infrared	Infrared	Infrared	Infrared	Infrared
	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 4-pin			
	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	15...30 VDC
	CE	CE	CE	CE	CE, EAC
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PNP statisch normally open/normally closed, NPN statisch normally open/normally closed	BOW002Y BOW B-0808-DU-C-S75	BOW0031 BOW B-1212-DU-C-S75	BOW0034 BOW B-1616-DU-C-S75	
Series	B	B	B	
Dimension	15 x 130 x 134 mm	15 x 170 x 174 mm	15 x 210 x 214 mm	
Active window (PL x AL)	80 x 80 mm	120 x 120 mm	160 x 160 mm	
Principle of operation	Optical window sensor	Optical window sensor	Optical window sensor	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Infrared	Infrared	Infrared	
Connection	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	
Housing material	Aluminum	Aluminum	Aluminum	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage U_b	15...30 VDC	15...30 VDC	15...30 VDC	
Approval/Conformity	CE, EAC	CE, EAC	CE, EAC	
Productview	Page 509	Page 509	Page 510	



BOW0037 BOW B-2020-DU-C-S75				
B				
15 x 250 x 244 mm				
200 x 200 mm				
Optical window sensor				
Through-beam sensor				
Divergent				
Infrared				
Connector, M8x1 connector, 4-pin				
Aluminum				
PMMA				
15...30 VDC				
CE, EAC				
Page 510				

Sensors

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Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

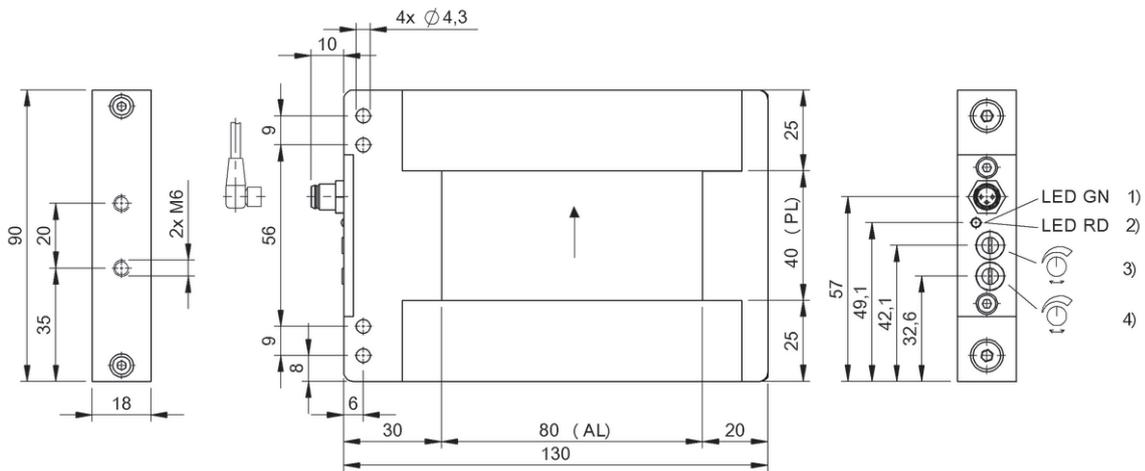
Safety

Industrial Networking

Power Supply

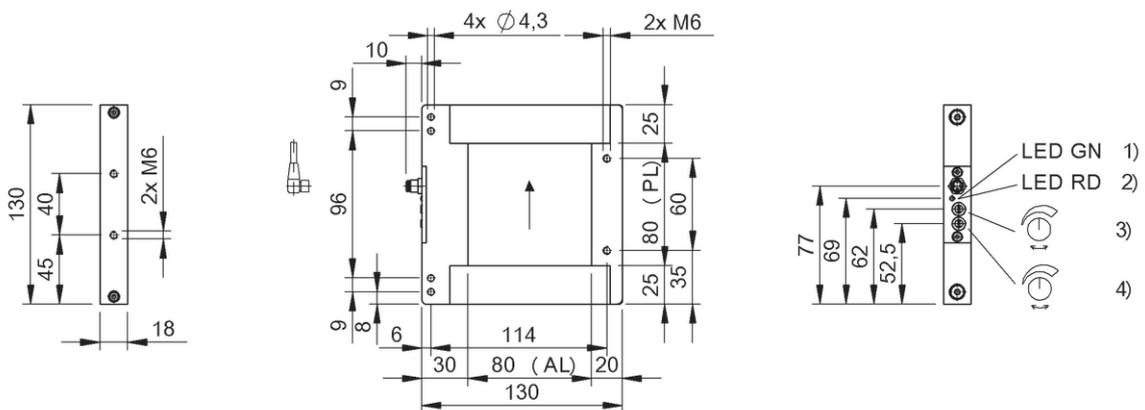
Connectivity

Accessories



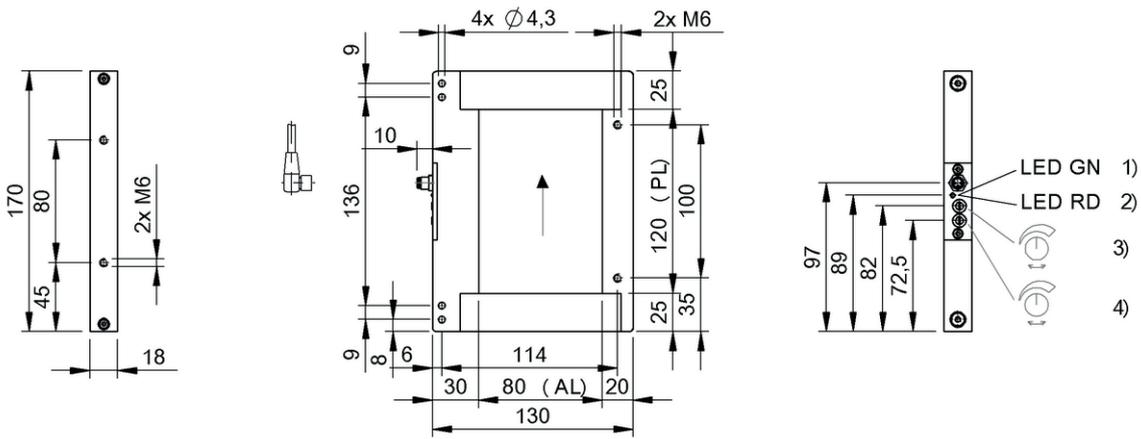
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW001A



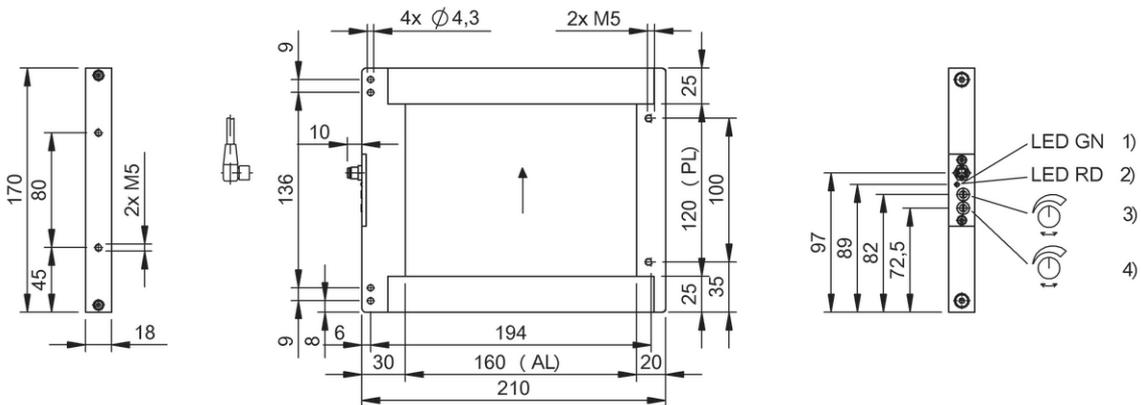
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW001J



1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

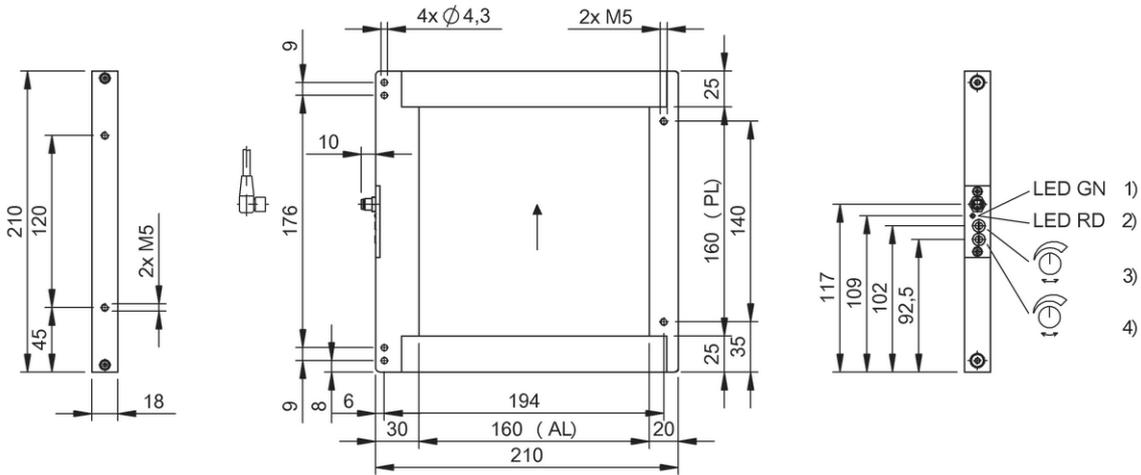
BOW0012



1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

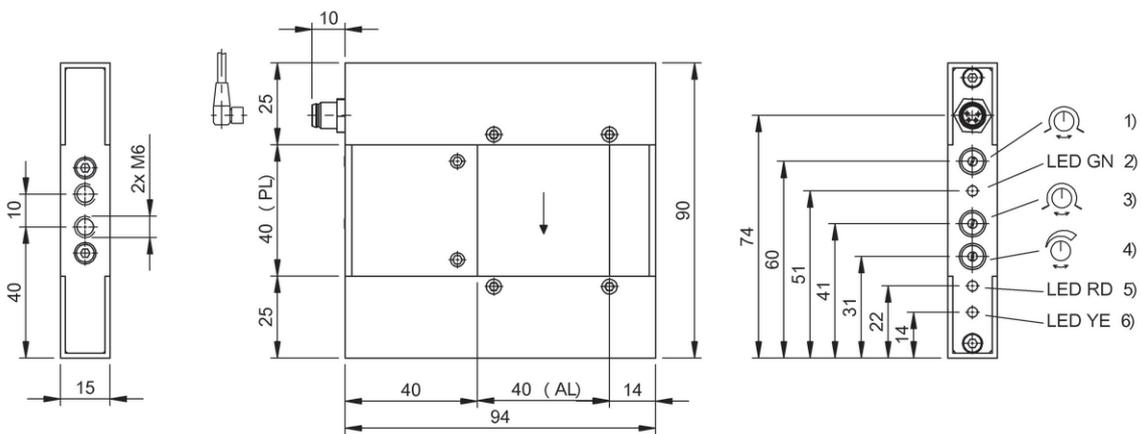
BOW0029, BOW002H

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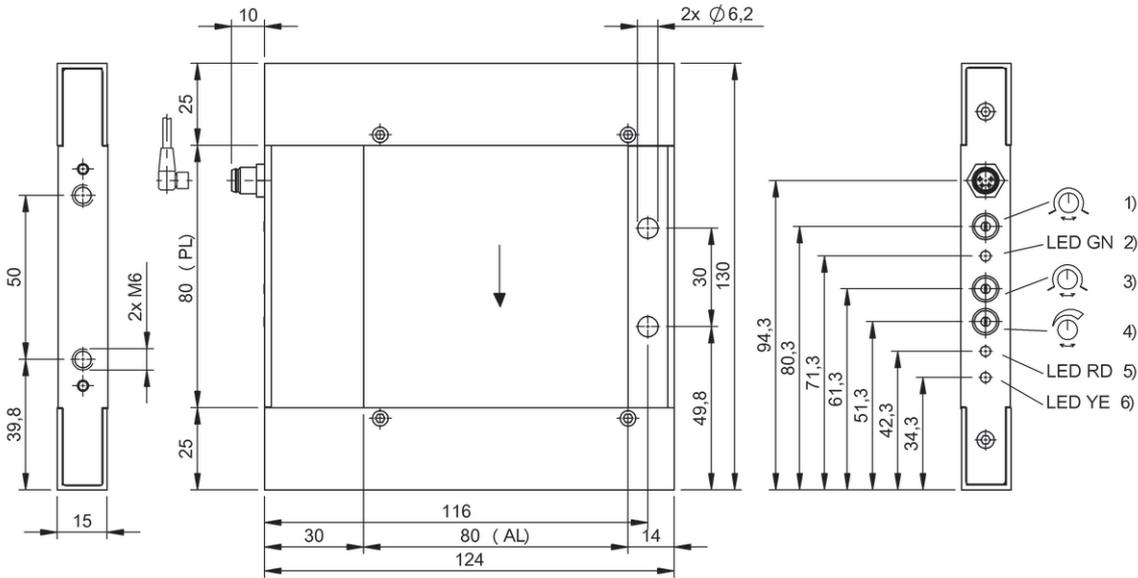
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW002A, BOW002J



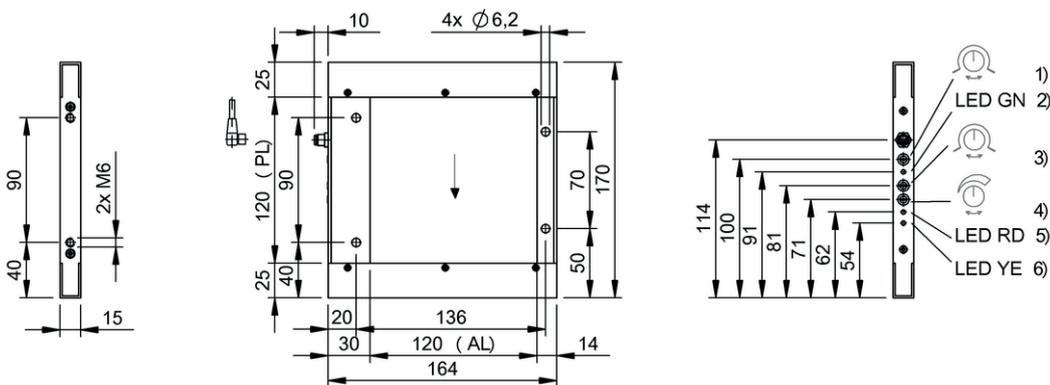
1) Pulse extender, 2) LED Power, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

BOW002U



1) Pulse extender, 2) LED Power, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

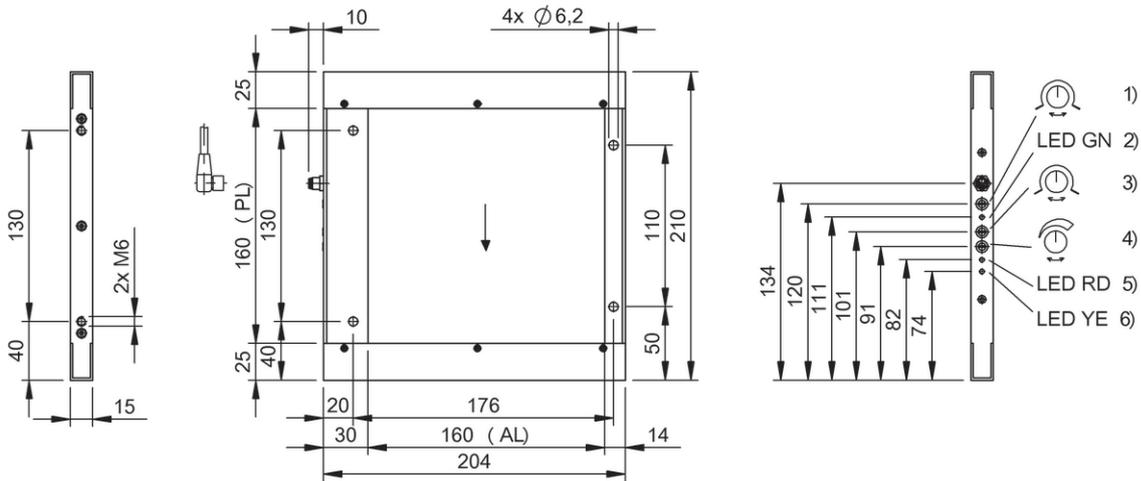
BOW002Y



1) Pulse extender, 2) LED Power, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

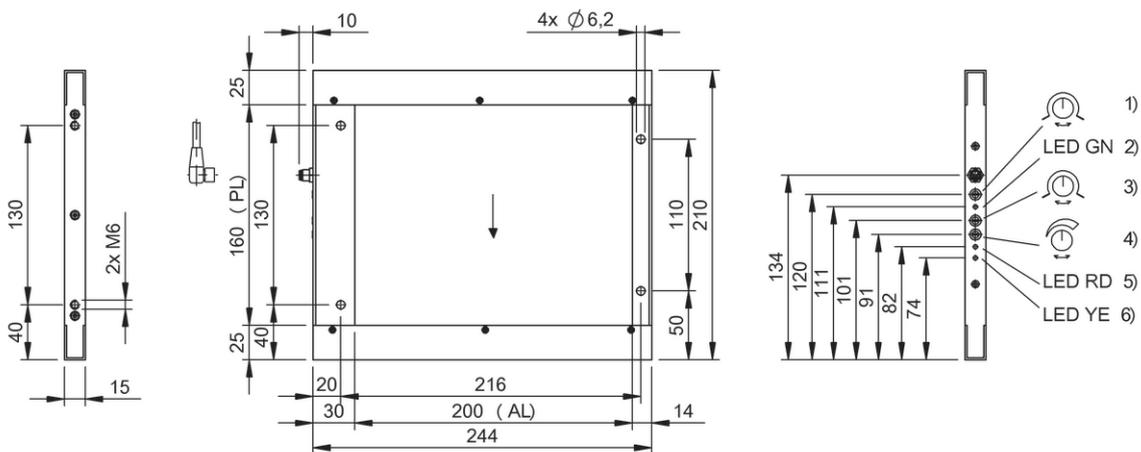
BOW0031

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1) Pulse extender, 2) LED Power, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

BOW0034



1) Pulse extender, 2) LED Power, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

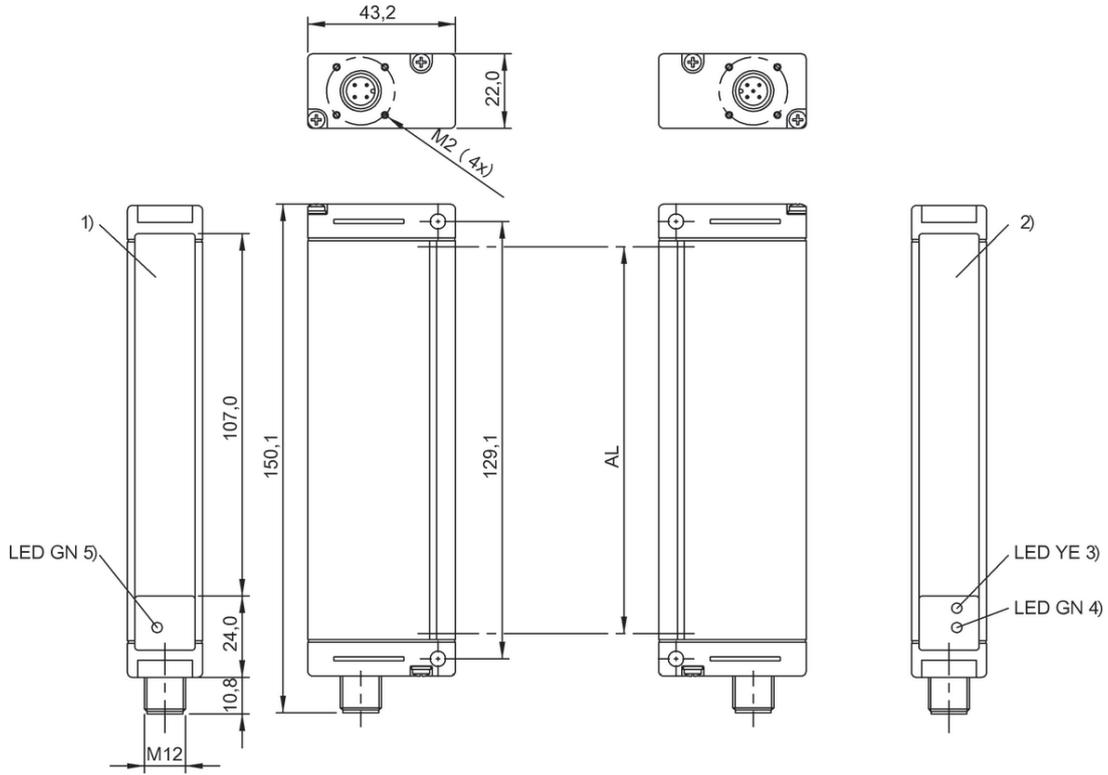
BOW0037



	BLG0001 BLG 1-010-210-050-PV01-SX	
Series	1-010	
Dimension	22 x 150.1 x 43.2 mm	
Active length AL 1	100 mm	
Interface	Analog, voltage 0...10 V PNP Normally open (NO)	
Principle of operation	Light grid	
Principle of optical operation	Through-beam sensor	
Special optical feature	—	
Beam characteristic	Divergent	
Light type	Infrared	
Range	0...2.1 m	
Smallest part typ.	5.0 at t 0.5 x Sn, R 0 = 2.1 m	
Connection	Connector, M12x1 connector	
Housing material	Aluminum	
Material sensing surface	PMMA	
Operating voltage U _b	20...28 VDC	
Approval/Conformity	CE	
Productview	Page 514	

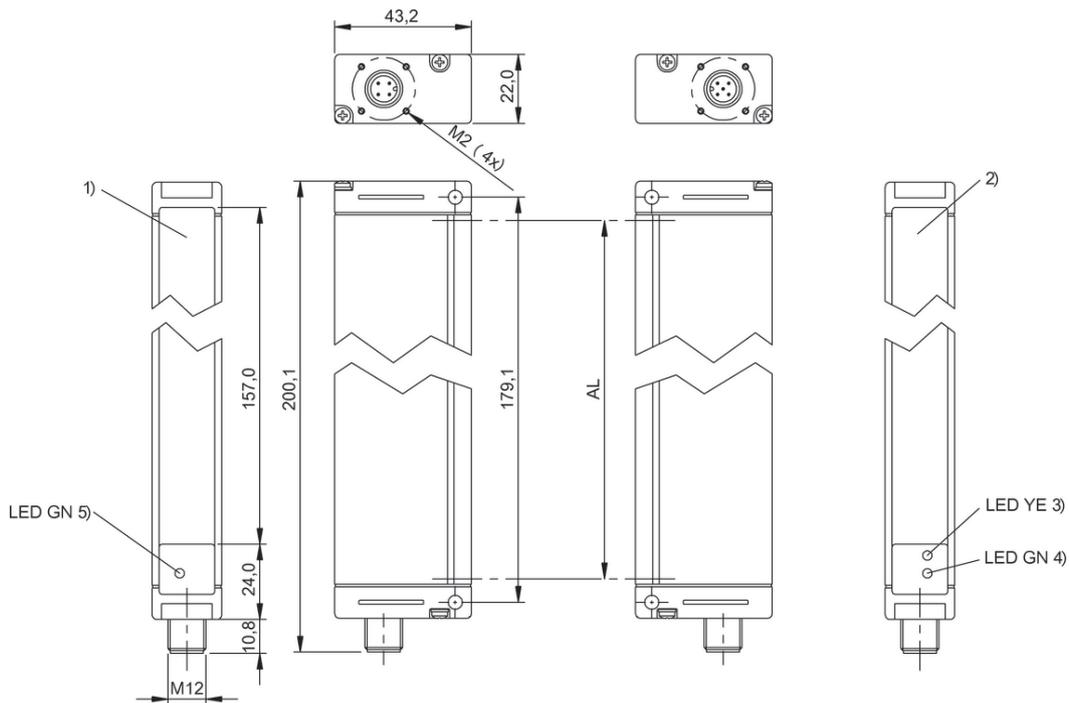


	BLG0002 BLG 1-010-210-070-PV01-SX	BLG0003 BLG 1-015-210-050-PV01-SX	BLG0005 BLG 1-030-210-070-PV01-SX
	1-010	1-015	1-030
	22 x 150.1 x 43.2 mm	22 x 200.1 x 43.2 mm	22 x 350.1 x 43.2 mm
	100 mm	150 mm	300 mm
	Analog, voltage 0...10 V PNP Normally open (NO)	Analog, voltage 0...10 V PNP Normally open (NO)	Analog, voltage 0...10 V PNP Normally open (NO)
	Light grid	Light grid	Light grid
	Through-beam sensor	Through-beam sensor	Through-beam sensor
	—	—	—
	Divergent	Divergent	Divergent
	Infrared	Infrared	Infrared
	0...2.1 m	0...2.1 m	0...2.1 m
	7.0 at t 0.5 x Sn, R0 = 2.1 m	5.0 at t 0.5 x Sn, R0 = 2.1 m	7.0 at t 0.5 x Sn, R0 = 2.1 m
	Connector, M12x1 connector	Connector, M12x1 connector	Connector, M12x1 connector
	Aluminum	Aluminum	Aluminum
	PMMA	PMMA	PMMA
	20...28 VDC	20...28 VDC	20...28 VDC
	CE	CE	CE
	Page 514	Page 514	Page 515



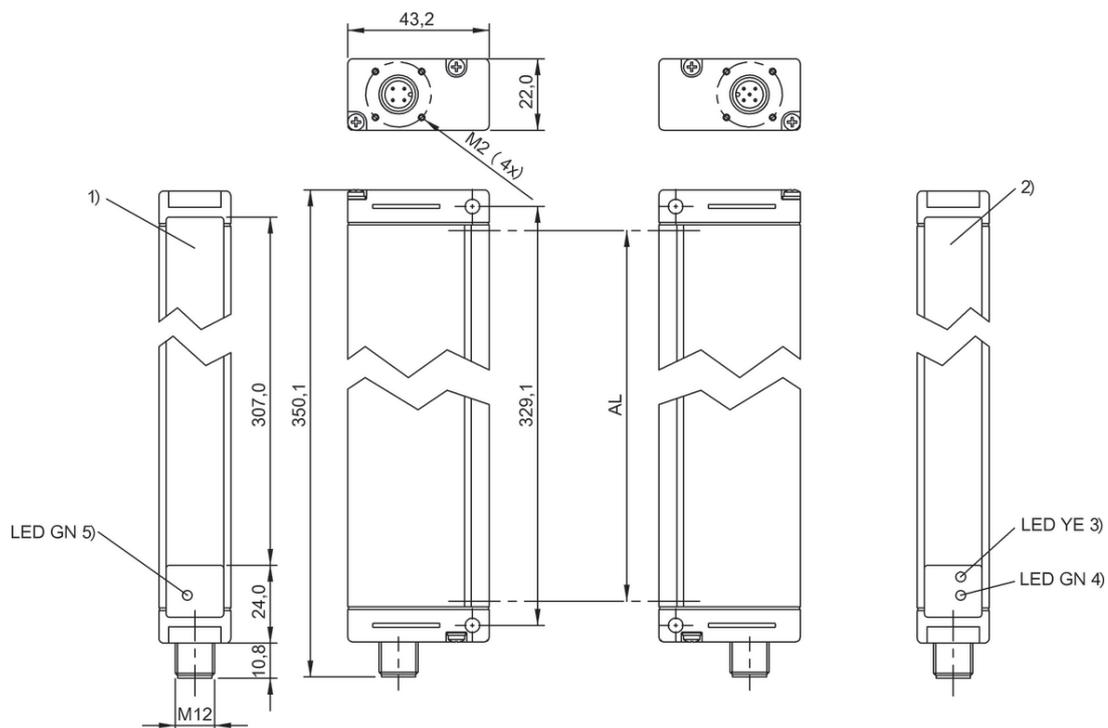
1) Sensing surface, 2) Sensing surface, 3) Output function, 4) stability/error, 5) Operating voltage

BLG0001, BLG0002



1) Sensing surface, 2) Sensing surface, 3) Output function, 4) stability/error, 5) Operating voltage

BLG0003



1) Sensing surface, 2) Sensing surface, 3) Output function, 4) stability/error, 5) Operating voltage

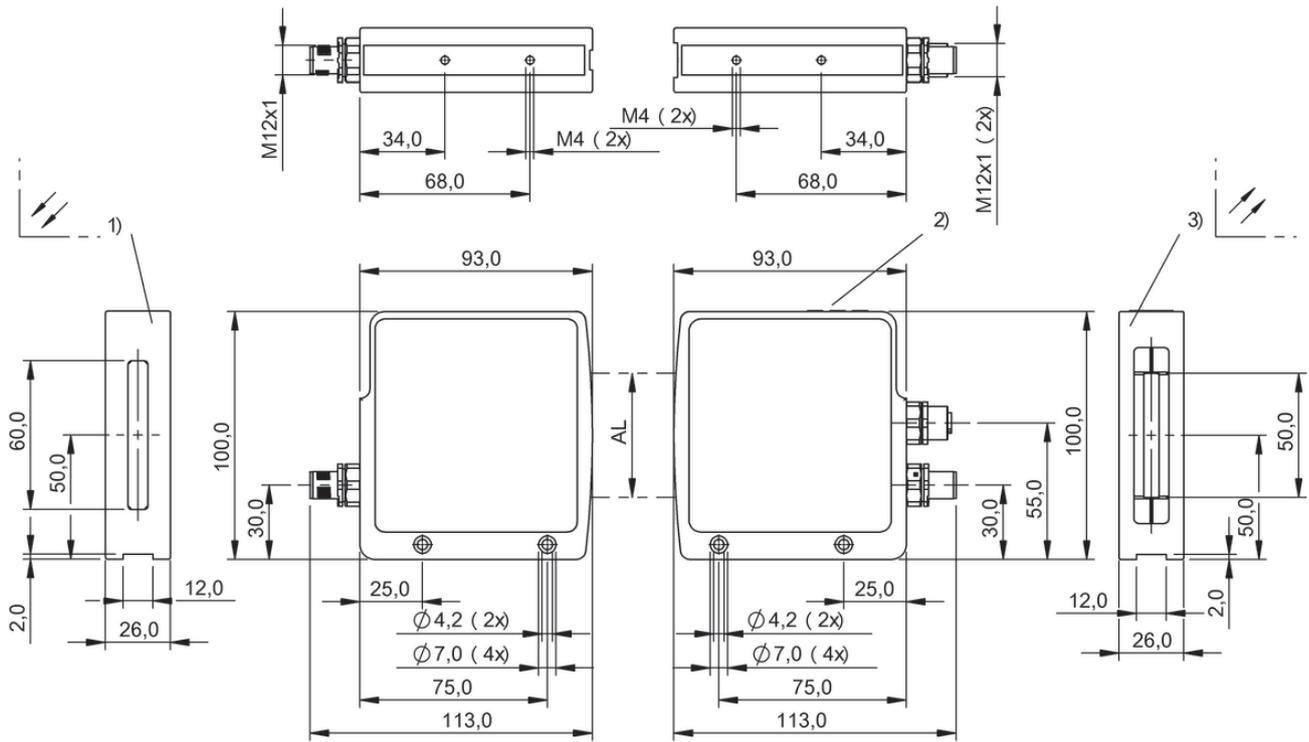
BLG0005



	BLA0001 BLA 50A-001-S115	
Series	A	
Dimension	100 x 26 x 93 mm	
Interface	2x Analog, voltage/analog, current 0...10 V/4...20 mA 3x PNP Normally open (NO)	
Principle of operation	Light array	
Special optical feature	CCD technology	
Beam characteristic	Collimated light strip, width 54 mm	
Light type	Laser red light	
Range	0...2 m	
Connection 1	M12x1-Male, 4-pole, A-coded	
Connection 2	M12x1-Female, 4-pole, A-coded	
Connection 3	M12x1-Male, 8-pole, A-coded	
Housing material	Aluminum	
Operating voltage U_b	15...30 VDC	
Approval/Conformity	CE	
Productview	Page 518	



BLA0003 BLA 50A-002-S4	
A	
100 x 27 x 93 mm	
IO-Link 1.1	
Light array	
CCD technology	
Collimated light strip, width 54 mm	
Laser red light	
0...2 m	
M12x1-Male, 4-pole	
M12x1-Female, 4-pole	
M12x1-Male, 4-pole	
Aluminum	
18...30 VDC	
CE	
Page 518	



1) Emitter, 2) Display and control panel, 3) Receiver

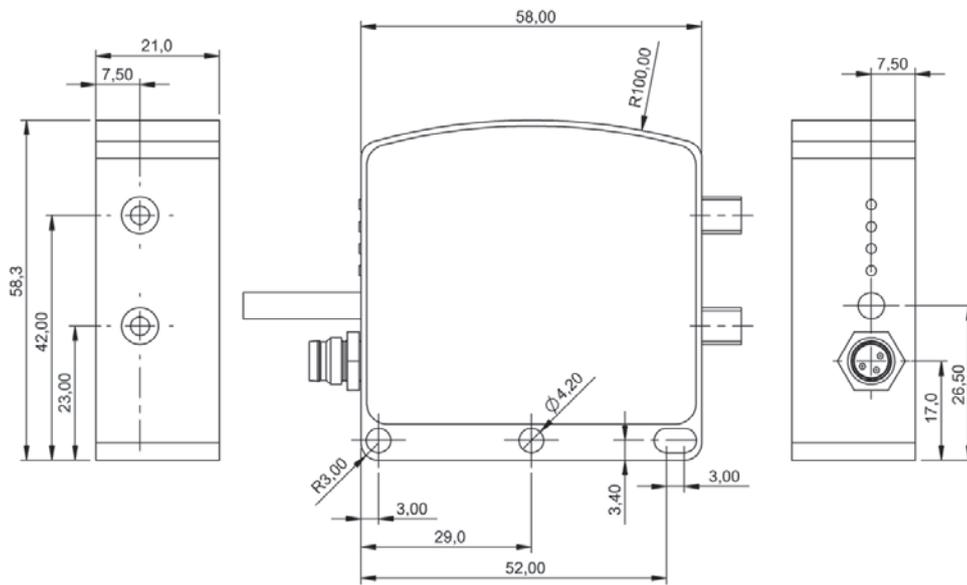
BLA0001, BLA0003



	BFS0001 BFS 26K-PS-L01-S115	
Series	26K	
Dimension	17 x 50 x 50 mm	
Interface	3x PNP normally open (NO)	
Input function	Emitter on/off, Key disable on/off, Teach color (switchpoint)	
Principle of operation	Color sensor	
Principle of optical operation	Diffuse sensor, fixed focus	
Beam characteristic	Focused	
Light type	White light	
Light spot size	Ø 4 mm at 22 mm	
Range	12...32 mm	
Connection	Connector, M12x1 connector, 8-pin	
Housing material	ABS	
Material sensing surface	PMMA	
Operating voltage U_b	12...28 VDC	
Approval/Conformity	CE, cULus, EAC	
Productview	Page 522	



	BFS000M BFS 33M-GSI-F01-S75	BFS000L BFS 33M-GSS-F01-PU-02	
	33M	33M	
	21 x 58.3 x 58 mm	21 x 58.3 x 74 mm	
	IO-Link 1.1 2x NO/NC	3x PNP/NPN normally open/normally closed (NO/NC)	
	—	—	
	Color sensor	Color sensor	
	Diffuse sensor	—	
	—	—	
	White light	White light	
	—	—	
	—	—	
	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PUR	
	Aluminum	Aluminum	
	—	—	
	21.6...26.4 VDC	21.6...26.4 VDC	
	CE	CE	
	Page 522	Page 523	



BFS000L



PNP normally open, PNP normally closed	BKT000H BKT 18KF-001-P-S4			
PNP normally open/normally closed		BKT0010 BKT 6K-002-P-S75	BKT000Y BKT 21M-002-P-S4	
PNP/NPN normally open/normally closed, analog, voltage 1...5.5 V				
PNP/NPN normally open/normally closed				
Series	18KF	6K	21M	
Dimension	Ø 18 x 81.5 mm	12 x 41.5 x 21.6 mm	12 x 50 x 42.5 mm	
Input function	—	Key disable on/off, Same function as button	Key disable on/off, Teach Contrast (switching point)	
Principle of operation	Contrast sensor	Contrast sensor	Contrast sensor	
Principle of optical operation	Diffuse sensor, Focused	Diffuse sensor, Focused	Diffuse sensor, Focused	
Special optical feature	—	—	Coaxial Optics	
Beam characteristic	Focused	Focused	Focused	
Light type	White light	Laser red light	White light	
Light spot size	Ø 4.5 mm at 10 mm	0.7 x 0.7 mm at 250 mm	Ø 3.5 mm at 19 mm	
Range	8...12 mm	1...250 mm	17...21 mm	
Connection	Connector, M12x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Housing material	PBT	ABS	Zinc, die-cast Aluminum	
Material sensing surface	PMMA	PMMA	Glass	
Operating voltage U _b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	cULus, CE, EAC	cULus, CE, EAC	
Productview	Page 526	Page 526	Page 527	



	BKT003 BKT 67M-003-U-S92			BKT001 BKT 67M-001-U-S92	
		BKT005 BKT 67M-005-U-S92	BKT006 BKT 67M-006-U-S92		
	67M	67M	67M	67M	
	32 x 64 x 82 mm				
	Same function as SET button	Same function as SET button	Same function as SET button	Time function on/off	
	Contrast sensor	Contrast sensor	Contrast sensor	Contrast sensor	
	Diffuse sensor, Focused	Diffuse sensor, Focused	Diffuse sensor, Focused	Diffuse sensor, Focused	
	—	—	—	—	
	Focused	Focused	Focused	Focused	
	blue light/green light/ red light				
	1.5 x 5 mm at 9 mm	1.5 x 5 mm at 9 mm	5 x 1.5 mm at 9 mm	1.5 x 5 mm at 9 mm	
	6...12 mm	6...12 mm	6...12 mm	6...12 mm	
	Connector, M12x1 connector	Connector, M12x1 connector	Connector, M12x1 connector	Connector, M12x1 connector	
	Aluminum, die-cast	Aluminum, die-cast	Aluminum, die-cast	Aluminum, die-cast	
	Glass	Glass	Glass	PMMA	
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
	CE, cULus	CE, cULus	CE, cULus	CE, cULus	
	Page 527	Page 528	Page 528	Page 528	

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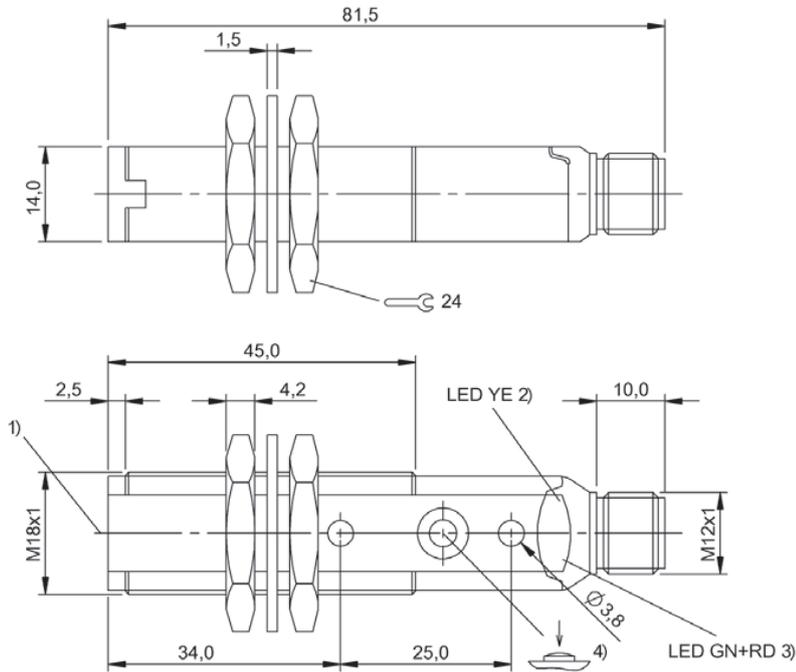
Safety

Industrial Networking

Power Supply

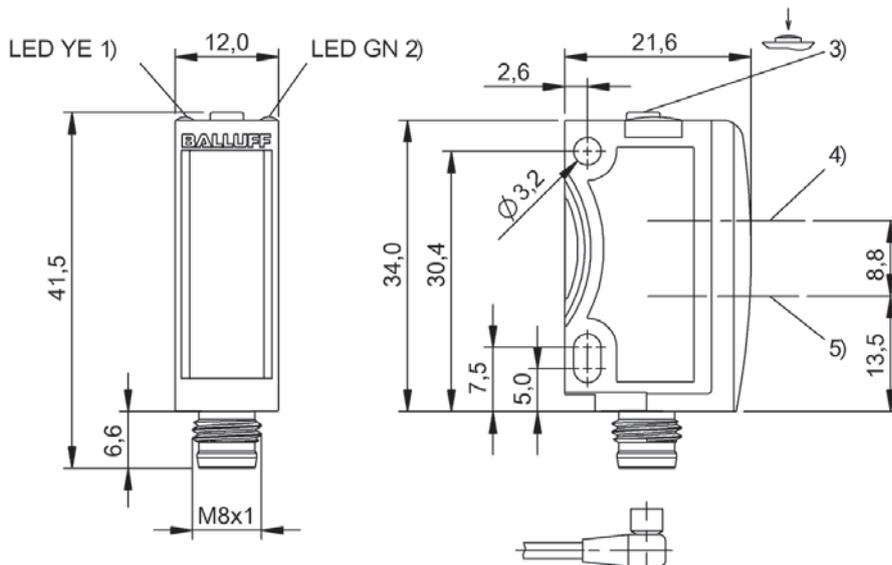
Connectivity

Accessories



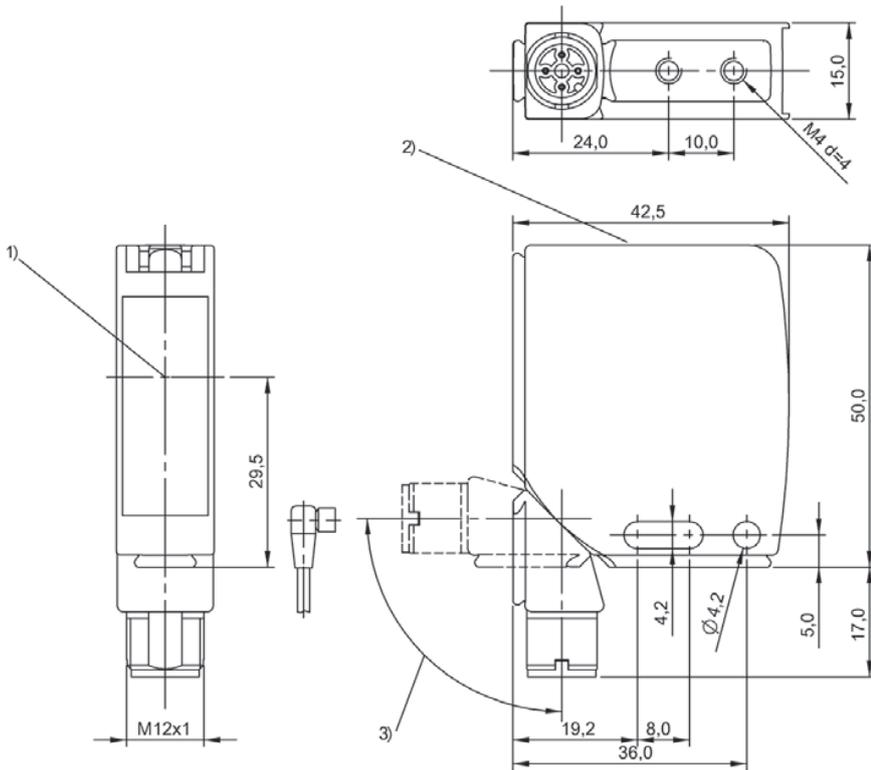
1) Optical axis, 2) Output function, 3) stability/error, 4) Sn

BKT000H



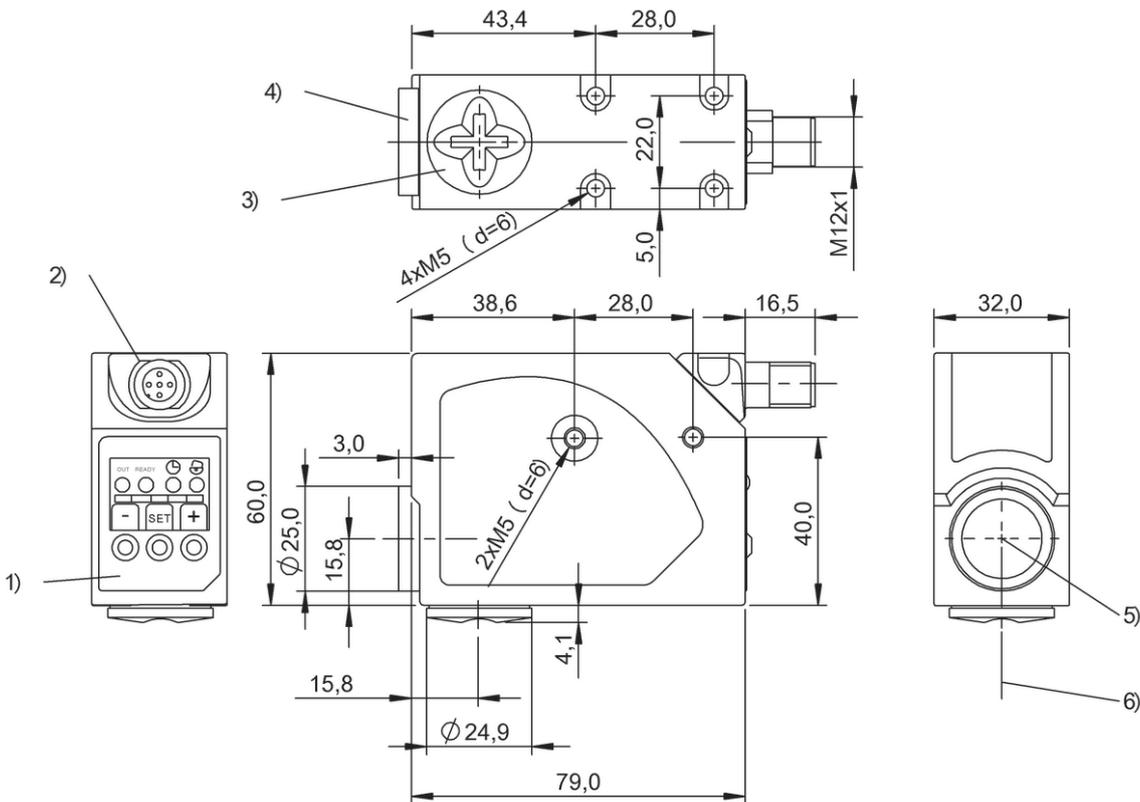
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BKT0010



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

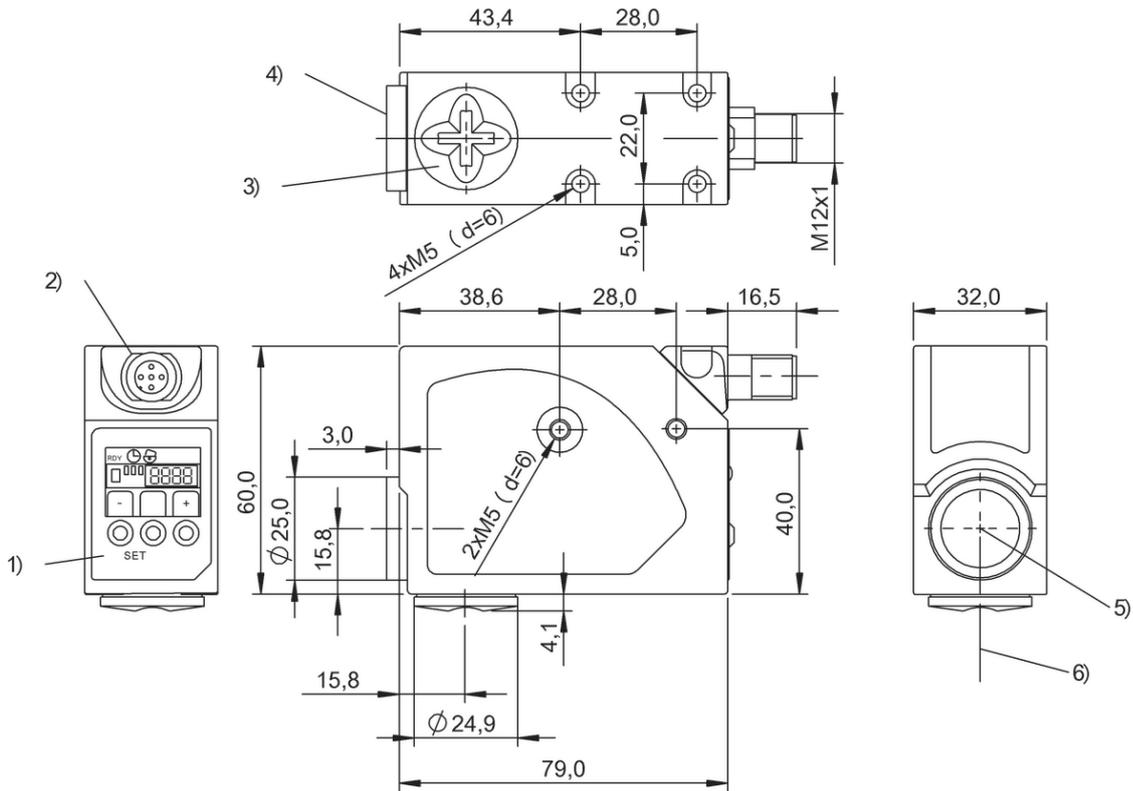
BKT000Y



1) Display and control panel, 2) rotatable 270°, 3) Cover cap, removable, 4) standard lens, removable, 5) Light exit standard, 6) Light exit optional

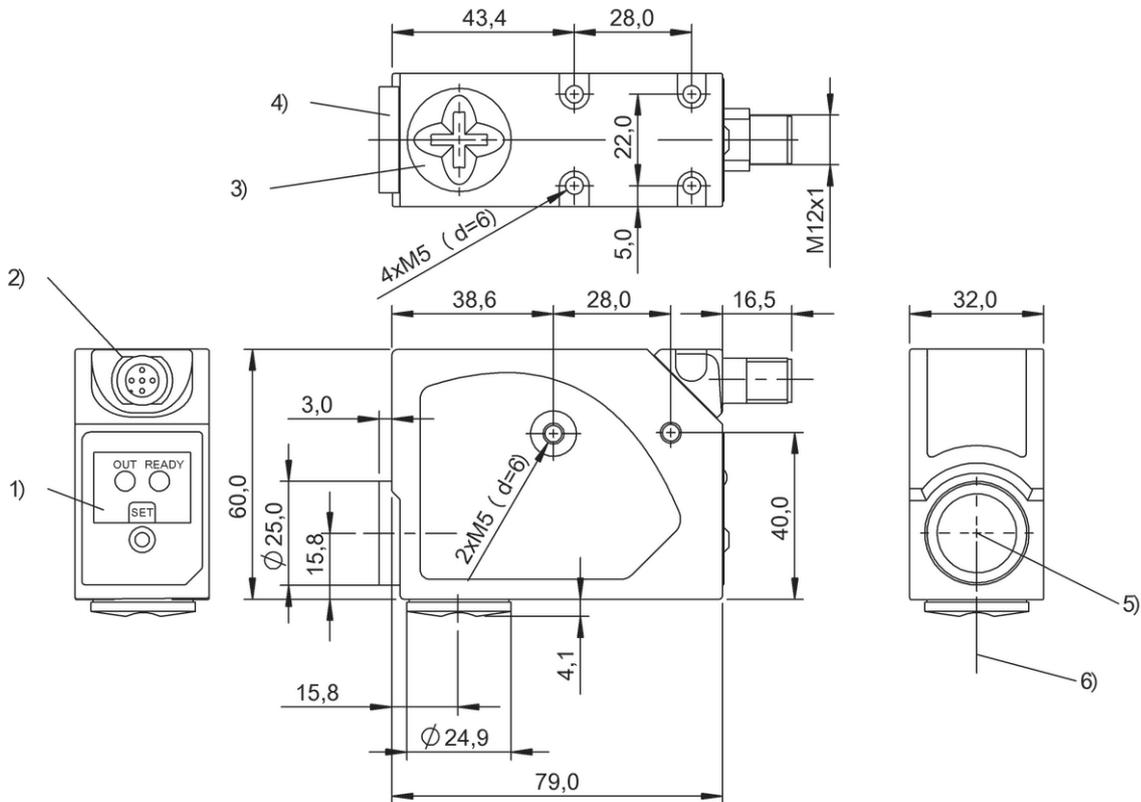
BKT0003

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1) Display and control panel, 2) rotatable 270°, 3) Cover cap, removable, 4) standard lens, removable, 5) Light exit standard, 6) Light exit optional

BKT0005, BKT0006



1) Display and control panel, 2) rotatable 270°, 3) Cover cap, removable, 4) standard lens, removable, 5) Light exit standard, 6) Light exit optional

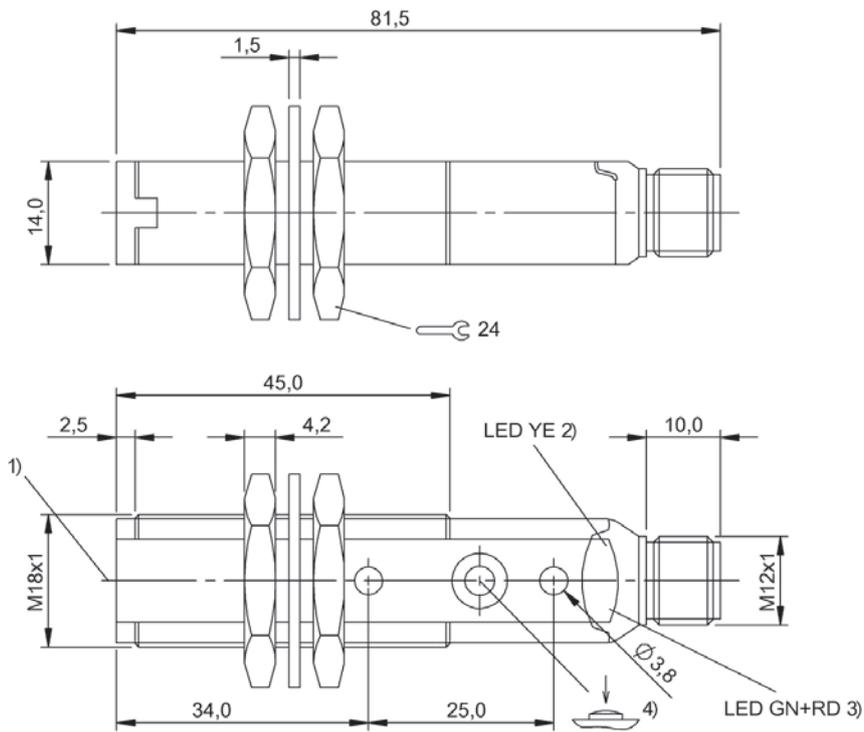
BKT0001



PNP normally open, PNP normally closed	BLT0004 BLT 18KF-001-P-S4	
PNP normally open/normally closed		
Series	18KF	
Dimension	Ø 18 x 81.5 mm	
Input function	—	
Principle of operation	Luminescence sensor	
Principle of optical operation	Diffuse sensor, Focused	
Special optical feature	—	
Beam characteristic	Focused	
Light type	Ultraviolet light	
Light spot size	Ø 3 mm at 20 mm	
Range	8...20 mm	
Connection	Connector, M12x1 connector, 4-pin	
Housing material	PBT	
Material sensing surface	PMMA	
Operating voltage U_b	10...30 VDC	
Approval/Conformity	CE, cULus	
Productview	Page 532	

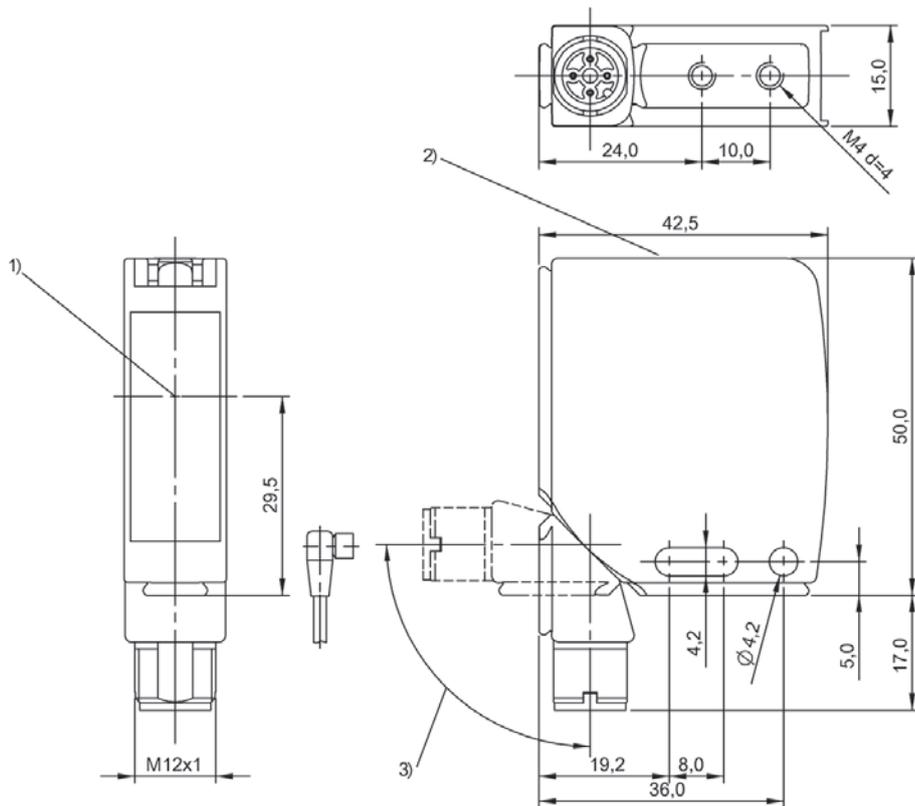


	BLT0009 BLT 21M-001-P-S4	
	21M	
	12 x 50 x 42.5 mm	
	Key disable on/off, Teach Contrast (switching point)	
	Luminescence sensor	
	Diffuse sensor, Focused	
	Coaxial Optics	
	Focused	
	Ultraviolet light	
	Ø 1.5 mm at 10 mm	
	0...40 mm	
	Connector, M12x1 connector, 4-pin	
	Zinc, die-cast Aluminum	
	Glass	
	10...30 VDC	
	cULus, CE	
	Page 532	



1) Optical axis, 2) Output function, 3) stability/error, 4) Sn

BLT0004



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

BLT0009



2 × PNP normally open/normally closed			
PNP normally open/normally closed		BFB0006 BFB 75K-002-P-S75	
PNP normally open/normally closed, analog, voltage 0...10 V	BFB0008 BFB 75K-003-P-02		
Series	75K	75K	
Dimension	10.4 x 35.4 x 79.3 mm	10.4 x 35.4 x 84 mm	
Principle of operation	Fiber optic device	Fiber optic device	
Input function	Teach Sn, Key disable on/off	Teach Sn, Key disable on/off	
Setting	Rated switching distance (Sn), 2 values, Duration of single pulse, Mode normal/fine/fast/far, LCD read direction, Time function, Factory setting (Reset), display on/off, Delay time, Key disable on/off, Light-on/dark-on, Sensitivity (Sn)	LCD read direction, Time function, Factory setting (Reset), Mode normal/fine/fast/far, Duration of single pulse, Rated switching distance (Sn), 2 values, display on/off, Delay time, Key disable on/off, Light-on/dark-on, Sensitivity (Sn)	
Operating voltage Ub	—	10...30 VDC	
Light type	LED, red light	LED, red light	
Connection	Cable, 2.00 m, PVC	Connector, M8x1 connector, 4-pin	
Housing material	ABS	ABS	
Switching frequency	8000 Hz /1000 Hz/125 Hz	8000 Hz /1000 Hz/125 Hz	
Approval/Conformity	cULus, CE	cULus, CE	
Productview	Page 538	Page 538	



			BFB000C BFB M18M-011-P-S4	BFB000E BFB M18M-012-P-S4
	BFB0003 BFB 75K-001-P-02	BFB0004 BFB 75K-001-P-S75		
	75K	75K	18M	18M
	10.4 x 35.4 x 79.3 mm	10.4 x 35.4 x 84 mm	Ø 18 x 75 mm	Ø 18 x 75 mm
	Fiber optic device	Fiber optic device	Photoelectric sensor	Photoelectric sensor
	Key disable on/off, Same function as button	Same function as button, Key disable on/off	—	—
	Factory setting (Reset), Light-on/dark-on, Sensitivity (Sn)	Light-on/dark-on, Factory setting (Reset), Sensitivity (Sn)	Sensitivity (Sn)	Sensitivity (Sn)
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	LED, red light	LED, red light	LED infrared	LED infrared
	Cable, 2.00 m, PVC	Connector, M8x1 connector, 4-pin	Connector-plug, 4-pin	Connector-plug, 4-pin
	ABS	ABS	Brass	Brass
	1500 Hz	1500 Hz	1000 Hz	3000 Hz
	cULus, CE, EAC	CE, cULus, EAC	CE, EAC, cULus, DC, Code 81U2	CE, EAC, cULus, DC, Code 81U2
	Page 538	Page 538	Page 538	Page 538



2 × PNP normally open/normally closed	BFB0009 BFB M18M-001-P-S4	BFB000A BFB M18M-002-P-S4	
PNP normally open, PNP normally closed			
Series	18M	18M	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Input function	—	—	
Setting	Sensitivity (Sn)	Sensitivity (Sn)	
Operating voltage U _b	10...30 VDC	10...30 VDC	
Light type	LED, red light	LED, red light	
Connection	Connector-plug, 4-pin	Connector-plug, 4-pin	
Housing material	Brass	Brass	
Switching frequency	1000 Hz	3000 Hz	
Approval/Conformity	CE, EAC, cULus, DC, Code 81U2	CE, EAC, cULus, DC, Code 81U2	
Productview	Page 538	Page 538	



	BOS00JJ BOS 18KF-PA-1FR-S4-C			
	18KF			
	Ø 18 x 87 mm			
	Fiber optic device			
	—			
	Sensitivity (Sn)			
	10...30 VDC			
	LED, red light			
	Connector, M12x1 connector, 4-pin			
	PBT			
	1000 Hz			
	CE, cULus			
	Page 538			

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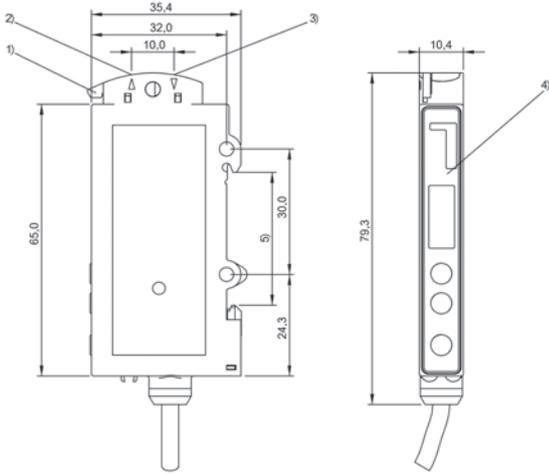
Safety

Industrial Networking

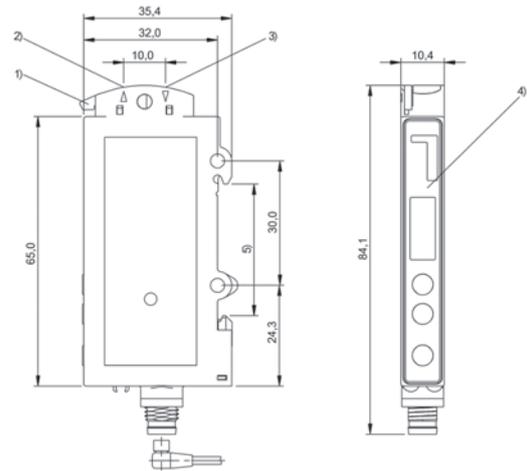
Power Supply

Connectivity

Accessories



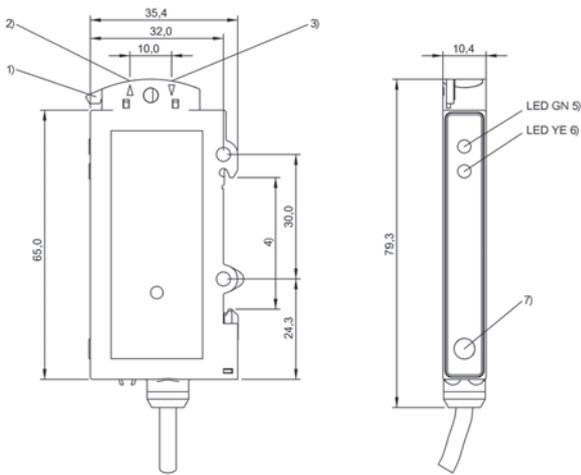
1) Fiber clamp, 2) Receiver, 3) Emitter, 4) Display and control panel, 5) For DIN rail 35mm



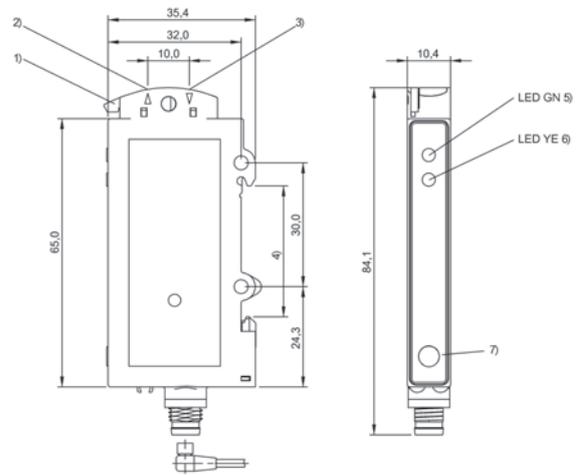
1) Fiber clamp, 2) Receiver, 3) Emitter, 4) Display and control panel, 5) For DIN rail 35mm

BFB0008

BFB0006



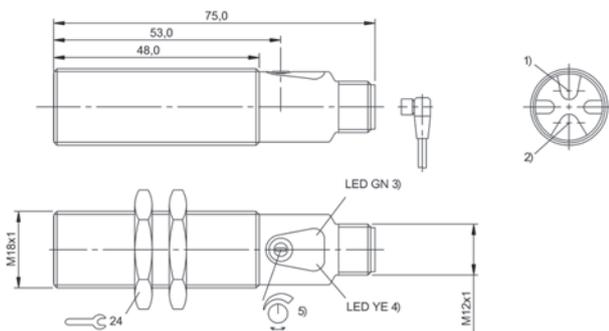
1) Fiber clamp, 2) Emitter, 3) Receiver, 4) For DIN rail 35mm, 5) stability, 6) Output function, 7) Sn



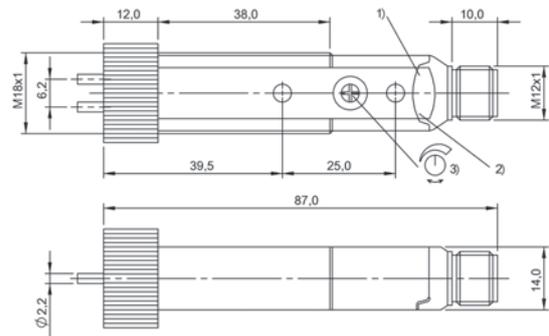
1) Fiber clamp, 2) Emitter, 3) Receiver, 4) For DIN rail 35mm, 5) stability, 6) Output function, 7) Sn

BFB0003

BFB0004



1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area,



1) Output function, 2) Stability, 3) Sn

BFB000C, BFB000E, BFB0009, BFB000A

BOS00JJ

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	BF0000F BFO 18A-LAA-MZG-20-0,5	BF0000H BFO 18A-LAA-MZG-20-1	BF0000J BFO 18A-LAA-MZG-20-1,5	
Version	M5, standard	M5, standard	M5, standard	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	
Fiber type material	Glass	Glass	Glass	
Cable length L	0.50 m	1.00 m	1.50 m	
Material jacket	Stainless steel	Stainless steel	Stainless steel	
Range	200 mm	200 mm	200 mm	
Ambient temperature	-20...250 °C	-20...250 °C	-20...250 °C	
Material	Brass blackened	Brass blackened	Brass blackened	
Active surface, fibers	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm	
Active surface, fiber arrangement	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	
Protection degree	IP50	IP50	IP50	
Productview	Page 568	Page 568	Page 568	



	BF0000M BFO 18A-LAA-UZG-20-0,5	BF0000N BFO 18A-LAA-UZG-20-1	BF0001Z BFO 18A-LGG-MZG-10-0,5	BF00020 BFO 18A-LGG-MZG-10-1	BF00023 BFO 18A-LGG-SMG-10-0,5
	M5, standard	M5, standard	Ø 2, standard	Ø 2, standard	Ø 2, standard
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4
	Glass	Glass	Glass	Glass	Glass
	0.50 m	1.00 m	0.50 m	1.00 m	0.50 m
	PUR	PUR	Stainless steel	Stainless steel	Silicone, on stainless steel
	200 mm	200 mm	100 mm	100 mm	100 mm
	-20...85 °C	-20...85 °C	-20...250 °C	-20...250 °C	-40...150 °C
	Brass blackened	Brass blackened	Stainless steel	Stainless steel	Stainless steel
	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm	Bundle Ø 1.4 mm	Bundle Ø 1.4 mm	Bundle Ø 1.4 mm
	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle
	IP67	IP67	IP50	IP50	IP67
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	BF00024 BFO 18A-LGG-SMG-10-1	BF0000U BFO 18A-LCC-SMG-20-0,5	BF0000W BFO 18A-LCC-SMG-20-1	
Version	Ø 2, standard	Ø 6, standard	Ø 6, standard	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	
Fiber type material	Glass	Glass	Glass	
Cable length L	1.00 m	0.50 m	1.00 m	
Material jacket	Silicone, on stainless steel	Silicone, on stainless steel	Silicone, on stainless steel	
Range	100 mm	200 mm	200 mm	
Ambient temperature	-40...150 °C	-40...150 °C	-40...150 °C	
Material	Stainless steel	Brass blackened	Brass blackened	
Active surface, fibers	Bundle Ø 1.4 mm	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm	
Active surface, fiber arrangement	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	
Protection degree	IP67	IP67	IP67	
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	BF0000Z BFO 18A-LCC-UZG-20-1	BF0003Y BFO 18V-LCC-MZG-23-0,5	BF0003Z BFO 18V-LCC-MZG-23-0,75	BF00042 BFO 18V-LCC-SMG-23-0,5	BF0001P BFO 18A-LFF-MZG-10-0,5
	Ø 6, standard	Ø 6, standard	Ø 6, standard	Ø 6, standard	Ø 2, 90° optics
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4
	Glass	Glass	Glass	Glass	Glass
	1.00 m	0.50 m	0.75 m	0.50 m	0.50 m
	PUR	Stainless steel	Stainless steel	Silicone, on stainless steel	Stainless steel
	200 mm	200 mm	200 mm	200 mm	100 mm
	-20...85 °C	-20...250 °C	-20...250 °C	-40...150 °C	-20...250 °C
	Brass blackened	Brass blackened	Brass blackened	Brass blackened	Stainless steel
	Bundle Ø 1.0 mm	Bundle Ø 2.1 mm	Bundle Ø 2.1 mm	Bundle Ø 2.1 mm	Bundle Ø 1.4 mm
	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle
	IP67	IP50	IP50	IP67	IP50
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	BF0001R BFO 18A-LFF-MZG-10-1	BF0001U BFO 18A-LFF-SMG-10-0,5	BF0001W BFO 18A-LFF-SMG-10-1	
Version	Ø 2, 90° optics	Ø 2, 90° optics	Ø 2, 90° optics	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	
Fiber type material	Glass	Glass	Glass	
Cable length L	1.00 m	0.50 m	1.00 m	
Material jacket	Stainless steel	Silicone, on stainless steel	Silicone, on stainless steel	
Range	100 mm	100 mm	100 mm	
Ambient temperature	-20...250 °C	-40...150 °C	-40...150 °C	
Material	Stainless steel	Stainless steel	Stainless steel	
Active surface, fibers	Bundle Ø 1.4 mm	Bundle Ø 1.4 mm	Bundle Ø 1.4 mm	
Active surface, fiber arrangement	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	
Protection degree	IP50	IP67	IP67	
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	BF00013 BFO 18A-LEE-MZG-20-0,5	BF00014 BFO 18A-LEE-MZG-20-1	BF00019 BFO 18A-LEE-SMG-20-0,5	BF0001A BFO 18A-LEE-SMG-20-1	BF0001F BFO 18A-LEE-UZG-20-0,5
	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4
	Glass	Glass	Glass	Glass	Glass
	0.50 m	1.00 m	0.50 m	1.00 m	0.50 m
	Stainless steel	Stainless steel	Silicone, on stainless steel	Silicone, on stainless steel	PUR
	200 mm	200 mm	200 mm	200 mm	200 mm
	-20...250 °C	-20...250 °C	-40...150 °C	-40...150 °C	-20...85 °C
	Brass blackened	Brass blackened	Brass blackened	Brass blackened	Brass blackened
	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm	Bundle Ø 1.0 mm
	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle
	IP50	IP50	IP67	IP67	IP67
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	BF0001H BFO 18A-LEE-UZG-20-1	BF00047 BFO 18V-LDD-MZG-23-0,75	BF00049 BFO 18V-LDD-MZG-23-2,0	
Version	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	
Fiber type material	Glass	Glass	Glass	
Cable length L	1.00 m	0.75 m	2.00 m	
Material jacket	PUR	Stainless steel	Stainless steel	
Range	200 mm	200 mm	200 mm	
Ambient temperature	-20...85 °C	-20...250 °C	-20...250 °C	
Material	Brass blackened	Brass blackened	Brass blackened	
Active surface, fibers	Bundle Ø 1.0 mm	Bundle Ø 2.1 mm	Bundle Ø 2.1 mm	
Active surface, fiber arrangement	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	
Protection degree	IP67	IP50	IP50	
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	BF0004A BFO 18V-LDD-MZG-23-3	BF0004C BFO 18V-LDD-SMG-23-0,5	BF0004F BFO 18V-LDD-SMG-23-1	BF00026 BFO 18A-XAA-MZG-30-0,5	BF00027 BFO 18A-XAA-MZG-30-1
	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics	M5, standard	M5, standard
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4
	Glass	Glass	Glass	Glass	Glass
	3.00 m	0.50 m	1.00 m	0.50 m	1.00 m
	Stainless steel	Silicone, on stainless steel	Silicone, on stainless steel	Stainless steel	Stainless steel
	200 mm	200 mm	200 mm	20 mm	20 mm
	-20...250 °C	-40...150 °C	-40...150 °C	-20...250 °C	-20...250 °C
	Brass blackened	Brass blackened	Brass blackened	Brass blackened	Brass blackened
	Bundle Ø 2.1 mm	Bundle Ø 2.1 mm	Bundle Ø 2.1 mm	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm
	Homogeneous bundle	Homogeneous bundle	Homogeneous bundle	Segmented bundle	Segmented bundle
	IP50	IP67	IP67	IP50	IP50
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	BF000H3 BFO 18A-XAA-MZG-30-5	BF0002F BFO 18A-XAA-SMG-30-0,5	BF0002H BFO 18A-XAA-SMG-30-1	
Version	M5, standard	M5, standard	M5, standard	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	
Fiber type material	Glass	Glass	Glass	
Cable length L	5.00 m	0.50 m	1.00 m	
Material jacket	Stainless steel	Silicone, on stainless steel	Silicone, on stainless steel	
Range	20 mm	20 mm	20 mm	
Ambient temperature	-20...250 °C	-40...150 °C	-40...150 °C	
Material	Brass blackened	Brass blackened	Brass blackened	
Active surface, fibers	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	
Active surface, fiber arrangement	Segmented bundle	Segmented bundle	Segmented bundle	
Protection degree	IP50	IP67	IP67	
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	BF0002M BFO 18A-XAA-UZG-30-0,5	BF0002N BFO 18A-XAA-UZG-30-1	BF000H8 BFO NU1-XB-05K-MZG-11-01	BF0003R BFO 18A-XAG-MZG-15-0,5	BF0003T BFO 18A-XAG-MZG-15-1
	M5, standard	M5, standard	M4, standard	Ø 2, standard	Ø 2, standard
	For fiber optic base units BFB	For fiber optic base units BFB	For photoelectric color sensors BFS	For fiber optic base units BFB	For fiber optic base units BFB
	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFS 33M-GSS-..	BFB M18M-011-P-S4	BFB M18M-011-P-S4
	Glass	Glass	Glass	Glass	Glass
	0.50 m	1.00 m	1.00 m	0.50 m	1.00 m
	PUR	PUR	PE	Stainless steel	Stainless steel
	20 mm	20 mm	60 mm	10 mm	10 mm
	-20...85 °C	-20...85 °C	-20...170 °C	-20...250 °C	-20...250 °C
	Brass blackened	Brass blackened	Stainless steel (1.4305)	Stainless steel	Stainless steel
	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Ø 1.0 mm	Bundle Ø 1.7 mm	Bundle Ø 1.7 mm
	Segmented bundle	Segmented bundle	Ring around individual fiber	Segmented bundle	Segmented bundle
	IP67	IP67	IP50	IP50	IP50
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	BF0002U BFO 18A-XAC-SMG-30-0,5	BF0002W BFO 18A-XAC-SMG-30-1	BF0004M BFO 18V-XAC-MZG-30-0,5	
Version	Ø 6, standard	Ø 6, standard	Ø 6, standard	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	
Fiber type material	Glass	Glass	Glass	
Cable length L	0.50 m	1.00 m	0.50 m	
Material jacket	Silicone, on stainless steel	Silicone, on stainless steel	Stainless steel	
Range	20 mm	20 mm	20 mm	
Ambient temperature	-40...150 °C	-40...150 °C	-20...250 °C	
Material	Brass blackened	Brass blackened	Brass blackened	
Active surface, fibers	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	
Active surface, fiber arrangement	Segmented bundle	Segmented bundle	Segmented bundle	
Protection degree	IP67	IP67	IP50	
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	BF0004P BFO 18V-XAC-SMG-30-0,5	BF0004R BFO 18V-XAC-SMG-30-1	BF0003H BFO 18A-XAF-MZG-15-0,5	BF0003J BFO 18A-XAF-MZG-15-1	BF0003M BFO 18A-XAF-SMG-15-0,5
	Ø 6, standard	Ø 6, standard	Ø 2, 90° optics	Ø 2, 90° optics	Ø 2, 90° optics
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4
	Glass	Glass	Glass	Glass	Glass
	0.50 m	1.00 m	0.50 m	1.00 m	0.50 m
	Silicone, on stainless steel	Silicone, on stainless steel	Stainless steel	Stainless steel	Silicone, on stainless steel
	20 mm	20 mm	10 mm	10 mm	10 mm
	-40...150 °C	-40...150 °C	-20...250 °C	-20...250 °C	-40...150 °C
	Brass blackened	Brass blackened	Stainless steel	Stainless steel	Stainless steel
	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Bundle Ø 1.4 mm	Bundle Ø 1.4 mm	Bundle Ø 1.4 mm
	Segmented bundle	Segmented bundle	Segmented bundle	Segmented bundle	Segmented bundle
	IP67	IP67	IP50	IP50	IP67
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	BFO003N BFO 18A-XAF-SMG-15-1	BFO0031 BFO 18A-XAE-MZG-30-0,5	BFO0032 BFO 18A-XAE-MZG-30-1	
Version	Ø 2, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	
Fiber type material	Glass	Glass	Glass	
Cable length L	1.00 m	0.50 m	1.00 m	
Material jacket	Silicone, on stainless steel	Stainless steel	Stainless steel	
Range	10 mm	20 mm	20 mm	
Ambient temperature	-40...150 °C	-20...250 °C	-20...250 °C	
Material	Stainless steel	Brass blackened	Brass blackened	
Active surface, fibers	Bundle Ø 1.4 mm	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	
Active surface, fiber arrangement	Segmented bundle	Segmented bundle	Segmented bundle	
Protection degree	IP67	IP50	IP50	
Productview	Page 577	Page 577	Page 577	



	BF00037 BFO 18A-XAE-SMG-30-0,5	BF00038 BFO 18A-XAE-SMG-30-1	BF0003C BFO 18A-XAE-UZG-30-0,5	BF0003E BFO 18A-XAE-UZG-30-1	BF0004U BFO 18V-XAD-MZG-30-0,5
	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics	Ø 6, 90° optics
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB M18M-011-P-S4
	Glass	Glass	Glass	Glass	Glass
	0.50 m	1.00 m	0.50 m	1.00 m	0.50 m
	Silicone, on stainless steel	Silicone, on stainless steel	PUR	PUR	Stainless steel
	20 mm	20 mm	20 mm	20 mm	20 mm
	-40...150 °C	-40...150 °C	-20...85 °C	-20...85 °C	-20...70 °C
	Brass blackened	Brass blackened	Brass blackened	Brass blackened	Brass blackened
	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm
	Segmented bundle	Segmented bundle	Segmented bundle	Segmented bundle	Segmented bundle
	IP67	IP67	IP67	IP67	IP50
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	BF0004Y BFO 18V-XAD-SMG-30-0,5	BF0004Z BFO 18V-XAD-SMG-30-1	BF0005Y BFO D22-LD-EAK-10-20	
Version	Ø 6, 90° optics	Ø 6, 90° optics	4.4x2.2 Duplex cable	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB M18M-011-P-S4	BFB M18M-011-P-S4	BFB 75K-001-..	
Fiber type material	Glass	Glass	PMMA	
Cable length L	0.50 m	1.00 m	20.00 m	
Material jacket	Silicone, on stainless steel	Silicone, on stainless steel	PE	
Range	20 mm	20 mm	120 mm For L = 2 m	
Ambient temperature	-40...150 °C	-40...150 °C	-40...85 °C	
Material	Brass blackened	Brass blackened	—	
Active surface, fibers	Bundle Ø 3.0 mm	Bundle Ø 3.0 mm	Ø 1.0 mm (2x)	
Active surface, fiber arrangement	Segmented bundle	Segmented bundle	Adjacent to one another	
Protection degree	IP67	IP67	IP65	
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	BF0000C BFO N22-LA-FB-EAK-05-01	BF0005R BFO D22-LA-RB-EAK-10-02	BF0005M BFO D22-LA-KB-EAK-10-02	BF0005U BFO D22-LAP-KB-EAK-15-02	BF0005T BFO D22-LAH-KB-EAK-10-02
	M2, standard	M3, standard	M4, standard	M4, standard	M4, standard, flexible cable
	For fiber optic base units BFB	For fiber optic base units BFB			
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	1.00 m	2.00 m	2.00 m	2.00 m	2.00 m
	PE	PE	PE	PE	PE
	140 mm	500 mm	500 mm	800 mm	400 mm
	-40...60 °C	-55...70 °C	-40...70 °C	-55...70 °C	-40...70 °C
	Brass nickel plated	Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel (1.4305)
	Ø 0.5 mm	Ø 1.0 mm	Ø 1.0 mm	Ø 1.5 mm	Ø 1.0 mm
	Single fiber	Single fiber	Single fiber	Single fiber	Single fiber
	IP65	IP65	IP65	IP65	IP65
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	BFO005W BFO D22-LAT-KB-EAK-10-02	BFO005N BFO D22-LA-NB-EAK-10-02	BFO0002 BFO D22-LA-TB-EAK-10-02	
Version	M4, standard, high temp.	M4, bendable tip	M4, bendable tip	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	
Fiber type material	PC	PMMA	PMMA	
Cable length L	2.00 m	2.00 m	2.00 m	
Material jacket	PE, cross-linked	PE	PE	
Range	600 mm	500 mm	450 mm	
Ambient temperature	-55...115 °C	-55...70 °C	-40...60 °C	
Material	Stainless steel (1.4305)	Stainless steel (1.4301) nickel plated Brass	Stainless steel	
Active surface, fibers	Ø 1.0 mm	Ø 1.0 mm	Ø 1.0 mm	
Active surface, fiber arrangement	Single fiber	Single fiber	Single fiber	
Protection degree	IP65	IP65	IP65	
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	BF00051 BFO D10-LA-CB-EAK-05-02	BF000AY BFO D22-LAT-YB-EAK-10-0,5	BF00057 BFO D13-LA-WB-EAK-05-02	BF0005P BFO D22-LA-QB-PAK-05-02	BF000H6 BFO D22-LAH-JD-EAK-10-02
	Ø 2, standard	Ø 3, 90° optics, high temperature	Ø 3, thin point, 90° optics	Ø 3, thin point, 90° optics	Ø 3, thin point, 90° optics
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..
	PMMA	PC	PMMA	PMMA	PMMA
	2.00 m	0.50 m	2.00 m	2.00 m	2.00 m
	PE	PE, cross-linked	PE	PVC	PE
	130 mm	600 mm	75 mm	120 mm	300 mm
	-55...70 °C	-55...115 °C	-40...70 °C	-40...70 °C	-40...70 °C
	Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel	Stainless steel	Brass nickel plated
	Ø 0.5 mm	Ø 1.0 mm	Ø 1.0 mm	Ø 1.0 mm	Ø 1.0 mm
	Single fiber	Single fiber	Single fiber	Single fiber	Single fiber
	IP65	IP65	IP65	IP65	IP65
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	BF00056 BFO D13-LA-QB-EAK-05-02	BF000AW BFO D22-LAH-BK-EAK-10-02	BF000C8 BFO D25 LA-HD-EAK-465-02	
Version	Ø 3, thin point, 90° optics	M4, 90° conn., flex. cable	0.25x46.5, 90°-light grid	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	
Fiber type material	PMMA	PMMA	PMMA	
Cable length L	2.00 m	2.00 m	2.00 m	
Material jacket	PE	PE	PE	
Range	110 mm	250 mm	550 mm	
Ambient temperature	-30...70 °C	-40...70 °C	-55...70 °C	
Material	Stainless steel	Brass nickel plated	ABS	
Active surface, fibers	Ø 0.5 mm	Ø 1.0 mm	Ø 0.25 mm (32x)	
Active surface, fiber arrangement	Single fiber	Single fiber	Row	
Protection degree	IP65	IP65	IP65	
Productview	Page 579	Page 579	Page 579	



	BF000C6 BFO D10-LAH-CK-EAK-05-02	BF000C7 BFO D10-LAH-DK-EAK-05-02	BF000AP BFO D22-LA-GD-EAK-52-02	BF00067 BFO D25-LA-CD-EAK-110-02	BF000C5 BFO D25-LA-ED-EAK-250-0,5
	0.5 mm, 90°	0.5 mm, 90°	5x10, light grid	6x19, light grid	0.25x24.8, 90°-light grid
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	2.00 m	2.00 m	2.00 m	2.00 m	0.50 m
	PE	PE	PE	PE	PE
	55 mm	50 mm	500 mm	600 mm	550 mm
	-40...70 °C	-40...70 °C	-55...70 °C	-55...70 °C	-55...70 °C
	Brass nickel plated	Brass nickel plated	Brass nickel plated	Brass nickel plated	ABS
	Ø 0.5 mm	Ø 0.5 mm	Ø 0.25 mm (16x)	Ø 0.25 mm (32x)	Ø 0.25 mm (32x)
	Single fiber	Single fiber	Row	Row	Row
	IP65	IP65	IP65	IP65	IP65
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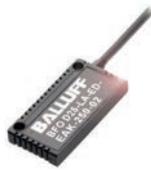
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	BF00068 BFO D25-LA-ED-EAK-250-02	BF0005K BFO D22-LA-BD-EAK-52-02	BF00059 BFO D13-LG-10-EAK-30-02	
Version	5.5x38, 90°-light grid	5x15, 90° light grid	Fork, coaxial optics	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	
Fiber type material	PMMA	PMMA	PMMA	
Cable length L	2.00 m	2.00 m	2.00 m	
Material jacket	PE	PE	PE	
Range	550 mm	400 mm	10 mm	
Ambient temperature	-55...70 °C	-55...70 °C	-55...70 °C	
Material	ABS	Brass nickel plated	Plastic	
Active surface, fibers	Ø 0.25 mm (32x)	Ø 0.25 mm (16x)	Ø 0.25 mm (2x)	
Active surface, fiber arrangement	Row	Row	opposing	
Protection degree	IP65	IP65	IP65	
Productview	Page 580	Page 580	Page 580	



	BF00058 BFO D13-LG-05-EAK-30-02	BF0005E BFO D13-XB-RB-EAK-10-02	BF00054 BFO D10-XA-RB-EAK-10-02	BF000C3 BFO D10-XA-VB-EAK-10-02	BF00052 BFO D10-XA-GB-EAK-10-02
	Fork, coaxial optics	M3, coaxial optics	M3, standard	M3, standard	M3, bendable tip
	For fiber optic base units BFB	For fiber optic base units BFB			
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	2.00 m	2.00 m	2.00 m	2.00 m	2.00 m
	PE	PE	PE	PE	PE
	5 mm	60 mm	50 mm	50 mm	50 mm
	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C
	Plastic	Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel (1.4301) nickel plated Brass	Stainless steel (1.4301) nickel plated Brass
	Ø 0.25 mm (2x)	Ø 0.5 mm, Ø 0.25 mm (10x)	Ø 0.5 mm (2x)	Ø 0.5 mm (2x)	Ø 0.5 mm (2x)
	opposing	Ring around individual fiber	Adjacent to one another	Adjacent to one another	Adjacent to one another
	IP65	IP65	IP65	IP65	IP65
	Page 580	Page 581	Page 581	Page 581	Page 581



	BF0005C BFO D13-XB-KB-EAK-10-02	BF00006 BFO D22-XB-UB-EAK-15-02	BF000C9 BFO D22-XB-UB-EAK-15-SA1-02	
Version	M4, coaxial optics	M4, coaxial optics	M4, coaxial optics	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB 75K-001-..	BFB 75K-001-..	BFS 33M-GSS-..	
Fiber type material	PMMA	PMMA	PMMA	
Cable length L	2.00 m	2.00 m	2.00 m	
Material jacket	PE	PE	PE	
Range	60 mm	130 mm	130 mm	
Ambient temperature	-55...70 °C	-40...60 °C	-40...60 °C	
Material	Stainless steel (1.4305)	Brass nickel plated	Brass nickel plated	
Active surface, fibers	Ø 0.5 mm, Ø 0.25 mm (10x)	Ø 0.25 mm (16x), Ø 1.0 mm	Ø 0.25 mm (16x), Ø 1.0 mm	
Active surface, fiber arrangement	Ring around individual fiber	Ring around individual fiber	Ring around individual fiber	
Protection degree	IP65	IP65	IP65	
Productview	Page 581	Page 581	Page 581	



	BF00055 BFO D10-XAH-KB-EAK-10-02	BF00005 BFO D22-XA-UB-EAK-20-02	BF00053 BFO D10-XA-HB-EAK-10-02	BF00066 BFO D22-XB-LB-EAK-15-02	BF000H4 BFO D22-XB-LB-EAK-15-SA1-0,5
	M4, standard	M4, standard	M4, bendable tip	M6, coaxial optics	M6, coaxial optics
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFS 33M-GSS-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	2.00 m	2.00 m	2.00 m	2.00 m	0.50 m
	PE	PE	PE	PE	PE
	50 mm	150 mm	50 mm	120 mm	80 mm
	-40...70 °C	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C
	Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel (1.4301) nickel plated Brass	Stainless steel (1.4305)	Stainless steel (1.4305)
	Ø 0.5 mm (2x)	Ø 1.0 mm (2x)	Ø 0.5 mm (2x)	Ø 1.0 mm, Ø 0.25 mm (16x)	Ø 1.0 mm, Ø 0.25 mm (16x)
	Adjacent to one another	Adjacent to one another	Adjacent to one another	Ring around individual fiber	Ring around individual fiber
	IP65	IP65	IP65	IP65	IP65
	Page 581	Page 582	Page 582	Page 582	Page 582



	BFO00FP BFO D22-XB-LB-EAK-15-SA1-01	BFO00C4 BFO D22-XB-LB-EAK-15-SA1-02	BFO00FN BFO D22-XB-LB-EAK-15-SA1-05	
Version	M6, coaxial optics	M6, coaxial optics	M6, coaxial optics	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFS 33M-GSS-..	BFS 33M-GSS-..	BFS 33M-GSS-..	
Fiber type material	PMMA	PMMA	PMMA	
Cable length L	1.00 m	2.00 m	5 m	
Material jacket	PE	PE	PE	
Range	80 mm	80 mm	80 mm	
Ambient temperature	-55...70 °C	-55...70 °C	-55...70 °C	
Material	Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel (1.4305)	
Active surface, fibers	Ø 0.25 mm (16x), Ø 1.0 mm	Ø 1.0 mm, Ø 0.25 mm (16x)	Ø 0.25 mm (16x), Ø 1.0 mm	
Active surface, fiber arrangement	Ring around individual fiber	Ring around individual fiber	Ring around individual fiber	
Protection degree	IP65	IP65	IP65	
Productview	Page 582	Page 582	Page 582	



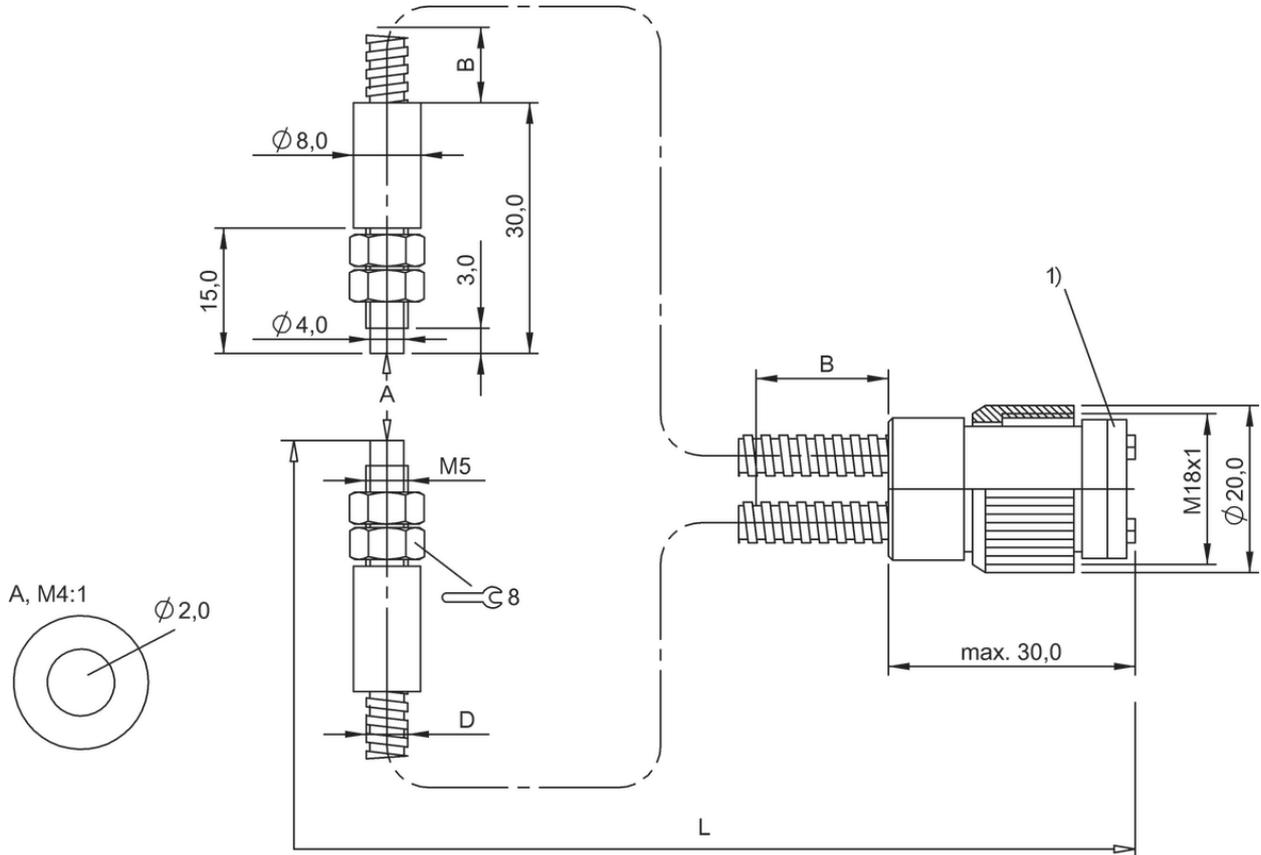
	BF00007 BFO D22-XBF-LB-EAK-15-02	BF000H5 BFO D22-XA-08B-EAK-26-02	BF00064 BFO D22-XAP-LB-EAK-30-02	BF00003 BFO D22-XA-DB-EAK-20-01	BF00063 BFO D22-XAH-LB-EAK-20-02
	M6, coax. optics, flex. cable	M6, standard	M6, standard	M6, standard	M6, standard, flexible cable
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	2.00 m	2.00 m	2.00 m	1.00 m	2.00 m
	PE	PE	PE	PE	PE
	110 mm	180 mm	180 mm	140 mm	120 mm
	-40...60 °C	-55...70 °C	-55...70 °C	-40...60 °C	-40...70 °C
	Brass nickel plated	Brass nickel plated	Stainless steel (1.4305)	Brass nickel plated	Stainless steel (1.4305)
	Ø 1.0 mm, Ø 0.25 mm (16x)	Ø 1.0 mm (2x)	Ø 1.5 mm (2x)	Ø 1.0 mm (2x)	Ø 1.0 mm (2x)
	Ring around individual fiber	Adjacent to one another	Adjacent to one another	Adjacent to one another	Adjacent to one another
	IP65	IP65	IP65	IP65	IP65
	Page 582	Page 582	Page 582	Page 582	Page 583



	BF00065 BFO D22-XAT-LB-EAK-20-02	BF00004 BFO D22-XA-SB-EAK-20-02	BF000AT BFO D13-XB-AB-EAK-10-01	
Version	M6, standard, high temp.	M6, thin tip, standard	Ø 2.5, coax optics	
Use	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	
Reference base unit	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	
Fiber type material	PC	PMMA	PMMA	
Cable length L	2.00 m	2.00 m	1.00 m	
Material jacket	PE, cross-linked	PE	PE	
Range	130 mm	150 mm	60 mm	
Ambient temperature	-55...115 °C	-55...70 °C	-55...70 °C	
Material	Stainless steel (1.4305)	Stainless steel (1.4301) nickel plated Brass	Stainless steel (1.4305)	
Active surface, fibers	Ø 1.0 mm (2x)	Ø 1.0 mm (2x)	Ø 0.5 mm, Ø 0.25 mm (9x)	
Active surface, fiber arrangement	Adjacent to one another	Adjacent to one another	Ring around individual fiber	
Protection degree	IP65	IP65	IP65	
Productview	Page 583	Page 583	Page 583	

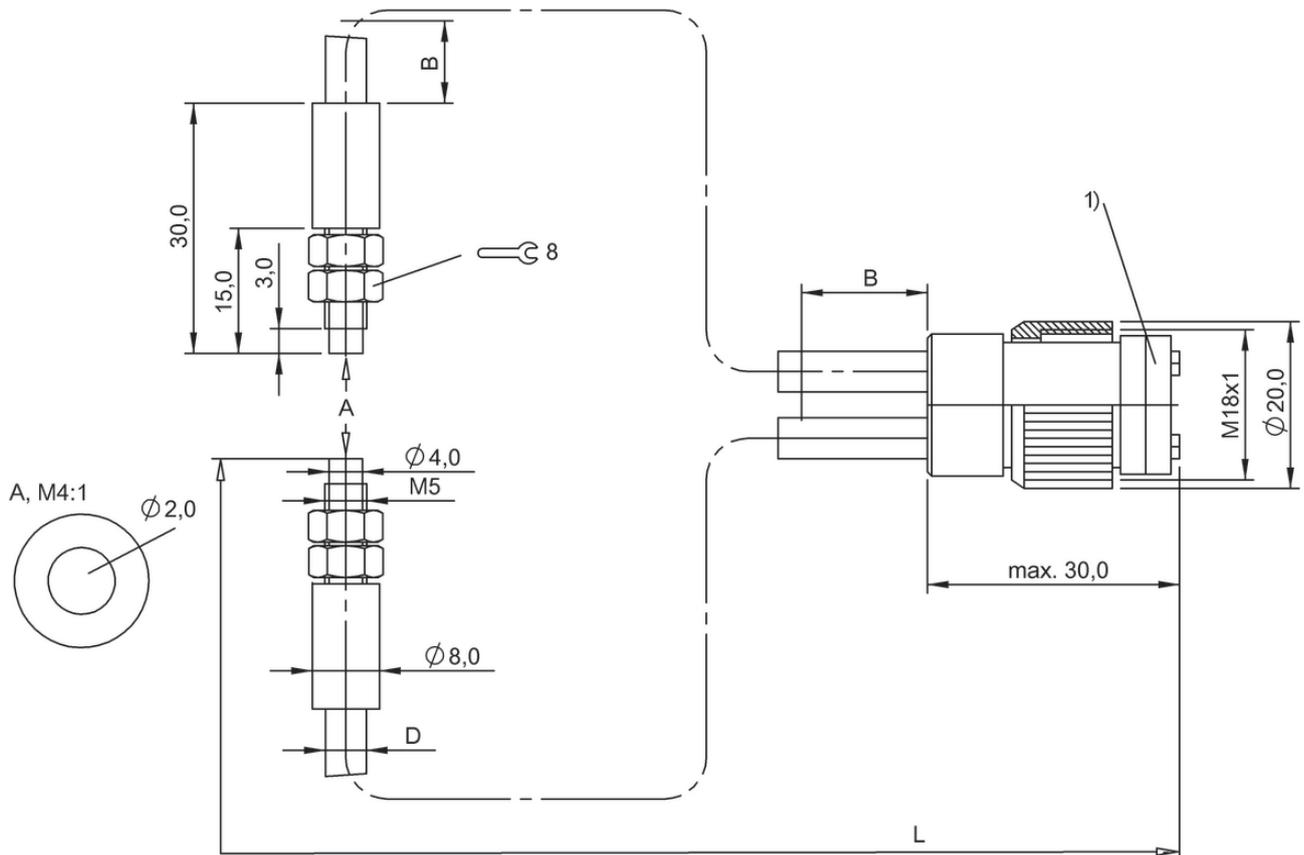


	BF0005A BFO D13-XA-JB-EAK-20-02	BF00062 BFO D22-XA-MB-PAK-10-02	BF0005Z BFO D22-XA-CD-EAK-110-02	BF000AR BFO D13-XV-AK-EAK-50-02	BF00060 BFO D22-XA-ED-EAK-250-02
	Ø 3, Standard	Ø 3, thin point, 90° optics	6x19, light grid	13x19.7, 90° optics	5.5x38, 90°-light grid
	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB	For fiber optic base units BFB
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	2.00 m	2.00 m	2.00 m	2.00 m	2.00 m
	PE	PVC	PE	PE	PE
	130 mm	35 mm	100 mm	6 mm	90 mm
	-55...70 °C	-40...70 °C	-55...70 °C	-55...70 °C	-55...70 °C
	Stainless steel (1.4305)	Stainless steel	Brass nickel plated	Plastic	ABS
	Ø 0.5 mm (2x)	Ø 0.5 mm (2x)	Ø 0.25 mm (32x)	Ø 0.5 mm (2x)	Ø 0.25 mm (32x)
	Adjacent to one another	Adjacent to one another	Row	Distance	Row
	IP65	IP65	IP65	IP65	IP65
	Page 583	Page 583	Page 583	Page 583	Page 584



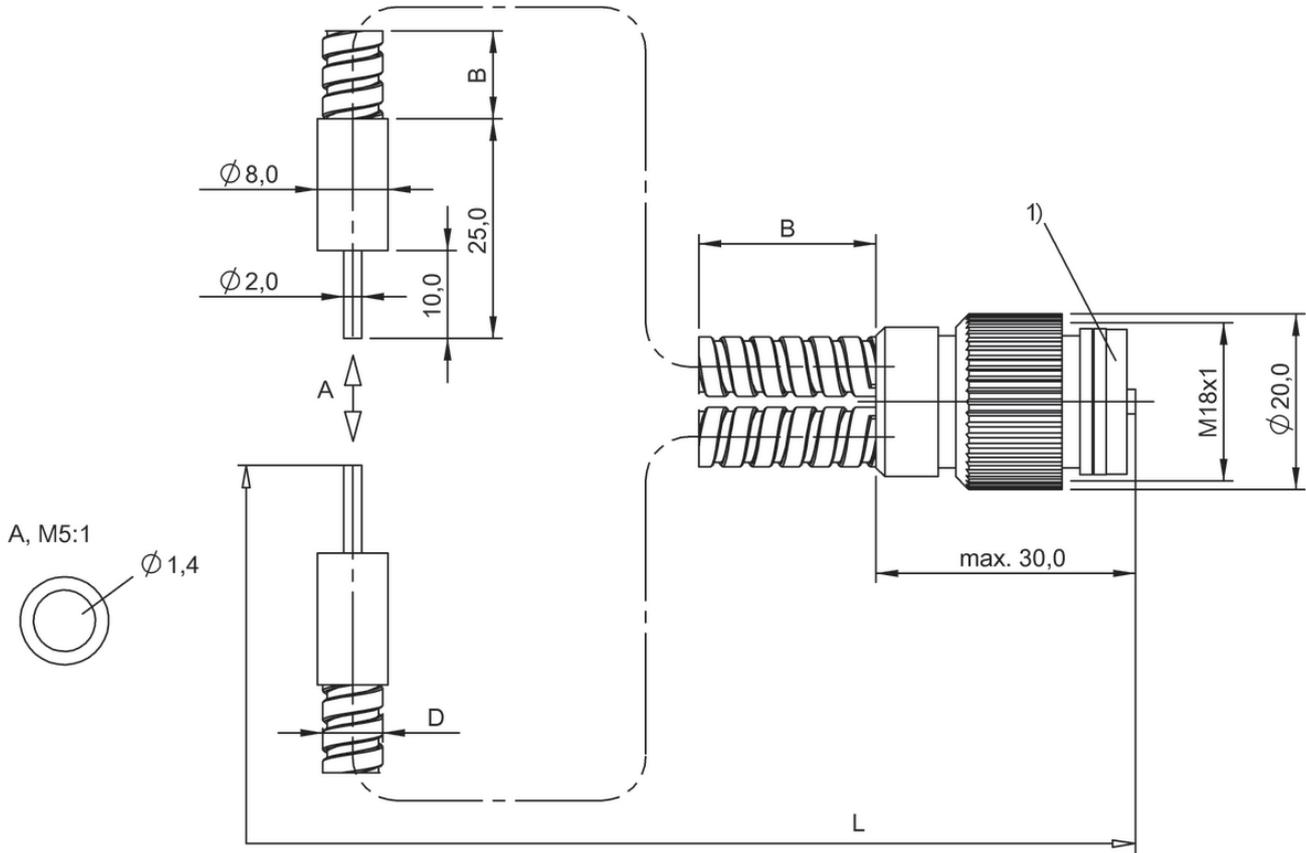
1) Disc removable

BF0000F, BF0000H, BF0000J



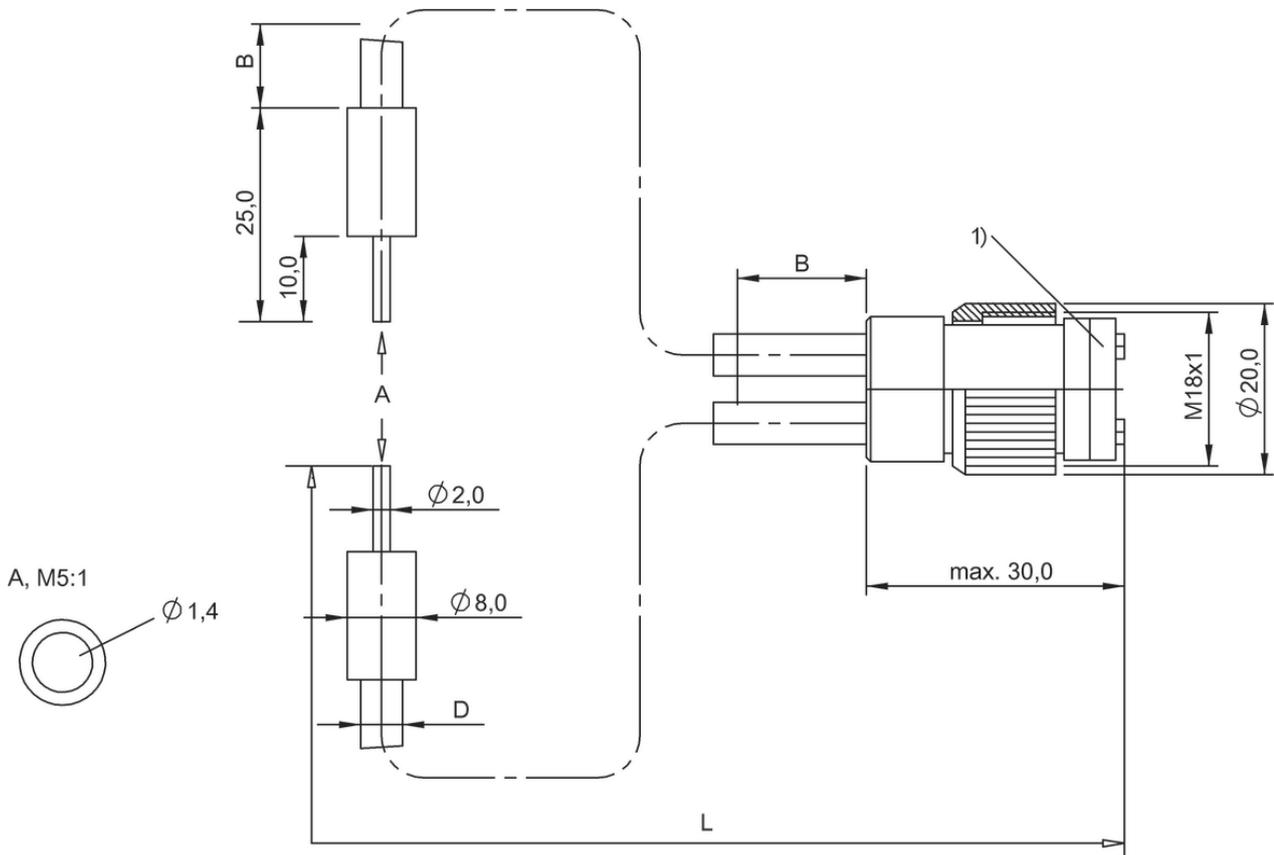
1) Disc removable

BF0000M, BF0000N



1) Disc removable

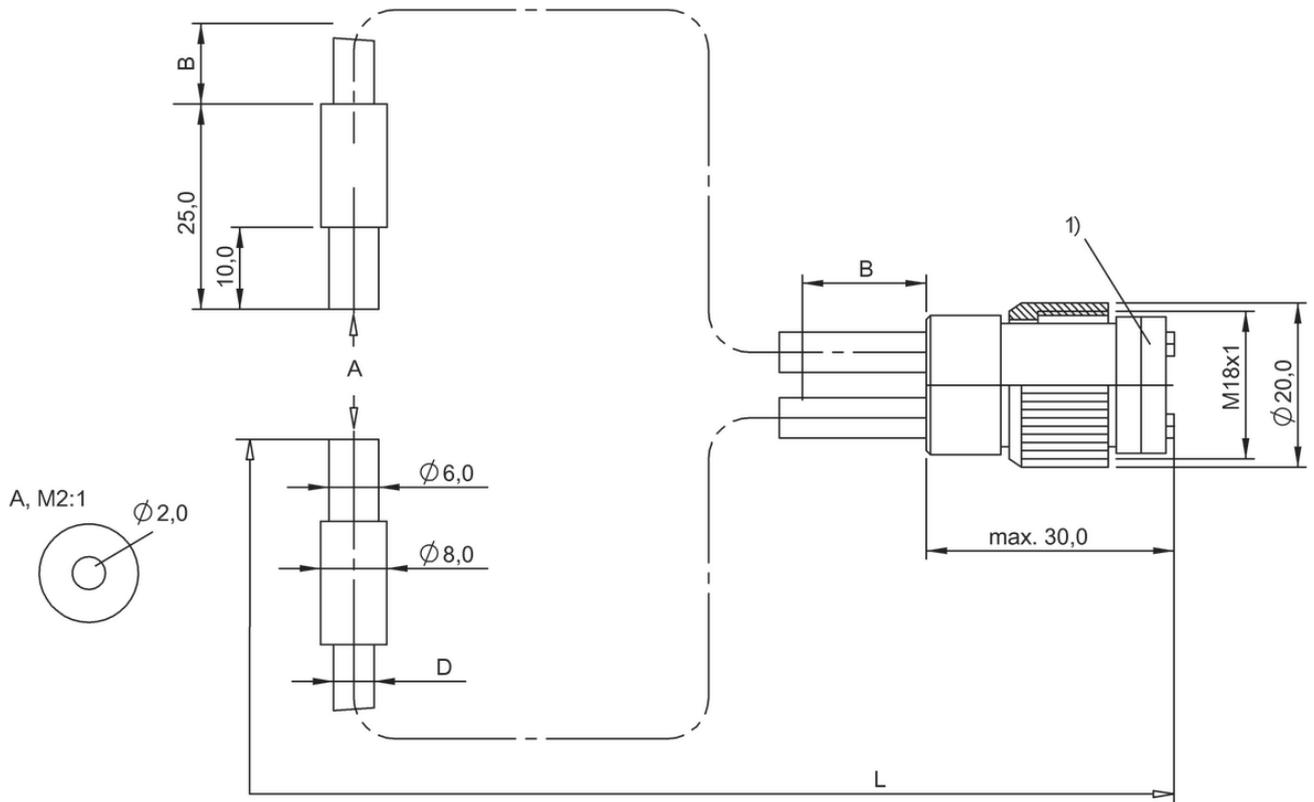
BF0001Z, BF00020



1) Disc removable

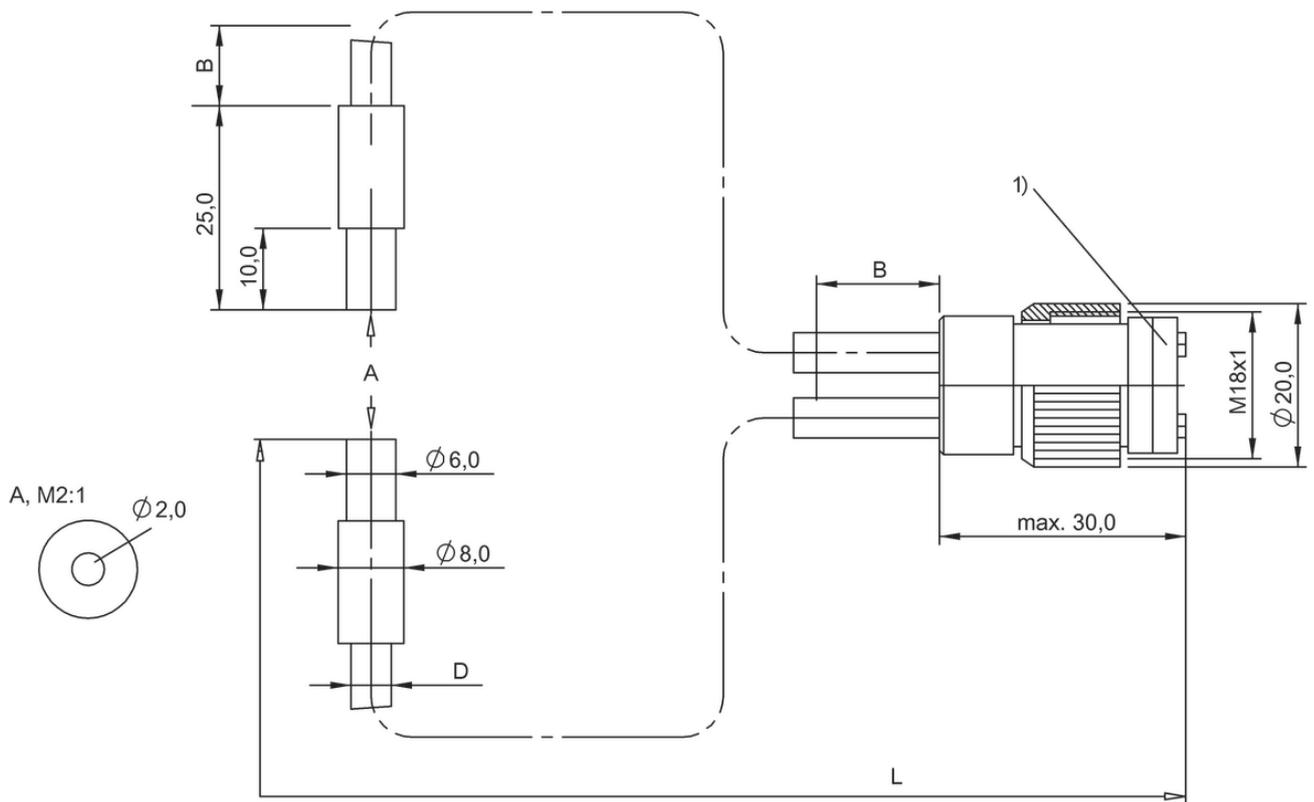
BF00023, BF00024

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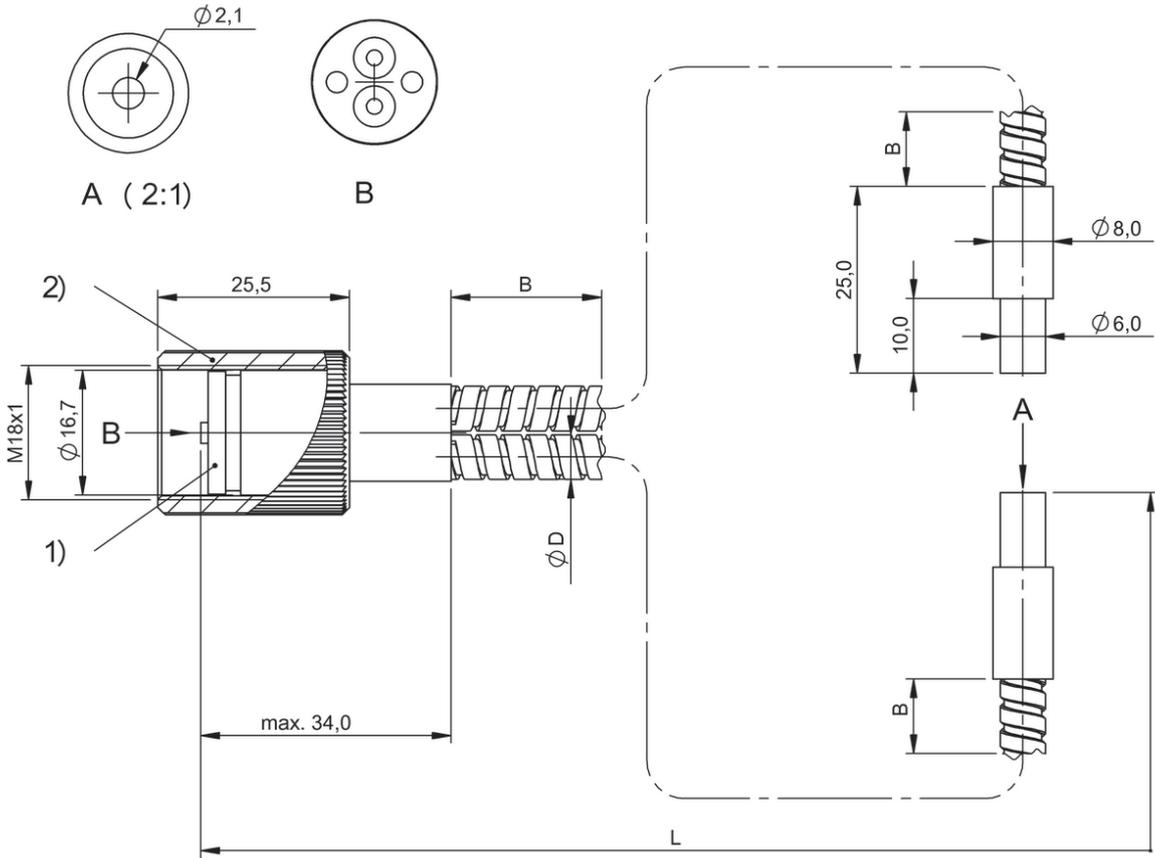
1) Disc removable

BF0000U, BF0000W



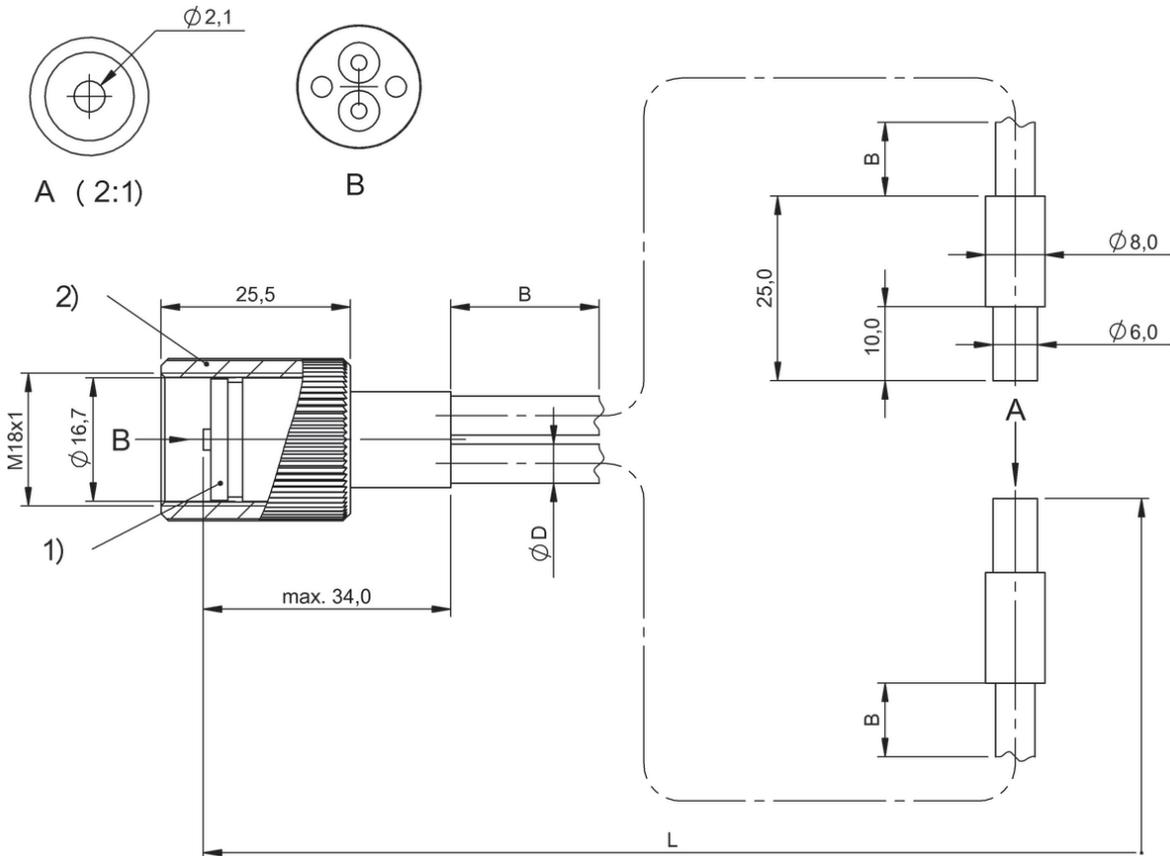
1) Disc removable

BF0000Z



1) Disc removable, 2) cap nut

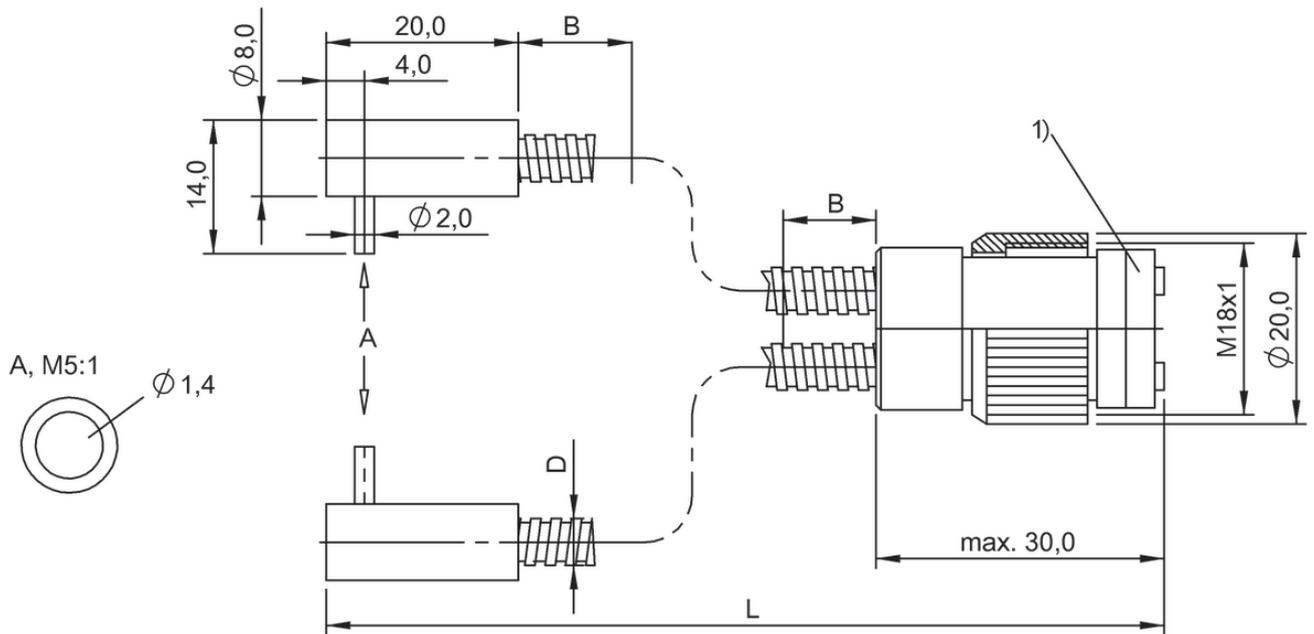
BF0003Y, BF0003Z



1) Disc removable, 2) cap nut

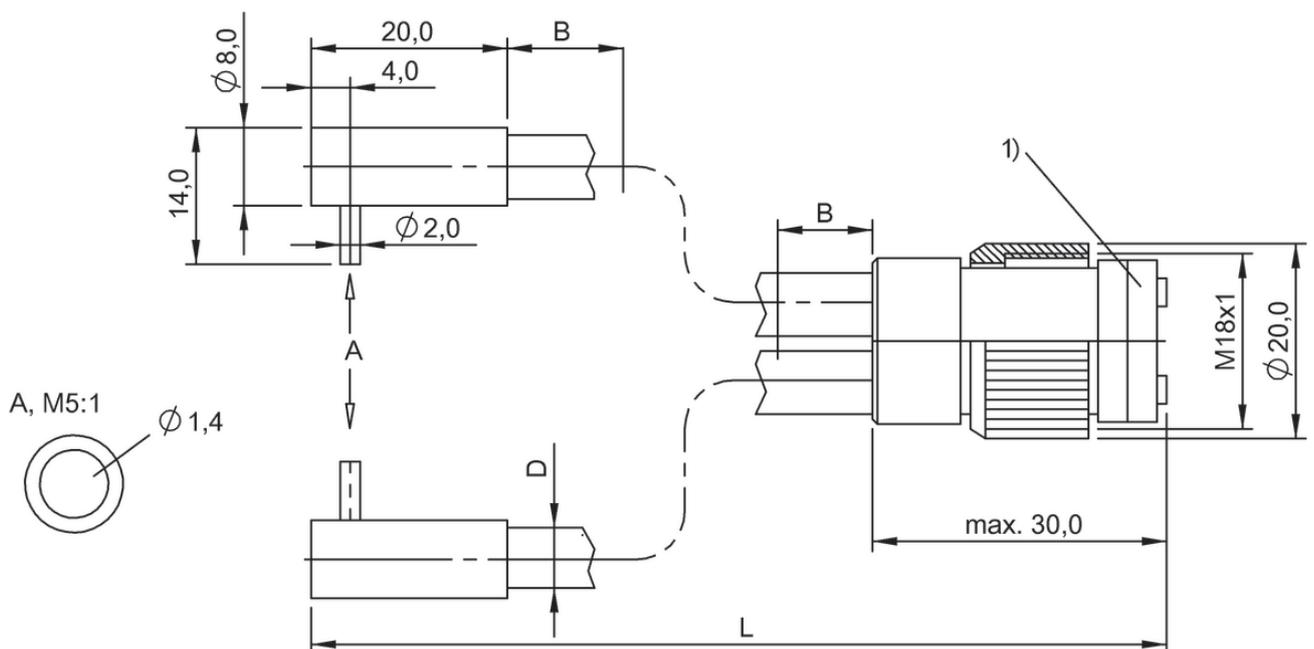
BF00042

Do you need more details? Our Product Finder at www.balluff.com provides you with product-specific information, including technical drawings, data sheets, user guides and more for each individual product. All items are available for download.



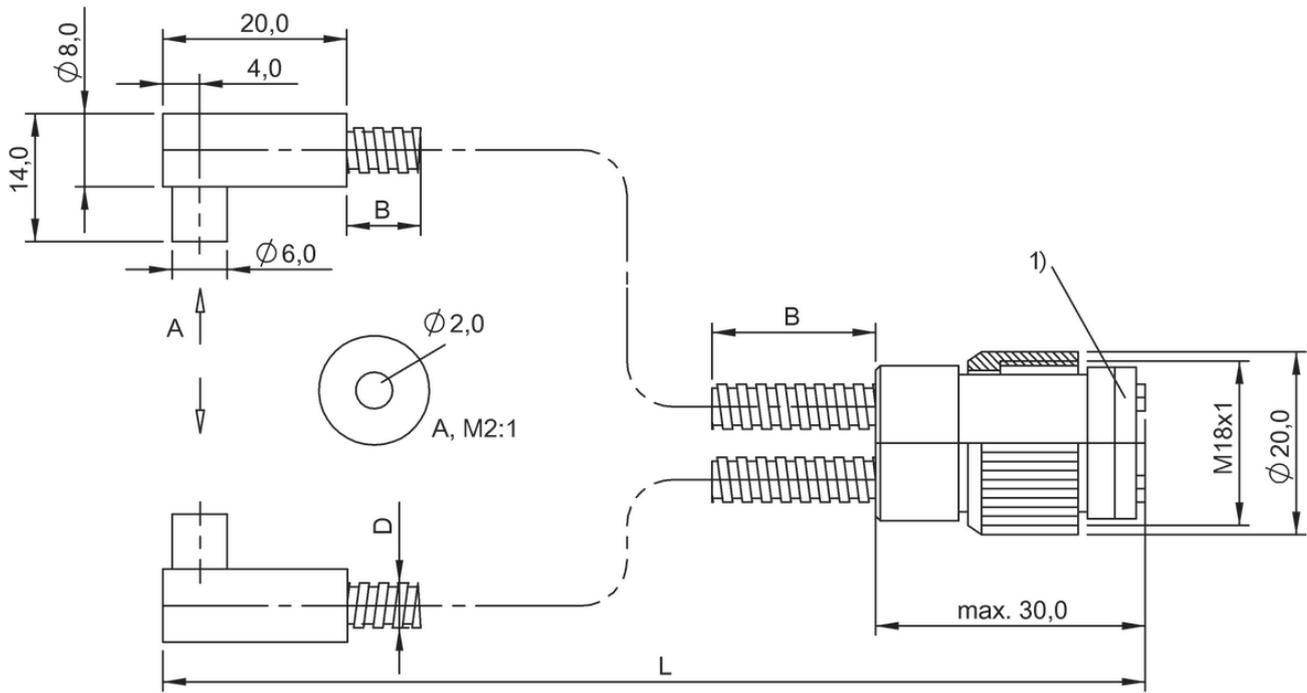
1) Disc removable

BF0001P, BF0001R



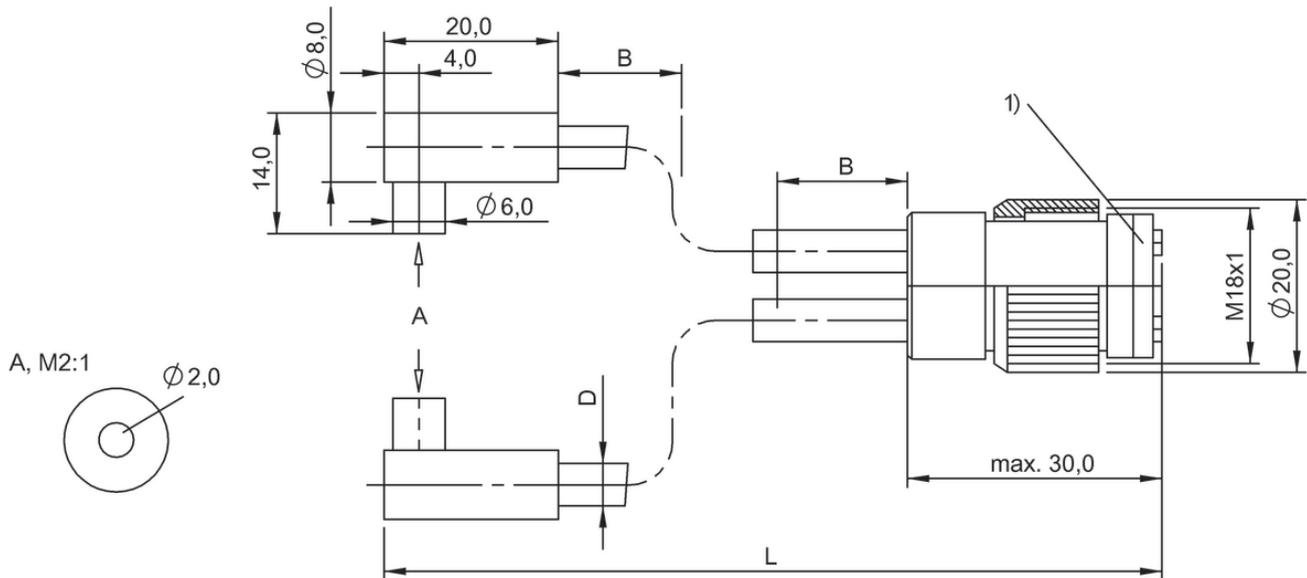
1) Disc removable

BF0001U, BF0001W



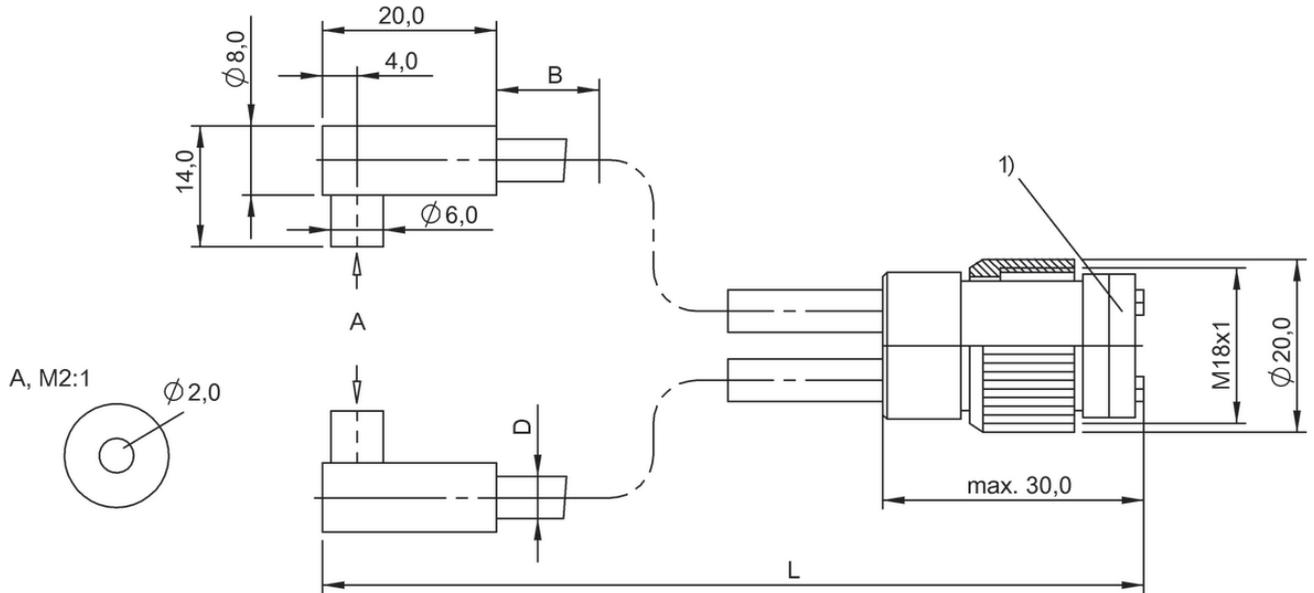
1) Disc removable

BF00013, BF00014



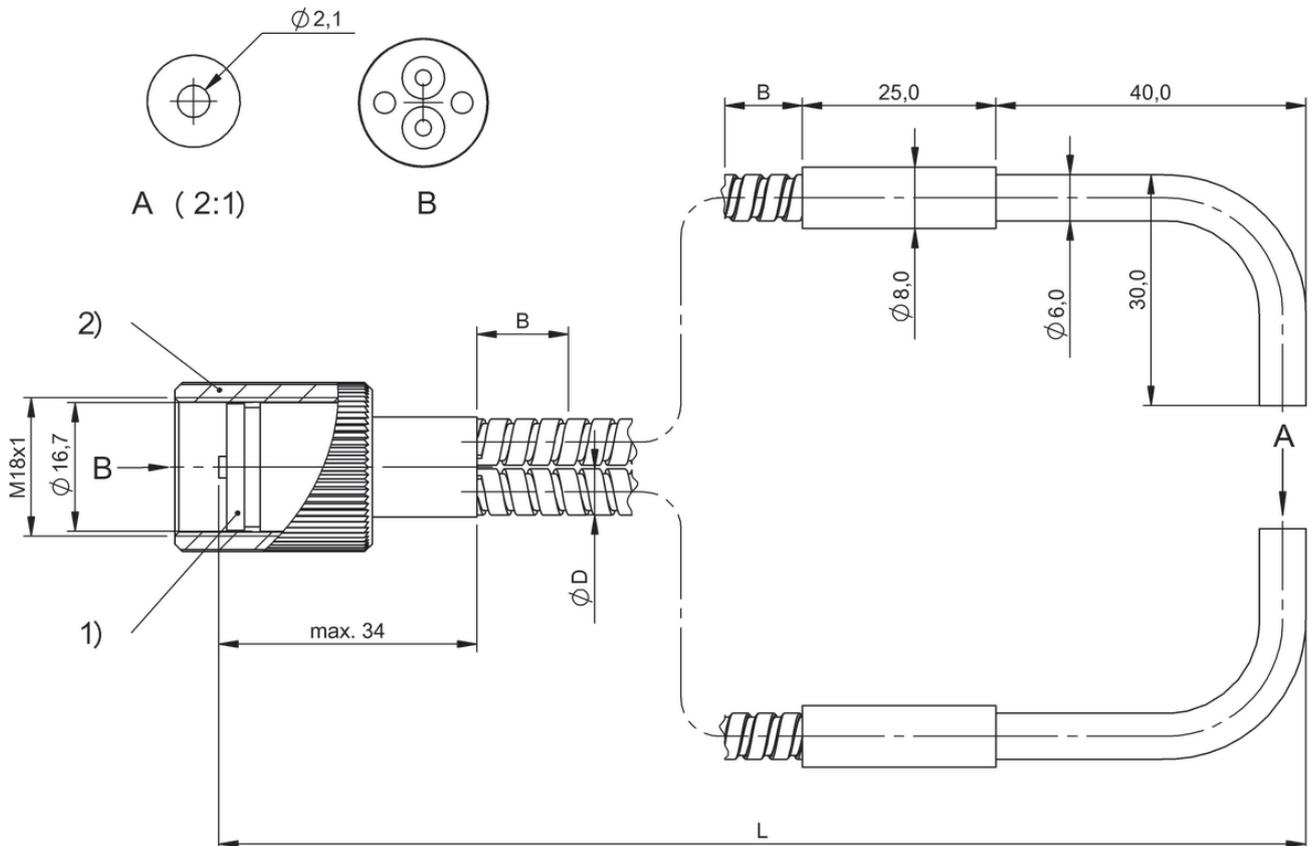
1) Disc removable

BF00019, BF0001A



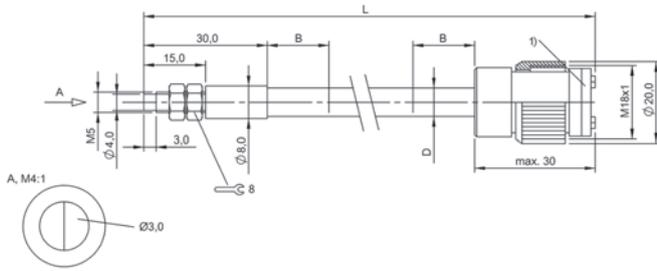
1) Disc removable

BF0001F, BF0001H



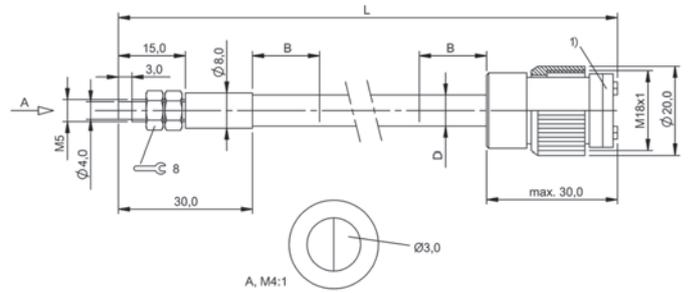
1) Disc removable, 2) cap nut

BF00047, BF00049, BF0004A



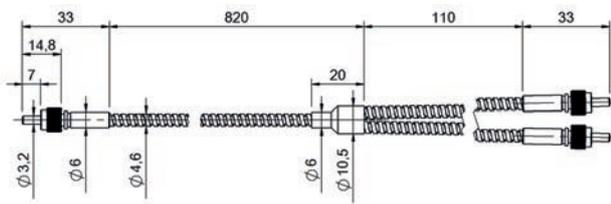
1) Disc removable

BF0002F, BF0002H

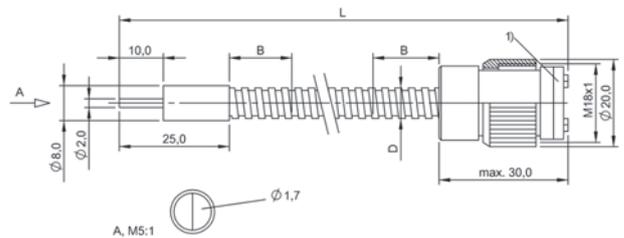


1) Disc removable

BF0002M, BF0002N

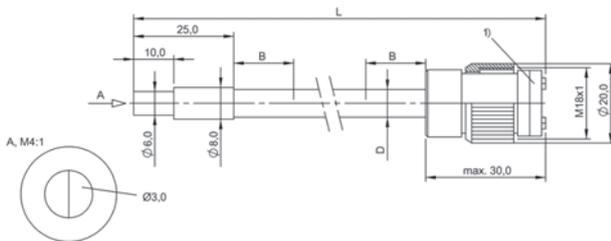


BF0000H8



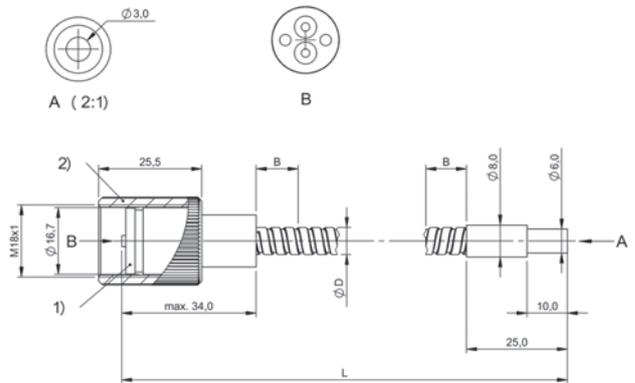
1) Disc removable

BF0003R, BF0003T



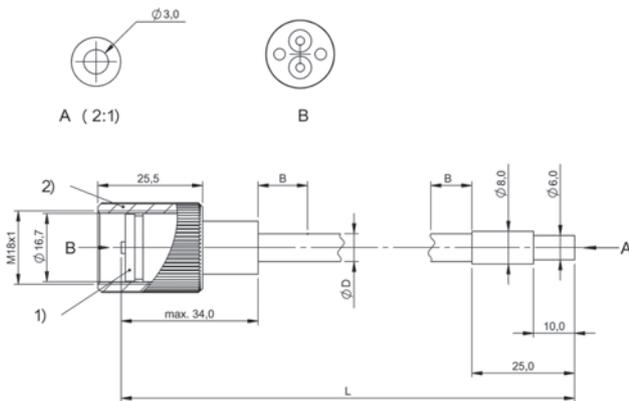
1) Disc removable

BF00002U, BF00002W



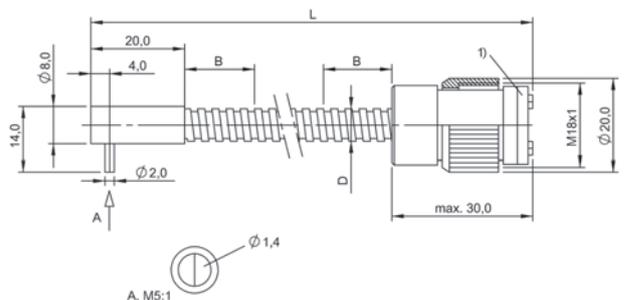
1) Disc removable, 2) cap nut

BF00004M



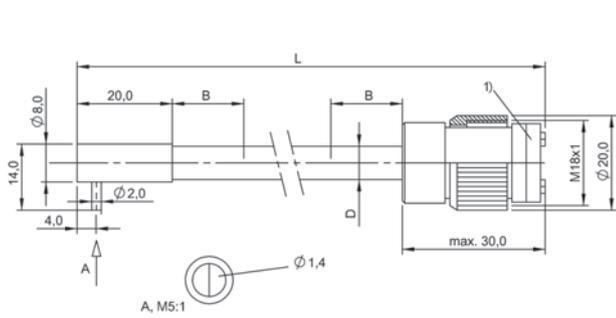
1) Disc removable, 2) cap nut

BF00004P, BF00004R



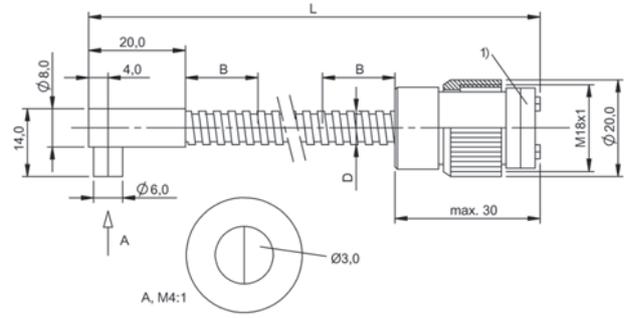
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BF00003H, BF00003J



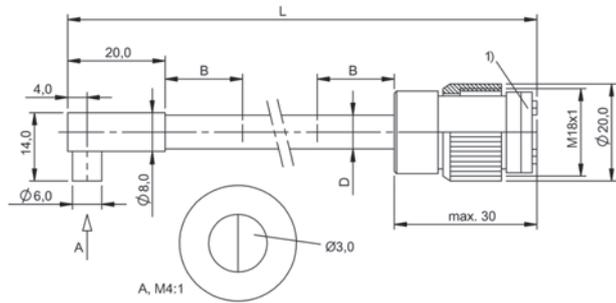
1) Disc removable

BF0003M, BF0003N



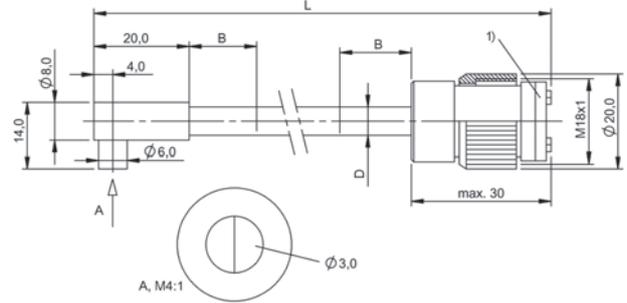
1) Disc removable

BF00031, BF00032



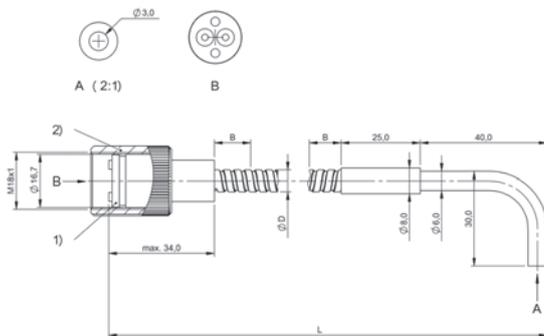
1) Disc removable

BF00037, BF00038



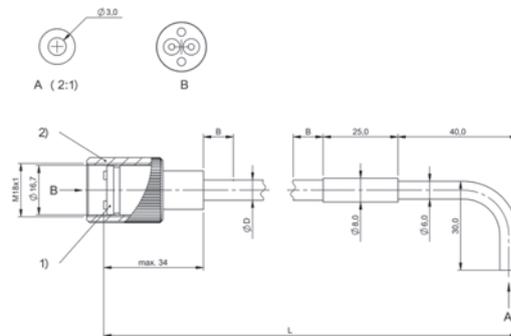
1) Disc removable

BF0003C, BF0003E



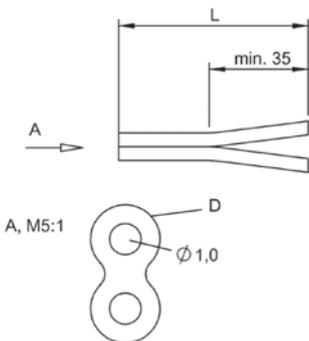
1) Disc removable, 2) cap nut

BF0004U

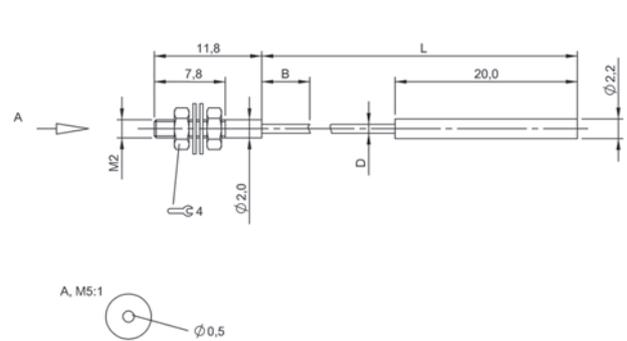


1) Disc removable, 2) cap nut

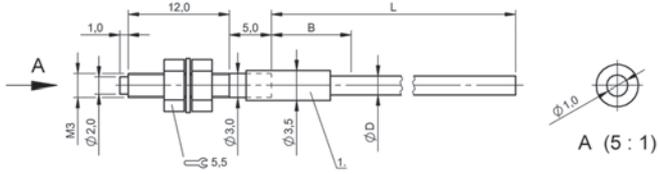
BF0004Y, BF0004Z



BF0005Y

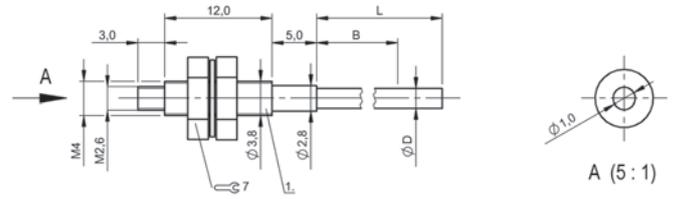


BF0000C



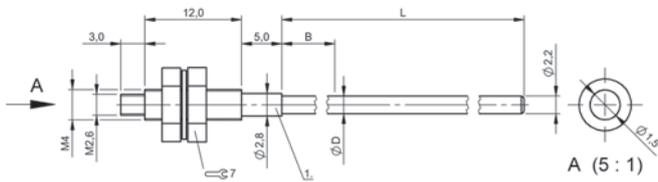
1) Protective tube

BF0005R



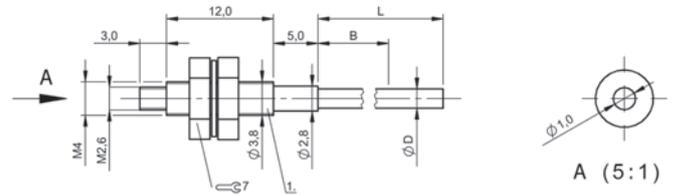
1) Protective tube

BF0005M



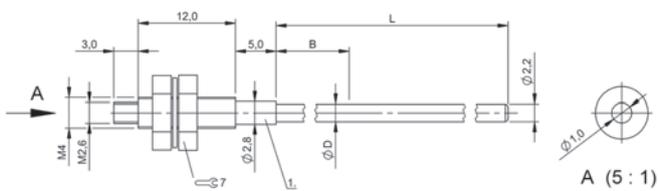
1) Protective tube

BF0005U



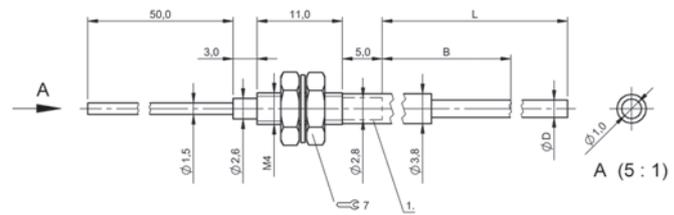
1) Protective tube

BF0005T



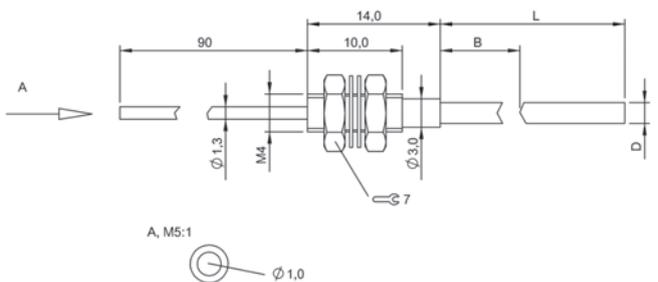
1) Protective tube

BF0005W

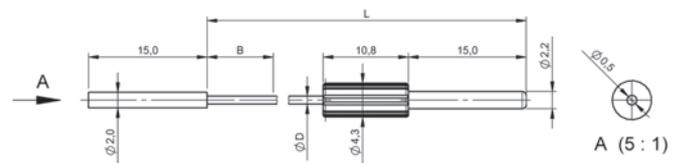


1) Protective tube

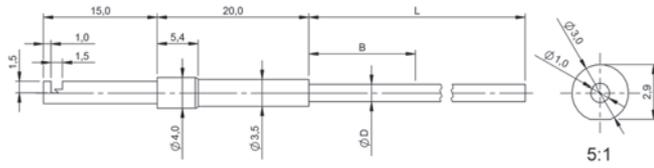
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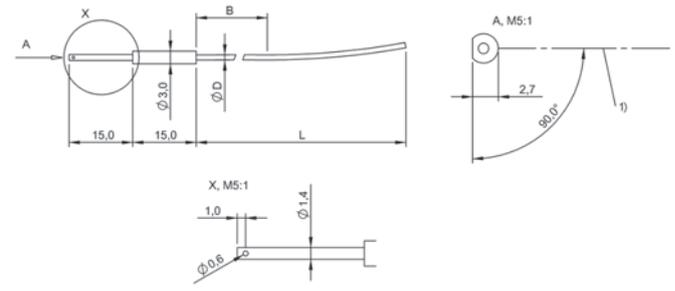
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BF00051

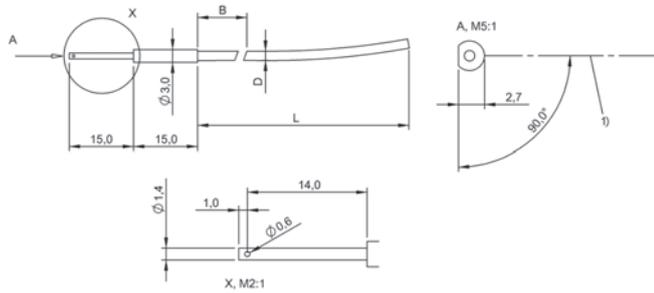


BF0004Y



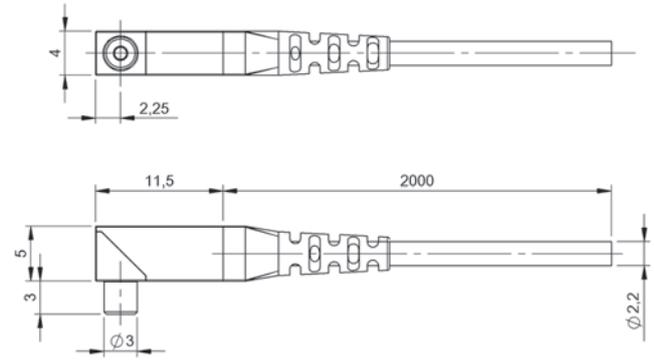
1) Optical axis

BF00057

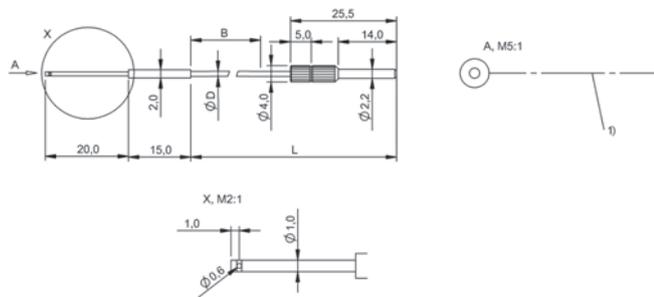


1) Optical axis

BF0005P

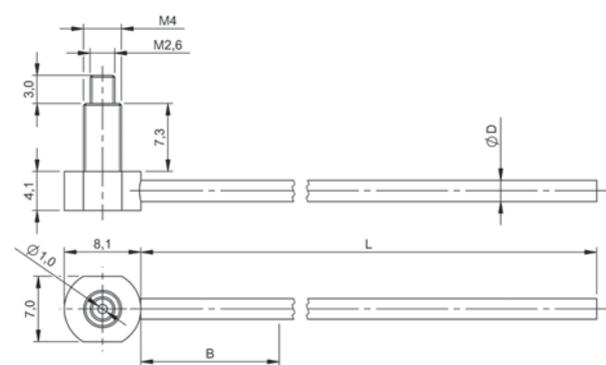


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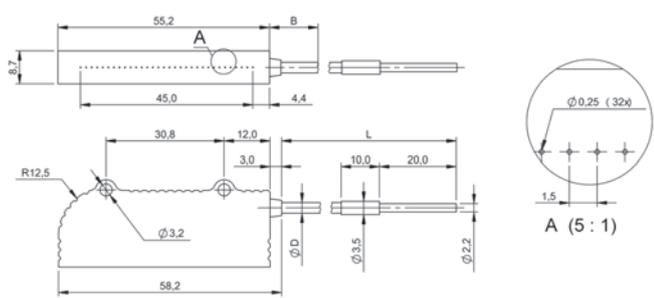


1) Optical axis

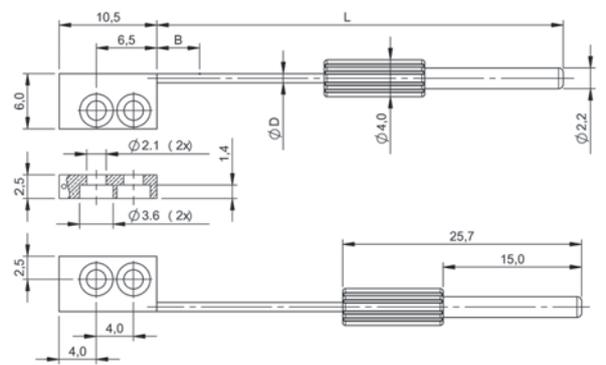
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BF000H6



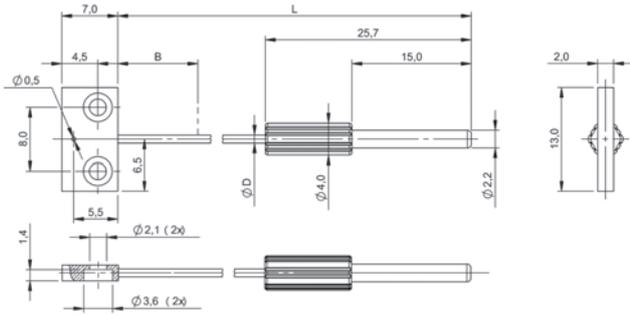
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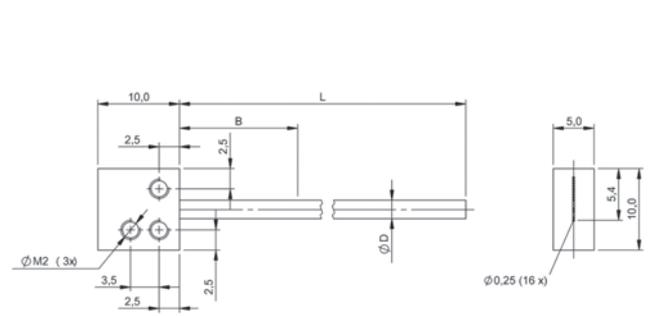
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BF000C8

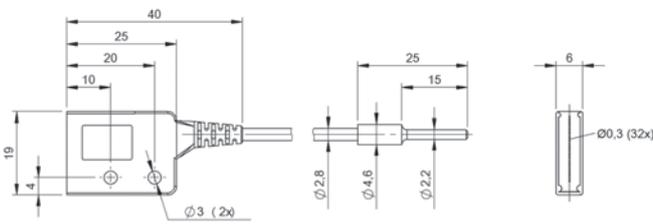
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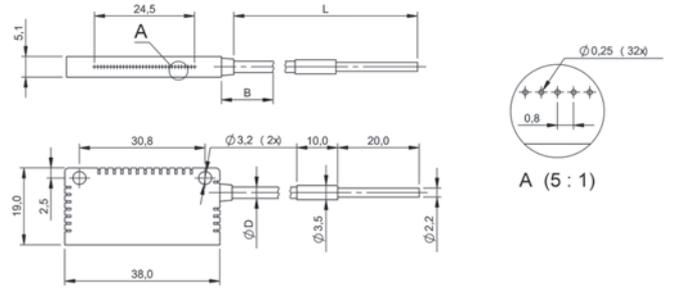
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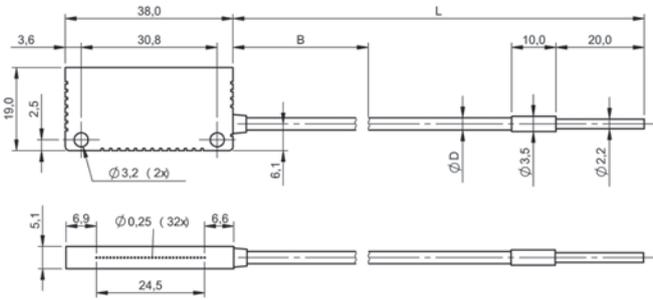
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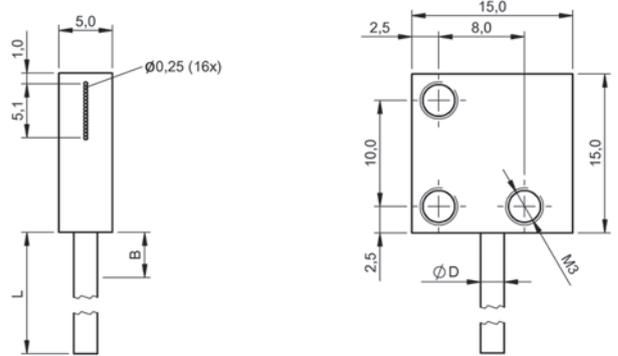
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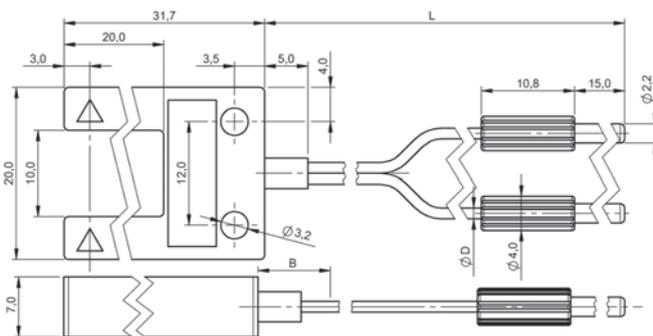
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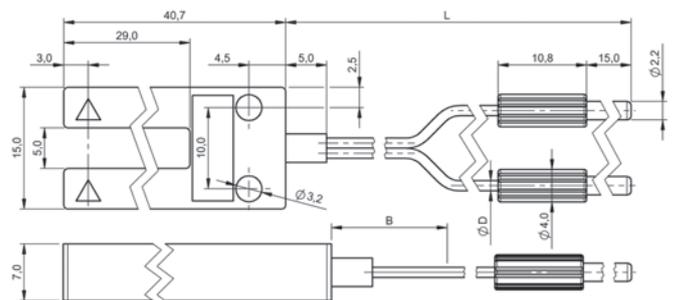
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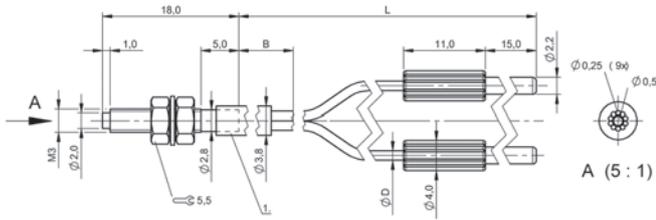
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BF00059

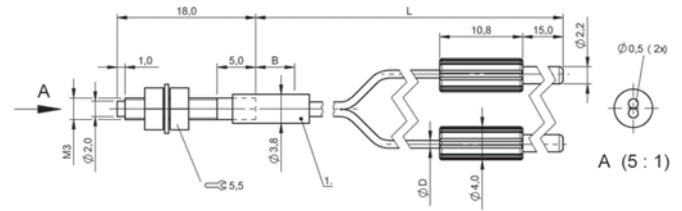


BF00058



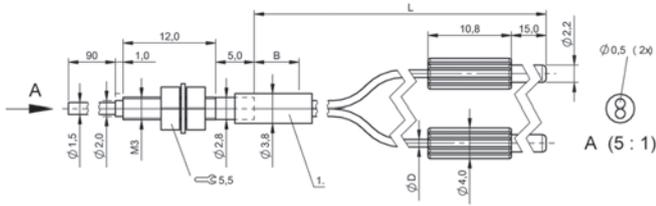
1) Protective tube

BF0005E



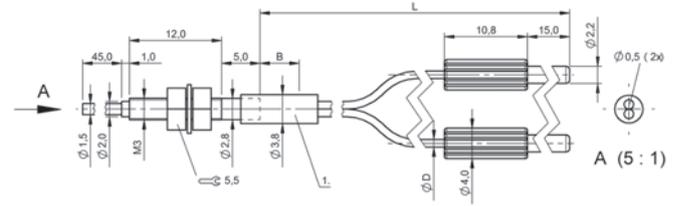
1) Protective tube

BF00054



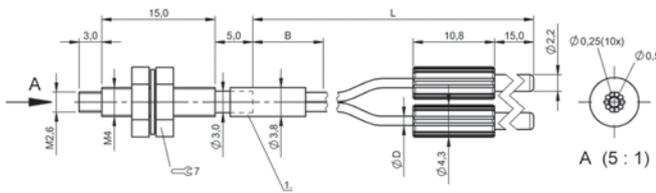
1) Protective tube

BF000C3



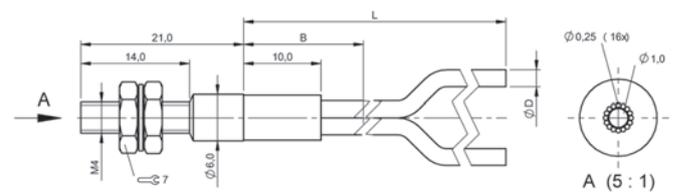
1) Protective tube

BF00052

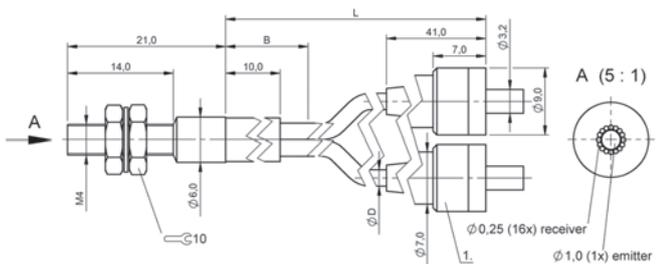


1) Protective tube

BF0005C

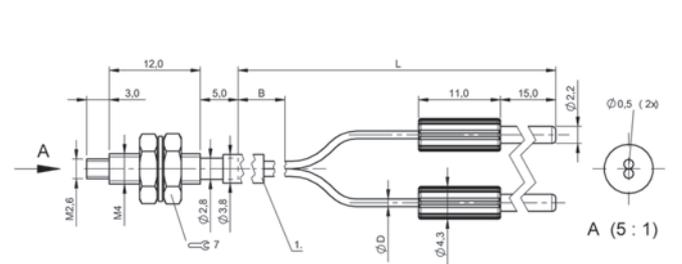


BF00006



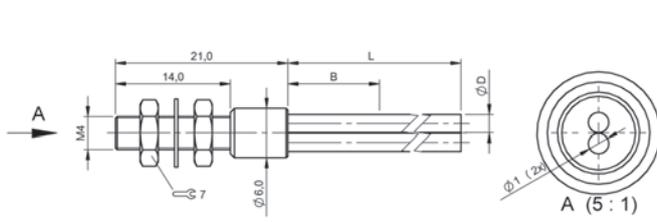
1) SMA 905

BF000C9

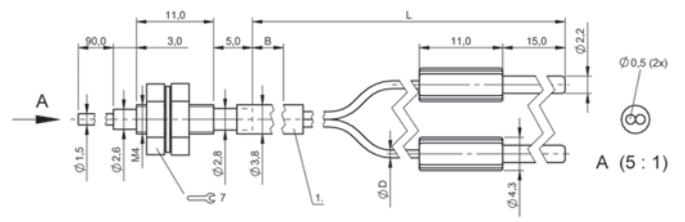


1) Protective tube

BF00055

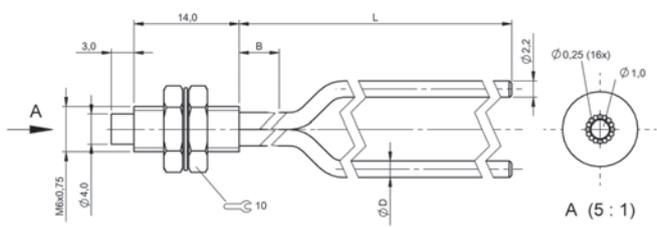


BF00005

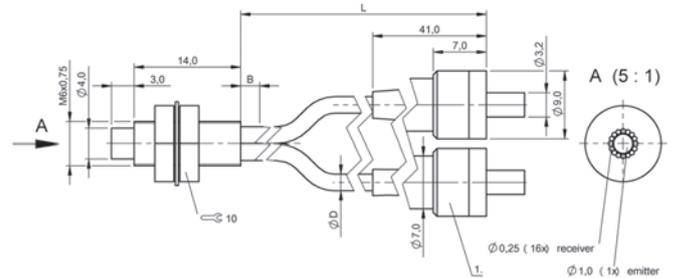


1) Protective tube

BF00053

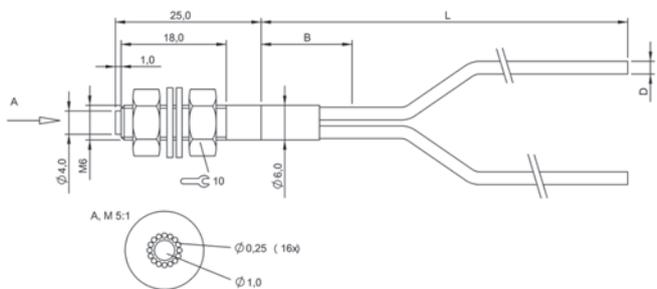


BF00066

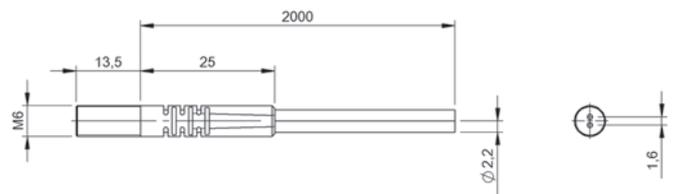


1) SMA 905

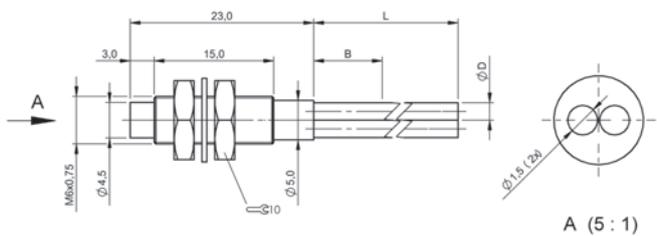
BF000H4, BF000FP, BF000C4, BF000FN



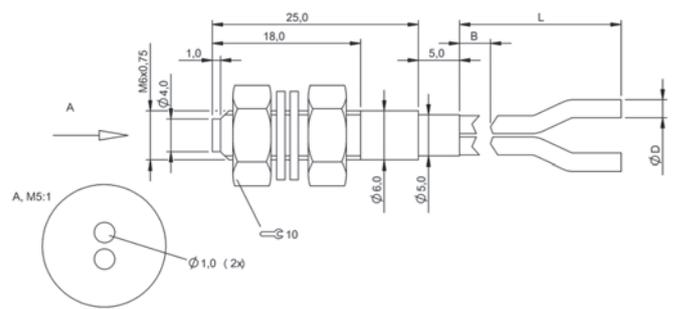
BF00007



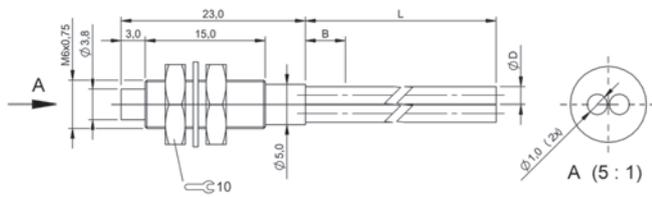
BF000H5



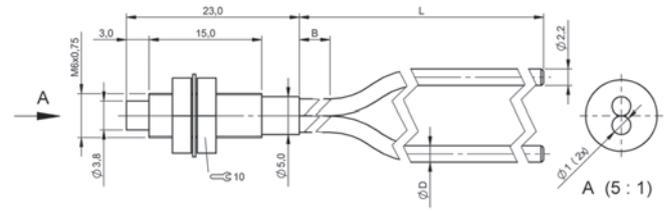
BF00064



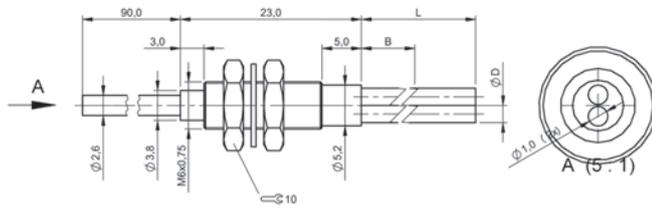
BF00003



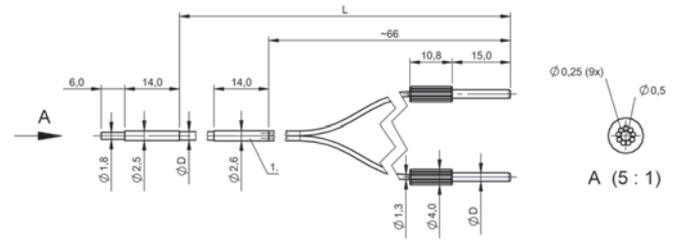
BF00063



BF00065

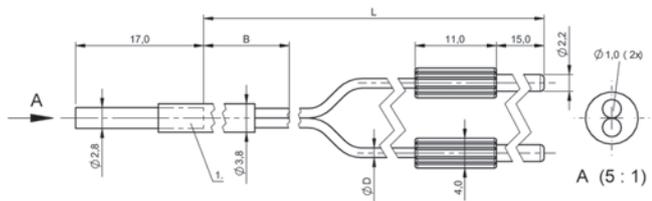


BF00004



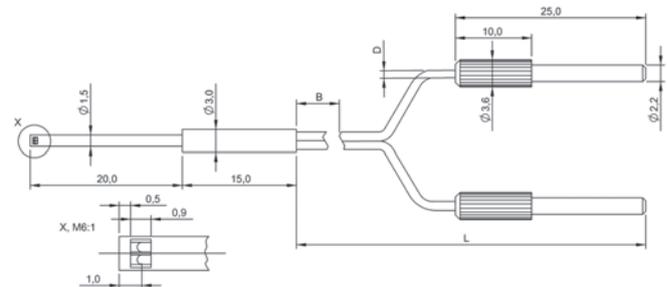
1) Protective tube

BF000AT

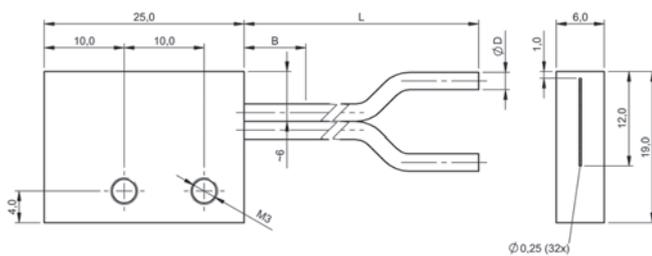


1) Protective tube

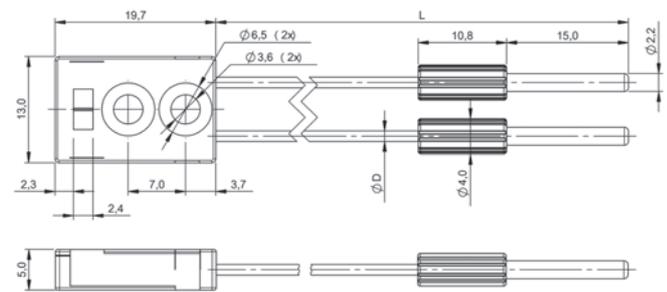
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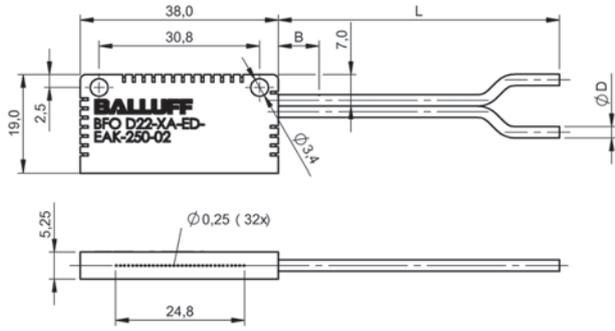
BF00062



BF0005Z



BF000AR



BF00060



	BOH005J BOH TI-G02-001-01-S49F	BOH000C BOH TK-G02-001-01-S49F	BOH000A BOH TR-G02-001-01-S49F	
Series	G02	G02	G02	
Dimension	Ø 2 x 8 mm	Ø 2 x 8.6 mm	Ø 2 x 8.6 mm	
Interface	for switching amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	divergent, max. 3.5°	Divergent	
Light type	Infrared	microSPOT-LED red light	LED, red light	
Light spot size	—	Ø 10 mm at 100 mm	—	
Range	0...300 mm	0...500 mm	0...300 mm	
Connection	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Material sensing surface	Epoxy	Epoxy	Epoxy	
Approval/Conformity	CE	CE	CE	
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	BOH000J BOH TJ-G02-001-01-S49F	BOH000E BOH TK-M03-005-01-S49F	BOH0061 BOH TI-M03-001-01-S49F	BOH000U BOH TK-M03-001-01-S49F	BOH000T BOH TR-M03-001-01-S49F
	G02	M03	M03	M03	M03
	Ø 2 x 8.6 mm	6 x 5.5 x 7.6 mm	Ø 3 x 8 mm	Ø 3 x 8.7 mm	Ø 3 x 8.7 mm
	for switching amplifier				
	Optical sensor head				
	Through-beam sensor				
	Light absorption with water	—	—	—	—
	Divergent	divergent, max. 3.5°	Divergent	divergent, max. 3.5°	Divergent
	Infrared for water detection	microSPOT-LED red light	Infrared	microSPOT-LED red light	LED, red light
	—	Ø 10 mm at 100 mm	—	Ø 10 mm at 100 mm	—
	0...250 mm	0...500 mm	0...300 mm	0...500 mm	0...300 mm
	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR
	Stainless steel				
	PMMA	Epoxy	Epoxy	Epoxy	Epoxy
	CE	CE	CE	CE	CE
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	BOH00E6 BOH TK-M04-020-01-S49F	BOH00E5 BOH TR-M04-020-01-S49F	BOH0010 BOH TR-G05-005-02-S49F	
Series	M04	M04	G05	
Dimension	Ø 4 x 12 mm	Ø 4 x 12 mm	Ø 5 x 13 mm	
Interface	for switching amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	divergent, max. 2.5°	Divergent	Divergent	
Light type	microSPOT-LED red light	LED, red light	LED, red light	
Light spot size	Ø 8.00 mm at 100 mm	27 x 27 mm at 100 mm	—	
Range	0...2000 mm	0...2000 mm	0...4 m	
Connection	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 2.00 m, PUR	
Housing material	Nickel-plated brass	Nickel-plated brass	Stainless steel	
Material sensing surface	PMMA	PMMA	PMMA	
Approval/Conformity	CE	—	CE	
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	BOH000F BOH TK-M05-006-01-S49F	BOH0065 BOH TI-M05-003-01-S49F	BOH0013 BOH TK-M05-003-01-S49F	BOH000Y BOH TR-M05-003-01-S49F	BOH006H BOH TI-M06-002-01-S49F
	M5	M5	M5	M5	M6
	8.8 x 8 x 8 mm	Ø 5 x 10 mm	Ø 5 x 12.5 mm	Ø 5 x 12.5 mm	Ø 6 x 12 mm
	for switching amplifier				
	Optical sensor head				
	Through-beam sensor				
	—	—	—	—	—
	divergent, max. 2.5°	Divergent	divergent, max. 2.5°	Divergent	Divergent
	microSPOT-LED red light	Infrared	microSPOT-LED red light	LED, red light	Infrared
	Ø 8 mm at 100 mm	—	Ø 8 mm at 100 mm	—	—
	0...2 m	0...1 m	0...2 m	0...1 m	0...4 m
	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR
	Brass	Brass	Brass	Brass	Brass
	Glass	PMMA	PMMA	PMMA	PMMA
	CE	CE	CE	CE	CE
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	BOH000K BOH TR-M06-002-02-S49F	BOH000H BOH TL-M06-007-02-S49F	BOH0012 BOH TK-M08-004-02-S49F	
Series	M6	M6	M8	
Dimension	Ø 6 x 13 mm	Ø 6 x 17 mm	Ø 8 x 20 mm	
Interface	for switching amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	—	
Beam characteristic	Divergent	Collimated	divergent, max. 1°	
Light type	LED, red light	Laser red light	microSPOT-LED red light	
Light spot size	—	Ø 4.5 mm at 2 m	Ø 18 mm at 1 m	
Range	0...4 m	0...4 m	0...4 m	
Connection	Cable with connector, M8x1 connector, 2.00 m, PUR	Cable with connector, M8x1 connector, 2.00 m, PUR	Cable with connector, M8x1 connector, 2.00 m, PUR	
Housing material	Brass	Brass	Brass	
Material sensing surface	PMMA	Glass	Glass	
Approval/Conformity	CE	CE	CE	
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	BOH006P BOH TI-Q06-001-01-S49F	BOH000P BOH TK-Q06-001-01-S49F	BOH000N BOH TR-Q06-001-01-S49F	BOH000R BOH TJ-Q06-001-01-S49F	BOH00EL BOH AI-R034-025-01-S49F
	Q06	Q06	Q06	Q06	—
	12 x 6 x 6 mm	8 x 28 x 12 mm			
	for switching amplifier	for switching amplifier	for switching amplifier	for switching amplifier	for switching amplifier
	Optical sensor head	Optical sensor head	Optical sensor head	Optical sensor head	Optical sensor head
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor
	—	—	—	Light absorption with water	Light array
	Divergent	divergent, max. 2.5°	Divergent	Divergent	Divergent
	Infrared	microSPOT-LED red light	LED, red light	Infrared for water detection	Infrared
	—	Ø 8 mm at 100 mm	—	—	—
	0...1 m	0...2 m	0...1 m	0 m...500 mm	100 mm
	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1 m, PUR
	Brass	Brass	Brass	Brass	PA 6
	PMMA	PMMA	PMMA	PMMA	PMMA
	CE	CE	CE	CE	CE
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	BOH001Z BOH TK-R003-007-01-S49F	BOH0020 BOH TR-R010-008-02-S49F	BOH007A BOH TJ-R010-008-01-S49F	
Series	R003	R010	R010	
Dimension	5.5 x 3 x 5.2 mm	12 x 6 x 8 mm	12 x 6 x 8 mm	
Interface	for switching amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Through-beam sensor	Through-beam sensor	Through-beam sensor	
Special optical feature	—	—	Light absorption with water	
Beam characteristic	divergent, max. 3.5°	Divergent	Divergent	
Light type	microSPOT-LED red light	LED, red light	Infrared	
Light spot size	Ø 10 mm at 100 mm	—	—	
Range	0 m...500 mm	0...4 m	0 m...900 mm	
Connection	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 2.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	
Housing material	Brass	Brass	Brass	
Material sensing surface	Epoxy	PMMA	PMMA	
Approval/Conformity	CE	CE	CE	
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	BOH002E BOH TK-R018-002-01-S49F	BOH002C BOH TK-R018-001-01-S49F	BOH002H BOH TK-R027-004-01-S49F	BOH002F BOH TK-R027-003-01-S49F	BOH0024 BOH AR-R113-010-01-S49F
	R018	R018	R027	R027	R113
	13.5 x 3 x 13 mm	13 x 3 x 13.5 mm	18 x 4.8 x 15 mm	15 x 4.8 x 18 mm	75 x 10 x 15 mm
	for switching amplifier	for switching amplifier	for switching amplifier	for switching amplifier	for analog amplifier
	Optical sensor head				
	Through-beam sensor				
	—	—	—	—	Light array
	divergent, max. 3.5°	divergent, max. 3.5°	divergent, max. 2.5°	divergent, max. 2.5°	—
	microSPOT-LED red light	microSPOT-LED red light	microSPOT-LED red light	microSPOT-LED red light	LED, red light
	Ø 10 mm at 100 mm	Ø 10 mm at 100 mm	Ø 8 mm at 100 mm	Ø 8 mm at 100 mm	—
	0 m...500 mm	0 m...500 mm	0...2 m	0...2 m	0...200 mm
	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR
	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Glass	Glass	Glass	Glass	PMMA
	CE	CE	CE	CE	CE
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	BOH002M BOH AI-R165-011-01-S49F	BOH0002 BOH DI-G02-001-01-S49F	BOH0003 BOH DR-G02-001-01-S49F	
Series	R165	G02	G02	
Dimension	110 x 10 x 15 mm	Ø 2 x 8 mm	Ø 2 x 8 mm	
Interface	for analog amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Through-beam sensor	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	Light array	—	—	
Beam characteristic	—	Divergent	Divergent	
Light type	Infrared	Infrared	LED, red light	
Light spot size	—	—	—	
Range	0...500 mm	0...12 mm	0...12 mm	
Connection	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	
Housing material	Aluminum	Stainless steel	Stainless steel	
Material sensing surface	PMMA	Epoxy	Epoxy	
Approval/Conformity	CE	CE	CE	
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	BOH0004 BOH DI-M03-001-01-S49F	BOH0009 BOH DR-M03-001-01-S49F	BOH003C BOH DI-G05-002-01-S49F	BOH0006 BOH DK-G05-002-01-S49F	BOH0005 BOH DR-G05-002-01-S49F
	M03	M03	G05	G05	G05
	Ø 3 x 8 mm	Ø 3 x 8 mm	Ø 5 x 12 mm	Ø 5 x 12 mm	Ø 5 x 12 mm
	for switching amplifier				
	Optical sensor head				
	Diffuse sensor, energetic				
	—	—	—	—	—
	Divergent	Divergent	Divergent	divergent, max. 3.5°	Divergent
	Infrared	LED, red light	Infrared	microSPOT-LED red light	LED, red light
	—	—	—	Ø 5 mm at 50 mm	Ø 14 mm at 50 mm
	0...12 mm	0...12 mm	0...60 mm	0...60 mm	0...60 mm
	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR
	Stainless steel				
	Epoxy	Epoxy	PMMA	PMMA	PMMA
	CE	CE	CE	CE	CE
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	BOH003M BOH DI-M06-002-01-S49F	BOH0008 BOH DK-M06-002-01-S49F	BOH0007 BOH DR-M06-002-01-S49F	
Series	M6	M6	M6	
Dimension	Ø 6 x 12 mm	Ø 6 x 12 mm	Ø 6 x 12 mm	
Interface	for switching amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	Divergent	divergent, max. 3.5°	Divergent	
Light type	Infrared	microSPOT-LED red light	LED, red light	
Light spot size	—	Ø 5 mm at 50 mm	Ø 14 mm at 50 mm	
Range	0...60 mm	0...60 mm	0...60 mm	
Connection	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	
Housing material	Brass	Brass	Brass	
Material sensing surface	PMMA	PMMA	PMMA	
Approval/Conformity	CE	CE	CE	
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	BOH003W BOH DI-Q06-001-01-S49F	BOH000M BOH DK-Q06-001-01-S49F	BOH000L BOH DR-Q06-001-01-S49F	BOH002K BOH DK-R002-006-01-S49F	BOH0028 BOH DK-R018-002-01-S49F
	Q06	Q06	Q06	R002	R018
	12 x 6 x 6 mm	12 x 6 x 6 mm	12 x 6 x 6 mm	8 x 3 x 5.9 mm	13.5 x 3 x 13 mm
	for switching amplifier				
	Optical sensor head				
	Diffuse sensor, energetic				
	—	—	—	—	—
	Divergent	divergent, max. 3.5°	Divergent	divergent, max. 3.5°	divergent, max. 3.5°
	Infrared	microSPOT-LED red light	LED, red light	microSPOT-LED red light	microSPOT-LED red light
	—	Ø 4 mm at 50 mm	Ø 11 mm at 50 mm	Ø 5 mm at 50 mm	Ø 5 mm at 50 mm
	0...60 mm	0...60 mm	0...60 mm	0...70 mm	3.5...60 mm
	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR
	Brass	Brass	Brass	Brass	Aluminum
	PMMA	PMMA	PMMA	Epoxy	Glass
	CE	CE	CE	CE	CE
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	BOH0027 BOH DK-R018-001-01-S49F	BOH002A BOH DK-R027-004-01-S49F	BOH0029 BOH DK-R027-003-01-S49F	
Series	R018	R027	R027	
Dimension	13 x 3 x 13.5 mm	18 x 4.8 x 15 mm	15 x 4.8 x 18 mm	
Interface	for switching amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	—	
Beam characteristic	divergent, max. 3.5°	divergent, max. 2.5°	divergent, max. 2.5°	
Light type	microSPOT-LED red light	microSPOT-LED red light	microSPOT-LED red light	
Light spot size	Ø 5 mm at 50 mm	Ø 8 mm at 100 mm	Ø 8 mm at 100 mm	
Range	3.5...60 mm	3.5...100 mm	3.5...100 mm	
Connection	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	
Housing material	Aluminum	Aluminum	Aluminum	
Material sensing surface	Glass	Glass	Glass	
Approval/Conformity	CE	CE	CE	
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	BOH002L BOH FK-Z001-001-01-S49F	BOH001M BOH AR-F40-001-01-S49F	BOH001N BOH AR-F40-002-01-S49F	BOH001P BOH AR-F80-003-01-S49F	BOH001R BOH TR-T16-001-01-S49F
	Z001	F40	F40	F80	T16
	16 x 4 x 8.5 mm	60 x 10 x 60 mm	67 x 10 x 75 mm	107 x 10 x 75 mm	34 x 10 x 10 mm
	for switching amplifier	for analog amplifier	for analog amplifier	for analog amplifier	for switching amplifier
	Optical sensor head				
	Diffuse sensor, energetic	Fork sensor	Fork sensor	Fork sensor	Fork sensor
	Fixed background suppression	Light array	Light array	Light array	Diffraction caused by liquid
	divergent, max. 3.5°	—	—	—	—
	microSPOT-LED red light	LED, red light	LED, red light	LED, red light	LED, red light
	Ø 1.8 mm at 7.5 mm	—	—	—	—
	3...15 mm	—	—	—	—
	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR
	Brass	Aluminum	Aluminum	Aluminum	Aluminum
	Epoxy	Epoxy	PMMA	PMMA	Epoxy
	CE	CE	CE	CE	CE
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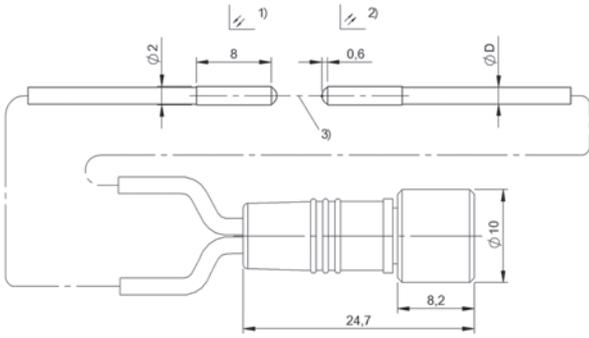
Accessories



	BOH001Y BOH TR-T32-001-01-S49F	BOH001U BOH TJ-T32-001-01-S49F	BOH0019 BOH TR-T48-001-01-S49F	
Series	T32	T32	T48	
Dimension	34 x 10 x 10 mm	34 x 10 x 10 mm	34 x 10 x 10 mm	
Interface	for switching amplifier	for switching amplifier	for switching amplifier	
Principle of operation	Optical sensor head	Optical sensor head	Optical sensor head	
Principle of optical operation	Fork sensor	Fork sensor	Fork sensor	
Special optical feature	Diffraction caused by liquid	Light absorption with water	Diffraction caused by liquid	
Beam characteristic	—	—	—	
Light type	LED, red light	Infrared for water detection	LED, red light	
Light spot size	—	—	—	
Range	—	—	—	
Connection	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 1.0 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	
Housing material	Aluminum	Aluminum	Aluminum	
Material sensing surface	Epoxy	Epoxy	Epoxy	
Approval/Conformity	CE	CE	CE	
Productview	Page 606	Page 606	Page 606	

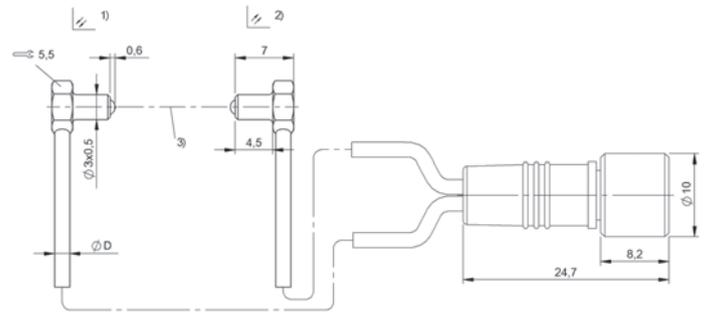


	BOH0015 BOH TJ-T48-001-01-S49F	BOH001A BOH TR-T64-001-01-S49F	BOH0016 BOH TJ-T64-001-01-S49F		
	T48	T64	T64		
	34 x 10 x 10 mm	34 x 10 x 10 mm	34 x 10 x 10 mm		
	for switching amplifier	for switching amplifier	for switching amplifier		
	Optical sensor head	Optical sensor head	Optical sensor head		
	Fork sensor	Fork sensor	Fork sensor		
	Light absorption with water	Diffraction caused by liquid	Light absorption with water		
	—	—	—		
	Infrared for water detection	LED, red light	Infrared for water detection		
	—	—	—		
	—	—	—		
	Cable with connector, M8x1 connector, 0.20 m, PUR	Cable with connector, M8x1 connector, 1.00 m, PUR	Cable with connector, M8x1 connector, 0.20 m, PUR		
	Aluminum	Aluminum	Aluminum		
	Epoxy	Epoxy	Epoxy		
	CE	CE	CE		
	Page 606	Page 606	Page 606		



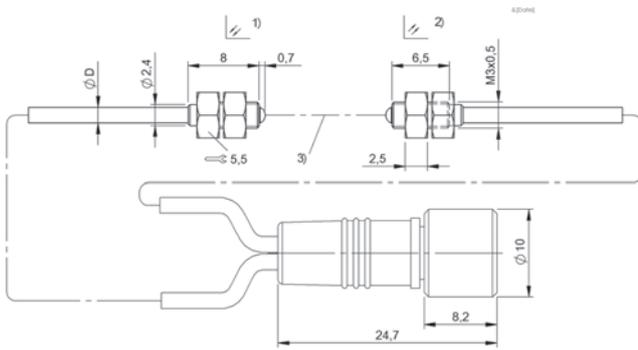
1) Emitter, 2) Receiver, 3) Optical axis

BOH005J, BOH000C, BOH000A, BOH000J



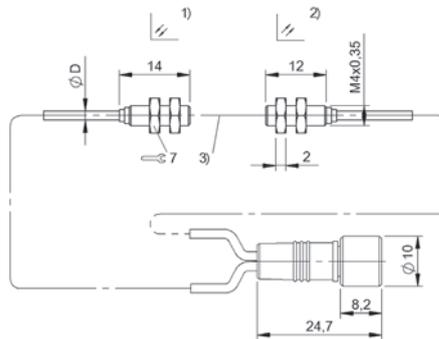
1) Emitter, 2) Receiver, 3) Optical axis

BOH000E



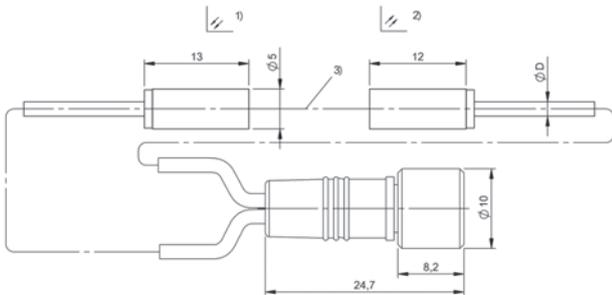
1) Emitter, 2) Receiver, 3) Optical axis

BOH0061, BOH000U, BOH000T



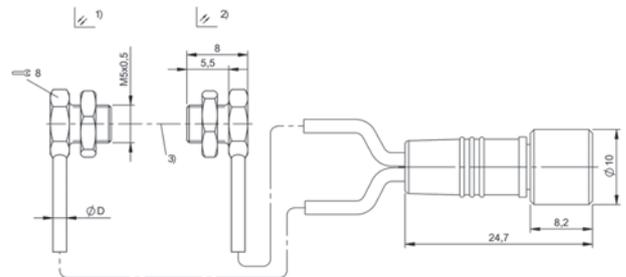
1) Emitter, 2) Receiver, 3) Optical axis

BOH0006, BOH0005



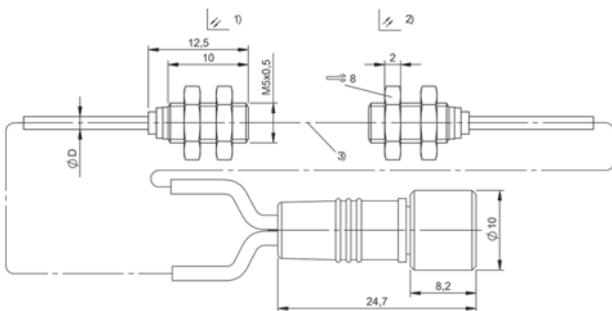
1) Emitter, 2) Receiver, 3) Optical axis

BOH0010



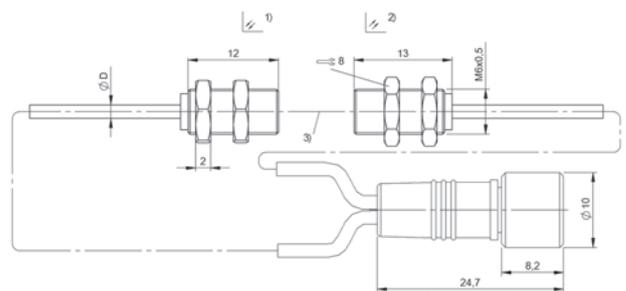
1) Emitter, 2) Receiver, 3) Optical axis

BOH000F



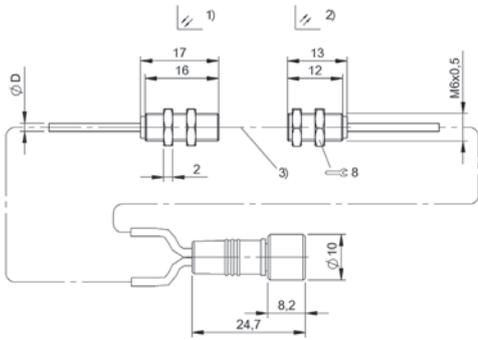
1) Emitter, 2) Receiver, 3) Optical axis

BOH0065, BOH0013, BOH000Y



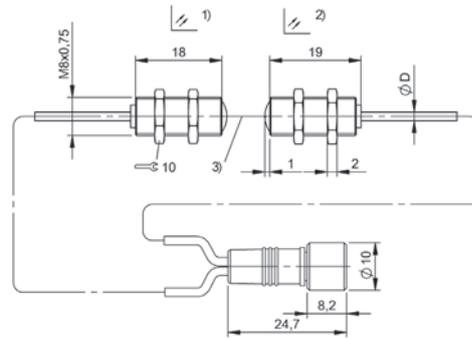
1) Emitter, 2) Receiver, 3) Optical axis

BOH006H, BOH000K



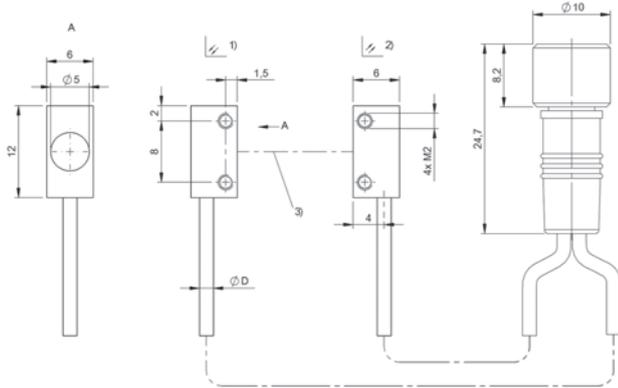
1) Emitter, 2) Receiver, 3) Optical axis

BOH000H



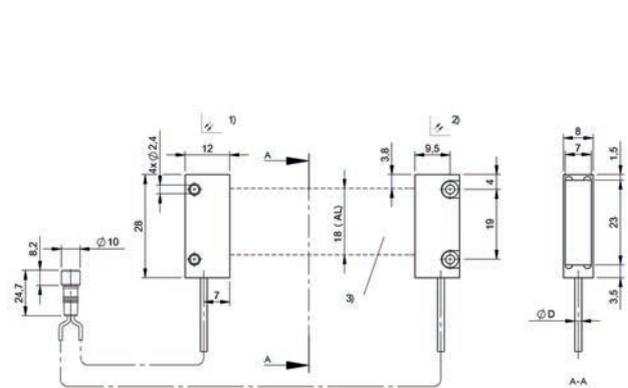
1) Emitter, 2) Receiver, 3) Optical axis

BOH0012



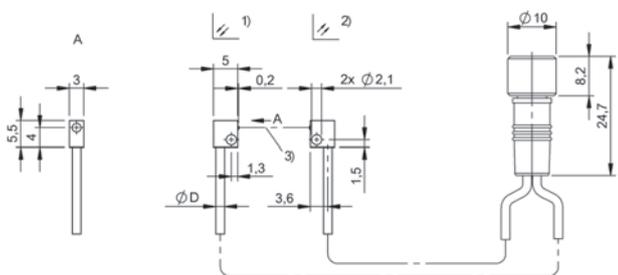
1) Emitter, 2) Receiver, 3) Optical axis

BOH006P, BOH000P, BOH000N, BOH000R



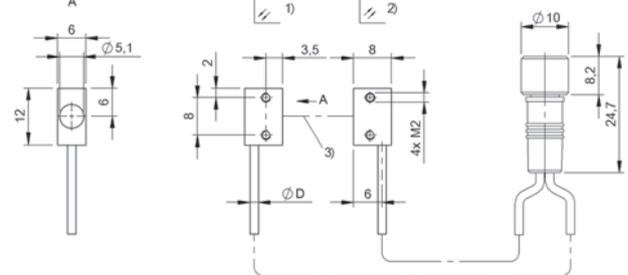
1) Emitter, 2) Receiver, 3) Light array

BOH00EL



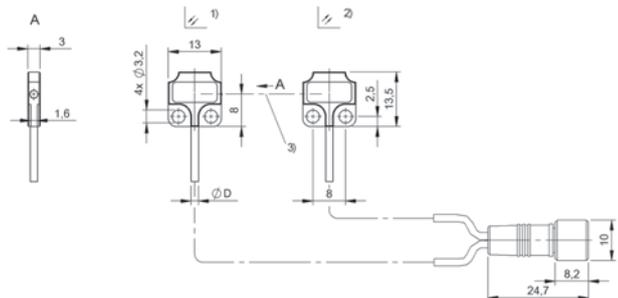
1) Emitter, 2) Receiver, 3) Optical axis

BOH001Z



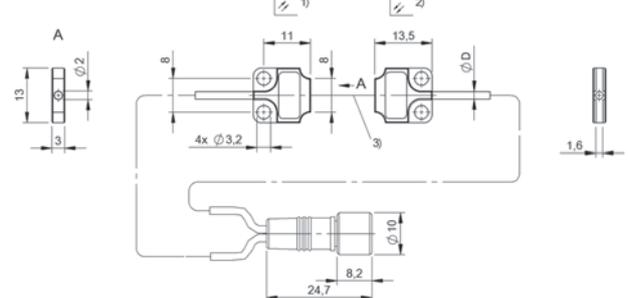
1) Emitter, 2) Receiver, 3) Optical axis

BOH0020, BOH007A



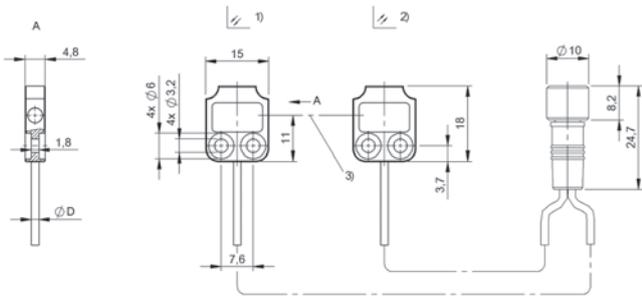
1) Emitter, 2) Receiver, 3) Optical axis

BOH002E



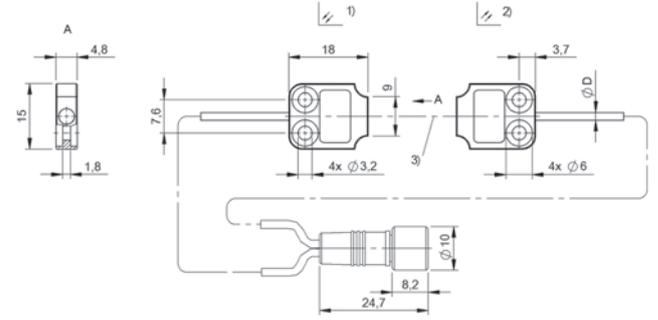
1) Emitter, 2) Receiver, 3) Optical axis

BOH002C



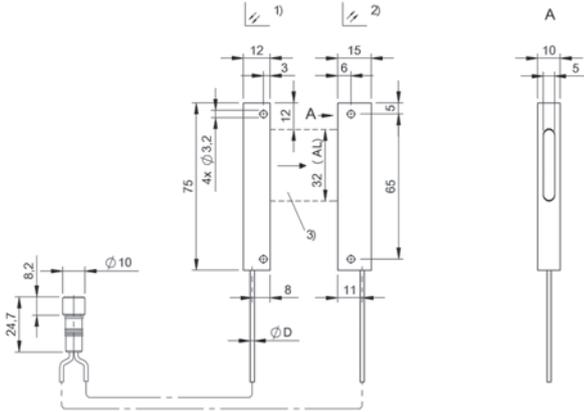
1) Emitter, 2) Receiver, 3) Optical axis

BOH002H



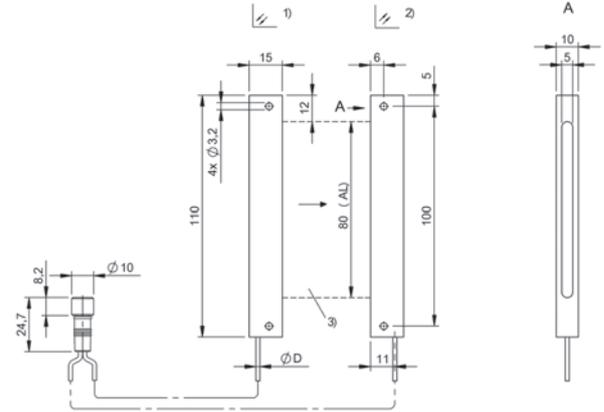
1) Emitter, 2) Receiver, 3) Optical axis

BOH002F



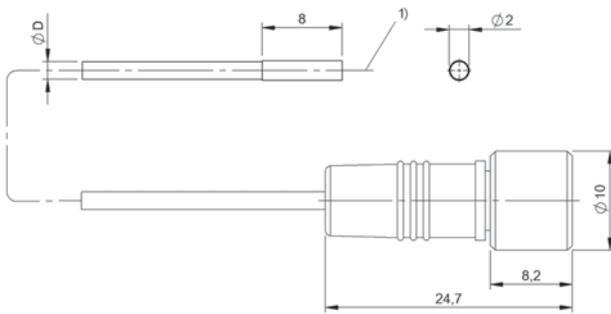
1) Emitter, 2) Receiver, 3) Light array

BOH002H



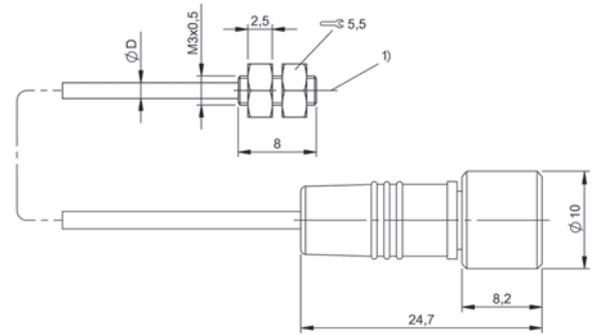
1) Emitter, 2) Receiver, 3) Light array

BOH002F



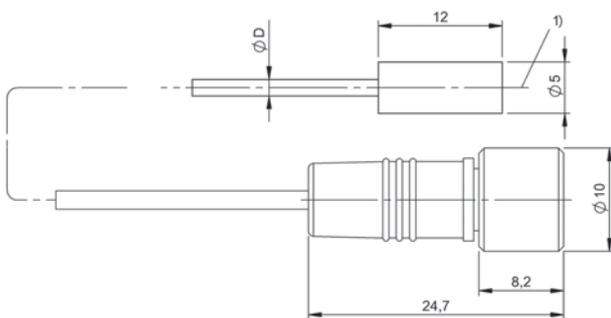
1) Optical axis

BOH0024



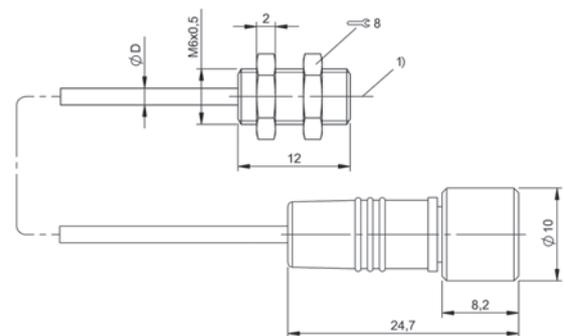
1) Optical axis

BOH002M



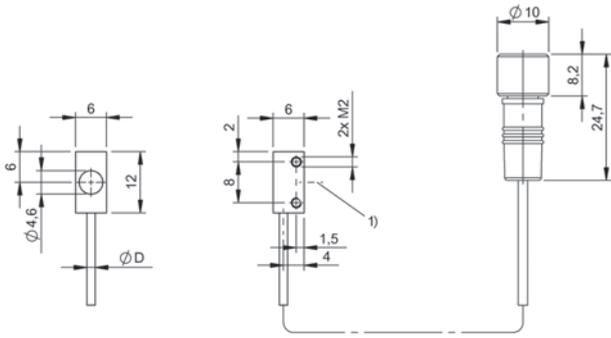
1) Optical axis

BOH0002, BOH0003



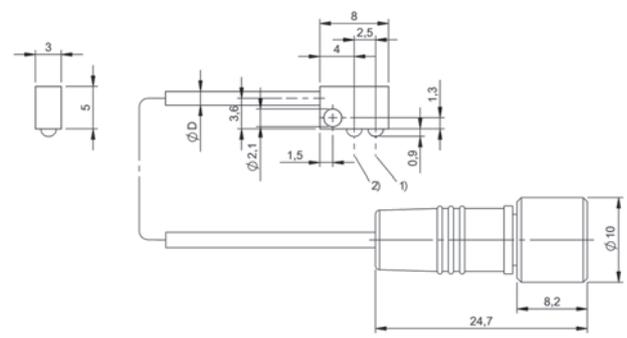
1) Optical axis

BOH0004, BOH0009



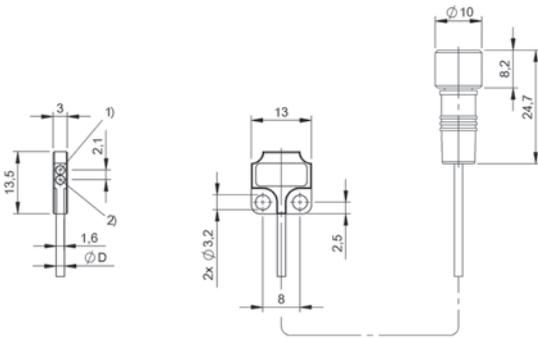
1) Optical axis

BOH003W, BOH000M, BOH000L



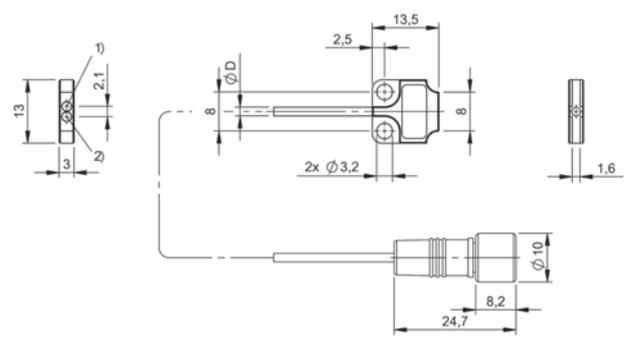
1) Optical axis emitter, 2) Optical axis receiver

BOH002K



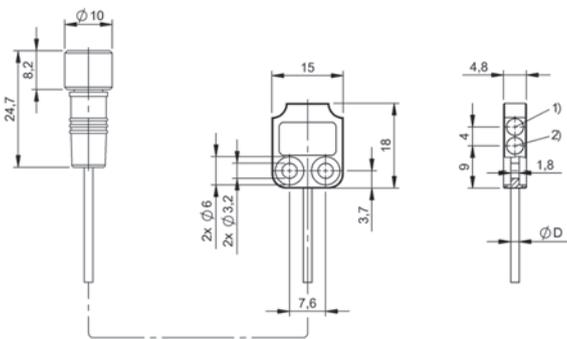
1) Optical axis emitter, 2) Optical axis receiver

BOH0028



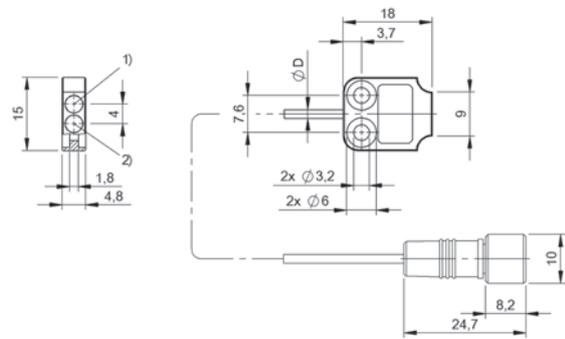
1) Optical axis emitter, 2) Optical axis receiver

BOH0027



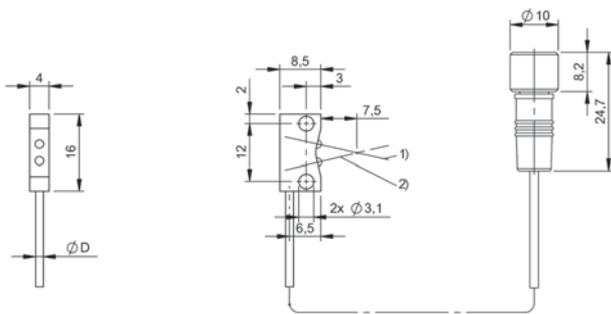
1) Optical axis emitter, 2) Optical axis receiver

BOH002A



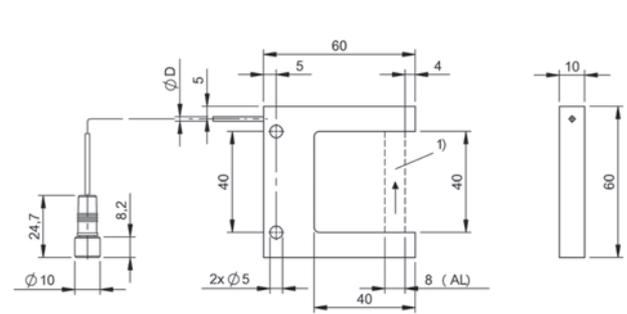
1) Optical axis emitter, 2) Optical axis receiver

BOH0029



1) Optical axis emitter, 2) Optical axis receiver

BOH002L



1) Light array

BOH001M



PNP normally open/normally closed			BAE00NE BAE SA-OH-035-PP-DV02	
NPN normally open/normally closed	BAE00PR BAE SA-OH-035-NP-DV02	BAE00PT BAE SA-OH-035-NP-S75G		
Analog, voltage 0...10 V				
Analog, current 4...20 mA				
Series	SA-OH	SA-OH	SA-OH	
Dimension	15 x 36 x 61 mm	15 x 36 x 61 mm	15 x 36 x 61 mm	
Display	LED green: Power, Digital display, Switching state - LED yellow	LED green: Power, Digital display, Switching state - LED yellow	Output function- LED yellow, LED green: Power, Error - LED green, flashing, Signal strength - segment display	
Setting	Light-on/dark-on, Time function on/off, Delay time, Teach mode Aut/Hys/Int/Pot	Light-on/dark-on, Time function on/off, Delay time, Teach mode Aut/Hys/Int/Pot	Sensitivity (Sn), Light-on/dark-on, Teach Sn, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset), Alarm threshold, Teach mode Aut/Fine/1-Pt/2-Pt, Hysteresis (4 levels), Integration time 4...128 ms, Upper and lower threshold, Delay time	
Adjuster	Slide switch 4 positions	Slide switch 4 positions	Slide switch 4 positions	
Connection	Cable, 2.00 m, PVC	M8x1 connector, 4-pin	Cable, 2.00 m, PVC	
Housing material	ABS PC	ABS PC	ABS PC	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, EAC	CE, EAC	CE, EAC	
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	BAE00NF BAE SA-OH-035-PP-S75G				
				BAE00NH BAE SA-OH-038-UA-DV02	BAE00NG BAE SA-OH-038-UA-S75G
		BAE00N4 BAE SA-OH-038-IC-DV02	BAE00N5 BAE SA-OH-038-IC-S75G		
	SA-OH	SA-OH	SA-OH	SA-OH	SA-OH
	15 x 36 x 61 mm	15 x 36 x 61 mm	15 x 36 x 61 mm	15 x 36 x 61 mm	15 x 36 x 61 mm
	Output function- LED yellow, LED green: Power, Error - LED green, flashing, Signal strength - segment display	LED green: Power, Signal strength - segment display	LED green: Power, Signal strength - segment display	LED green: Power, Signal strength - segment display	LED green: Power, Signal strength - segment display
	Sensitivity (Sn), Light-on/dark-on, Teach Sn, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset), Alarm threshold, Teach mode Aut/Fine/1-Pt/2-Pt, Hysteresis (4 levels), Integration time 4...128 ms, Upper and lower threshold, Delay time	Sensitivity (Sn), Teach Sn, Teach mode Aut/Pot, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset)	Sensitivity (Sn), Teach Sn, Teach mode Aut/Pot, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset)	Sensitivity (Sn), Teach Sn, Teach mode Aut/Pot, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset)	Sensitivity (Sn), Teach Sn, Teach mode Aut/Pot, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset)
	Slide switch 4 positions	Slide switch 4 positions	Slide switch 4 positions	Slide switch 4 positions	Slide switch 4 positions
	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PVC	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PVC	Connector, M8x1 connector, 4-pin
	ABS PC	ABS PC	ABS PC	ABS PC	ABS PC
	10...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC
	CE, EAC	CE, EAC	CE, EAC	CE, EAC	CE, EAC
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PNP normally open/normally closed			BAE00YC BAE SA-0H-050-PP-DV02	
PNP dynamic normally open/normally closed	BAE00NJ BAE SA-0H-040-PP-DV02	BAE00N7 BAE SA-0H-040-PP-S75G		
Series	SA-OH	SA-OH	SA-OH	
Dimension	15 x 36 x 61 mm	15 x 36 x 61 mm	15 x 36 x 61 mm	
Display	Output function- LED yellow, LED green: Power, Error - LED green, flashing, Signal strength - segment display	Output function- LED yellow, LED green: Power, Error - LED green, flashing, Signal strength - segment display	Output function- LED yellow, LED green: Power, Error - LED green, flashing, Signal strength - segment display	
Setting	Sensitivity (Sn), Light-on/dark-on, Teach Sn, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset), Hysteresis (4 levels), Integration time 4...128 ms, Delay time, Teach mode Aut/Hys/Int/Pot	Sensitivity (Sn), Light-on/dark-on, Teach Sn, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset), Hysteresis (4 levels), Integration time 4...128 ms, Delay time, Teach mode Aut/Hys/Int/Pot	Sensitivity (Sn), Light-on/dark-on, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset), Alarm threshold, Teach mode Aut/Fine/1-Pt/2-Pt, Hysteresis (4 levels), Upper and lower threshold, Delay time, Window function/standard switching function	
Adjuster	Slide switch 4 positions	Slide switch 4 positions	Slide switch 4 positions	
Connection	Cable, 2.00 m, PVC	Connector, M8x1 connector, 4-pin	Cable, 2.00 m, PVC	
Housing material	ABS PC	ABS PC	ABS PC	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, EAC	CE, EAC	CE, EAC	
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BAE00Y7 BAE SA-OH-050-PP-S75G				
SA-OH				
15 x 36 x 61 mm				
Output function- LED yellow, LED green: Power, Error - LED green, flashing, Signal strength - segment display				
Sensitivity (Sn), Light-on/dark-on, Read direction for segment display, Segment display on/off, Key disable on/off, Factory setting (Reset), Alarm threshold, Teach mode Aut/Fine/1-Pt/2-Pt, Hysteresis (4 levels), Upper and lower threshold, Delay time, Window function/standard switching function				
Slide switch 4 positions				
Connector, M8x1 connector, 4-pin				
ABS PC				
10...30 VDC				
CE, EAC				
Page 612				

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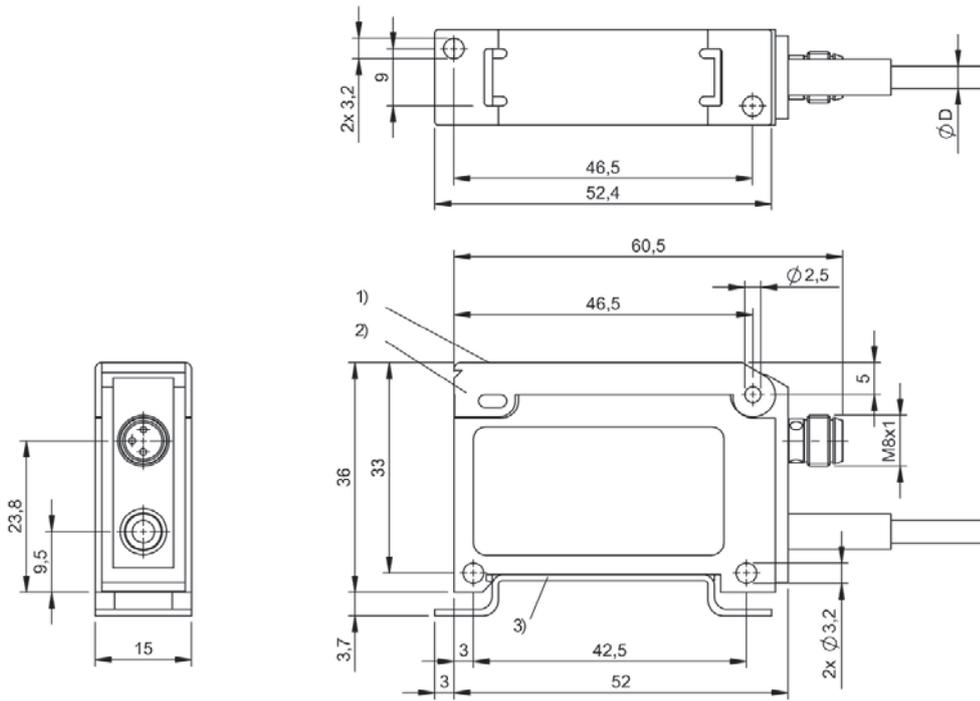
Safety

Industrial Networking

Power Supply

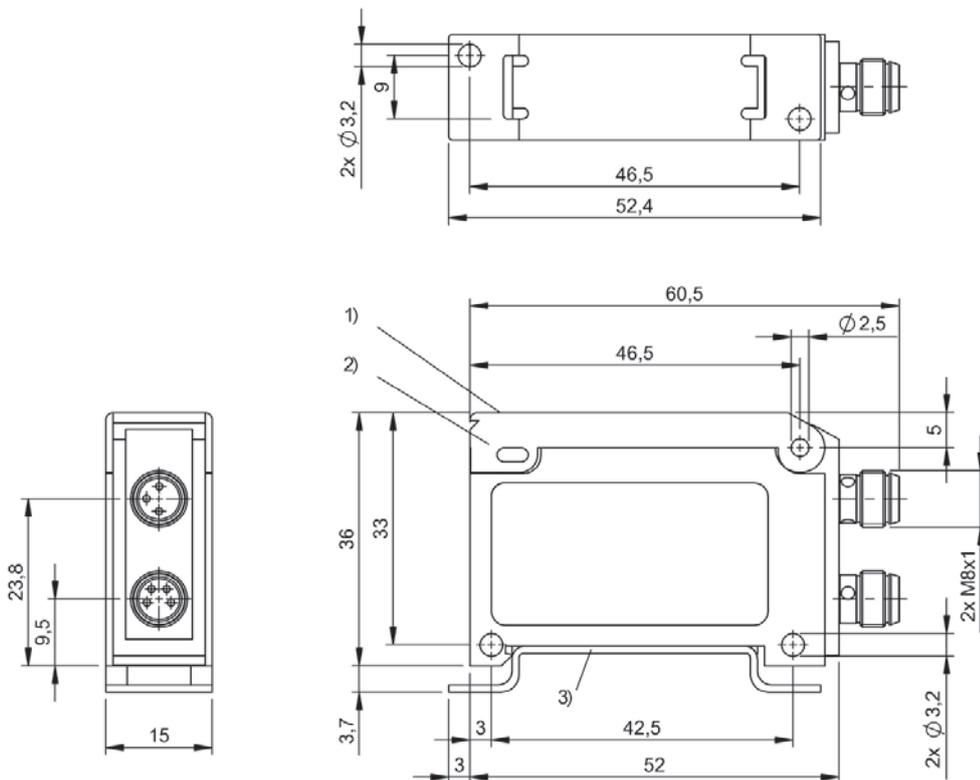
Connectivity

Accessories



1) Display and control panel

BAE00PR, BAE00NE, BAE00N4, BAE00NH, BAE00NJ, BAE00YC



1) Display and control panel, 2) Cover, 3) DIN rail

BAE00PT, BAE00NF, BAE00N5, BAE00N6, BAE00N7, BAE00Y7



	BOD001L BOD 6K-RA02-S75	BOD001R BOD 6K-RA03-S75	BOD001Z BOD 6K-RA04-S75	
Series	6K	6K	6K	
Dimension	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	
Interface	Analog, voltage 1...10 V linear rising/falling PNP NO/NC	Analog, voltage 1...10 V linear rising/falling PNP NO/NC	Analog, voltage 1...10 V linear rising/falling PNP NO/NC	
Principle of operation	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	
Principle of optical operation	Triangulation	Triangulation	Triangulation	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 5 mm at 50 mm	Ø 9.5 mm at 100 mm	Ø 5 mm at 50 mm	
Range	20...80 mm	30...200 mm	10...85 mm	
Repeat accuracy	0.5 %FS	0.5 %FS	0.59 %FS	
Resolution	≤ 120 µm	≤ 0.68 mm	≤ 0.15 mm	
Connection	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	
Housing material	ABS	ABS	ABS	
Operating voltage U_b	13...30 VDC	13...30 VDC	13...30 VDC	
Approval/Conformity	CE, cULus, EAC, Ecolab	CE, cULus, EAC, Ecolab	CE, cULus, EAC, Ecolab	
Trademark	—	—	—	
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	BOD000L BOD 21M-LA01-S92	BOD000M BOD 21M-LA02-S92	BOD000N BOD 21M-LA04-S92	BOD000P BOD 21M-LB01-S92	BOD000R BOD 21M-LB02-S92
	21M	21M	21M	21M	21M
	15 x 42.5 x 50 mm	15 x 42.5 x 50 mm			
	Analog, voltage 1...10 V linear increasing 2x PNP/NPN NO/NC	Analog, voltage 1...10 V linear increasing 2x PNP/NPN NO/NC	Analog, voltage 1...10 V linear increasing 2x PNP/NPN NO/NC	Analog, current 4...20 mA linear increasing 2x PNP/NPN NO/NC	Analog, current 4...20 mA linear increasing 2x PNP/NPN NO/NC
	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor
	Triangulation	Triangulation	Triangulation	Triangulation	Triangulation
	Collimated	Collimated	Collimated	Collimated	Collimated
	Laser red light	Laser red light	Laser red light	Laser red light	Laser red light
	Ø 1 mm at 45 mm	Ø 1 mm at 200 mm	1 x 6 mm at 500 mm	Ø 1 mm at 45 mm	Ø 1 mm at 200 mm
	25...45 mm, adjustable	20...200 mm, adjustable	20...500 mm, adjustable	25...45 mm, adjustable	20...200 mm, adjustable
	0.1 %FS	1 %FS	1 %FS	0.1 %FS	1 %FS
	≤ 30 µm	100...200 µm	100...500 µm	≤ 30 µm	100...200 µm
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum	Zinc, die-cast Aluminum
	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
	—	—	—	—	—
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	BOD000T BOD 21M-LB04-S92	BOD0020 BOD 23K-LI01-S4	BOD001N BOD 23K-LA01-S92	
Series	21M	23K	23K	
Dimension	15 x 42.5 x 50 mm	51 x 23 x 52.4 mm	51 x 23 x 52.4 mm	
Interface	Analog, current 4...20 mA linear increasing 2x PNP/NPN NO/NC	IO-Link 1.1 PNP/NPN/Auto-Detect NO/NC	Analog, voltage 0...10 V linear rising/falling PNP/NPN/Auto-Detect NO/NC	
Principle of operation	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	
Principle of optical operation	Triangulation	Light time-of-flight	Light time-of-flight	
Beam characteristic	Collimated	Collimated	Collimated	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	1 x 6 mm at 500 mm	5.5 x 7 mm at 5 m	5.5 x 7 mm at 5 m	
Range	20...500 mm, adjustable	100...5000 mm	100...5000 mm	
Repeat accuracy	1 %FS	0.024 %FS	0.024 %FS	
Resolution	100...500 µm	≤ 5 mm	≤ 5.0 mm	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 5-pin	
Housing material	Zinc, die-cast Aluminum	ABS	ABS	
Operating voltage U_b	18...30 VDC	18...30 VDC	18...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC, Ecolab	CE, cULus, EAC, Ecolab	
Trademark	—	—	—	
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	BOD001P BOD 23K-LB01-S92	BOD0023 BOD 24K-LI04-S92	BOD0026 BOD 24K-LI05-S92	BOD0021 BOD 24K-LA02-S92	BOD0024 BOD 24K-LA03-S92
	23K	24K	24K	24K	24K
	51 x 23 x 52.4 mm	50 x 21 x 50 mm	50 x 21 x 50 mm	50 x 21 x 50 mm	50 x 21 x 50 mm
	Analog, current 4...20 mA linear rising/falling PNP/NPN/Auto-Detect NO/NC	IO-Link 1.0	IO-Link 1.0	2x PNP/NPN normally open/normally closed (NO/NC) Analog, voltage 0...10 V/1...10 V/0...5 V/1...5 V	2x PNP/NPN normally open/normally closed (NO/NC) Analog, voltage 0...10 V/1...10 V/0...5 V/1...5 V
	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor
	Light time-of-flight	Triangulation	Triangulation	Triangulation	Triangulation
	Collimated	Divergent	Divergent	Divergent	Divergent
	Laser red light	Laser red light	Laser red light	Laser red light	Laser red light
	5.5 x 7 mm at 5 m	1 x 1 mm at 100 mm	1 x 1 mm at 450 mm	1 x 1 mm at 100 mm	1 x 1 mm at 450 mm
	100...5000 mm	50...100 mm	50...650 mm	50...100 mm	50...650 mm
	0.024 %FS	± 0.25 %	± 0.5 %	± 0.25 %	± 0.5 %
	≤ 5.0 mm	≤ 10 µm	≤ 100 µm	≤ 10 µm	≤ 100 µm
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	ABS	Plastic	Plastic	Plastic	Plastic
	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
	CE, cULus, EAC, Ecolab	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
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Sensors

RFID

Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

Safety

Industrial Networking

Power Supply

Connectivity

Accessories



	BOD0022 BOD 24K-LB02-S92	BOD0025 BOD 24K-LB03-S92	BOD0002 BOD 26K-LA01-S4-C	
Series	24K	24K	26K	
Dimension	50 x 21 x 50 mm	50 x 21 x 50 mm	17 x 50 x 50 mm	
Interface	2x PNP/NPN normally open/normally closed (NO/NC) Analog, current 4...20 mA	2x PNP/NPN normally open/normally closed (NO/NC) Analog, current 4...20 mA	Analog, voltage 0...10 V linear increasing	
Principle of operation	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	
Principle of optical operation	Triangulation	Triangulation	Triangulation	
Beam characteristic	Divergent	Divergent	Divergent	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	1 x 1 mm at 100 mm	1 x 1 mm at 450 mm	Ø 0.8 mm at 65 mm	
Range	50...100 mm	50...650 mm	45...85 mm	
Repeat accuracy	± 0.25 %	± 0.5 %	—	
Resolution	≤ 10 µm	≤ 100 µm	≤ 80 µm	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 4-pin	
Housing material	Plastic	Plastic	ABS	
Operating voltage U _b	18...30 VDC	18...30 VDC	18...28 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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	BOD0004 BOD 26K-LA02-S4-C	BOD0005 BOD 26K-LB04-S115-C	BOD0006 BOD 26K-LB05-S115-C	BOD0007 BOD 26K-LB06-S92-C	BOD0008 BOD 26K-LB07-S92-C
	26K	26K	26K	26K	26K
	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm
	Analog, voltage 0...10 V linear increasing	Analog, current 4...20 mA linear rising/falling 2x PNP NO/NC	Analog, current 4...20 mA linear rising/falling 2x PNP NO/NC	Analog, current 4...20 mA linear rising/falling PNP NO/NC	Analog, current 4...20 mA linear rising/falling PNP NO/NC
	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor
	Triangulation	Triangulation	Triangulation	Triangulation	Triangulation
	Divergent	Divergent	Divergent	Divergent	Divergent
	Laser red light	Laser red light	Laser red light	Laser red light	Laser red light
	Ø 0.8 mm at 65 mm	1.5 x 3.25 mm at 100 mm	2 x 4.5 mm at 300 mm	1.5 x 3.25 mm at 100 mm	2 x 4.5 mm at 300 mm
	45...85 mm	30...100 mm, adjustable	80...300 mm, adjustable	30...100 mm, adjustable	80...300 mm, adjustable
	—	0.25 %FS	0.25 %FS	—	—
	≤ 20 µm	0.1 %FS	0.1 %FS	0.1 %FS	0.1 %FS
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 8-pin	Connector, M12x1 connector, 8-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	ABS	ABS	ABS	ABS	ABS
	18...28 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
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	BOD000C BOD 26K-LBR04-S115-C	BOD000E BOD 26K-LBR05-S115-C	BOD001Y BOD 37M-LPR02-S115	
Series	26K	26K	37M	
Dimension	17 x 50 x 50 mm	17 x 50 x 50 mm	60 x 37 x 72.3 mm	
Interface	RS485 Analog, current 4...20 mA linear rising/falling 3x PNP NO/NC	RS485 Analog, current 4...20 mA linear rising/falling 3x PNP NO/NC	RS485 Analog, voltage/analog, current 0.2...10 V/4...20 mA linear rising/falling 2x PNP/NPN/push-pull NO/NC	
Principle of operation	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	
Principle of optical operation	Triangulation	Triangulation	Light time-of-flight	
Beam characteristic	Divergent	Divergent	Collimated	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	1.5 x 3.25 mm at 100 mm	2 x 4.5 mm at 300 mm	Ø 15 mm at 10 m	
Range	30...100 mm, adjustable	80...300 mm, adjustable	200...20000 mm	
Repeat accuracy	0.25 %FS	0.25 %FS	0.01 %FS	
Resolution	0.1 %FS	0.1 %FS	≤ 1.0 mm	
Connection	Connector, M12x1 connector, 8-pin	Connector, M12x1 connector, 8-pin	Connector, M12x1 connector, 8-pin	
Housing material	ABS	ABS	Zinc, die-cast	
Operating voltage U_b	18...30 VDC	18...30 VDC	19.2...28.8 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Trademark	—	—	—	
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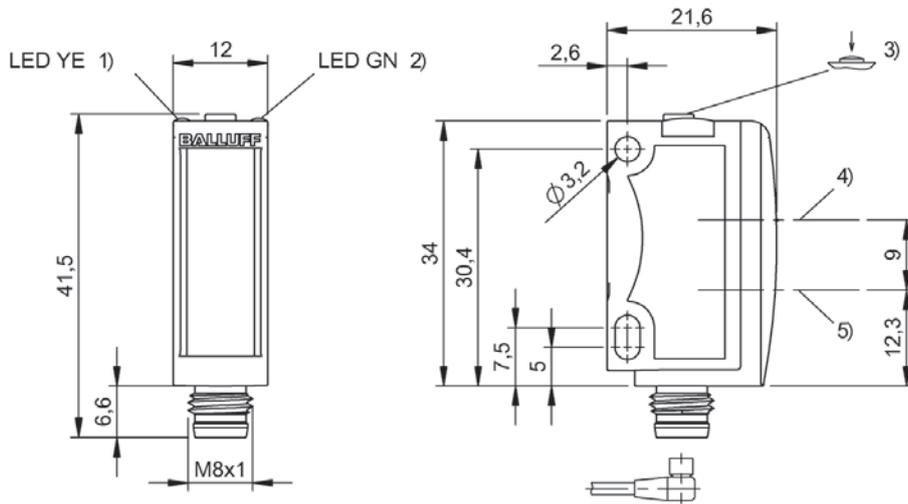
	BOD001U BOD 37M-LA01-S92	BOD001W BOD 37M-LB01-S92	BOD0012 BOD 63M-LI06-S4	BOD000U BOD 63M-LA02-S115	BOD000W BOD 63M-LA04-S115
	37M	37M	63M	63M	63M
	60 x 37 x 72.3 mm	60 x 37 x 72.3 mm	35 x 70 x 90 mm	35 x 70 x 90 mm	35 x 70 x 90 mm
	Analog, voltage 0.2...10 V linear rising/falling 2x PNP/NPN/push-pull NO/NC	Analog, current 4...20 mA linear rising/falling 2x PNP/NPN/push-pull NO/NC	IO-Link 1.0 linear increasing 2x PNP Normally open (NO)	Analog, voltage 0...10 V linear increasing 2x PNP Normally open (NO)	Analog, voltage 0...10 V linear increasing 2x PNP Normally open (NO)
	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor
	Light time-of-flight	Light time-of-flight	Light time-of-flight	Light time-of-flight	Light time-of-flight
	Collimated	Collimated	Collimated	Collimated	Collimated
	Laser red light	Laser red light	Laser red light	Laser red light	Laser red light
	Ø 15 mm at 8 m	Ø 15 mm at 8 m	Ø 10 mm at 6 m	Ø 9 mm at 2 m	Ø 10 mm at 6 m
	200...10000 mm	200...10000 mm	200...6000 mm	200...2000 mm	200...6000 mm
	0.01 %FS	0.01 %FS	0.067 %FS	0.075 %FS	0.033 %FS
	≤ 1.0 mm	≤ 1.0 mm	≤ 1.0 mm	≤ 1.0 mm	≤ 1.0 mm
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 8-pin	Connector, M12x1 connector, 8-pin
	Zinc, die-cast	Zinc, die-cast	Aluminum, die-cast	Aluminum, die-cast	Aluminum, die-cast
	19.2...28.8 VDC	19.2...28.8 VDC	18...30 VDC	15...30 VDC	15...30 VDC
	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
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	BOD0010 BOD 63M-LB02-S115	BOD0011 BOD 63M-LB04-S115	BOD001J BOD 66M-LA12-S92	
Series	63M	63M	66M	
Dimension	35 x 70 x 90 mm	35 x 70 x 90 mm	30 x 100.5 x 73.2 mm	
Interface	Analog, current 4...20 mA linear increasing 2x PNP Normally open (NO)	Analog, current 4...20 mA linear increasing 2x PNP Normally open (NO)	Analog, voltage 1...10 V linear rising/falling PNP/NPN NO/NC	
Principle of operation	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	
Principle of optical operation	Light time-of-flight	Light time-of-flight	Triangulation	
Beam characteristic	Collimated	Collimated	Divergent	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	Ø 9 mm at 2 m	Ø 10 mm at 6 m	Ø 1 mm at 800 mm	
Range	200...2000 mm	200...6000 mm	150...800 mm	
Repeat accuracy	0.075 %FS	0.033 %FS	0.5 %FS	
Resolution	≤ 1.0 mm	≤ 1.0 mm	100...800 µm	
Connection	Connector, M12x1 connector, 8-pin	Connector, M12x1 connector, 8-pin	Connector, M12x1 connector, 5-pin	
Housing material	Aluminum, die-cast	Aluminum, die-cast	Zinc, die-cast	
Operating voltage U_b	15...30 VDC	15...30 VDC	18...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, EAC	
Trademark	—	—	—	
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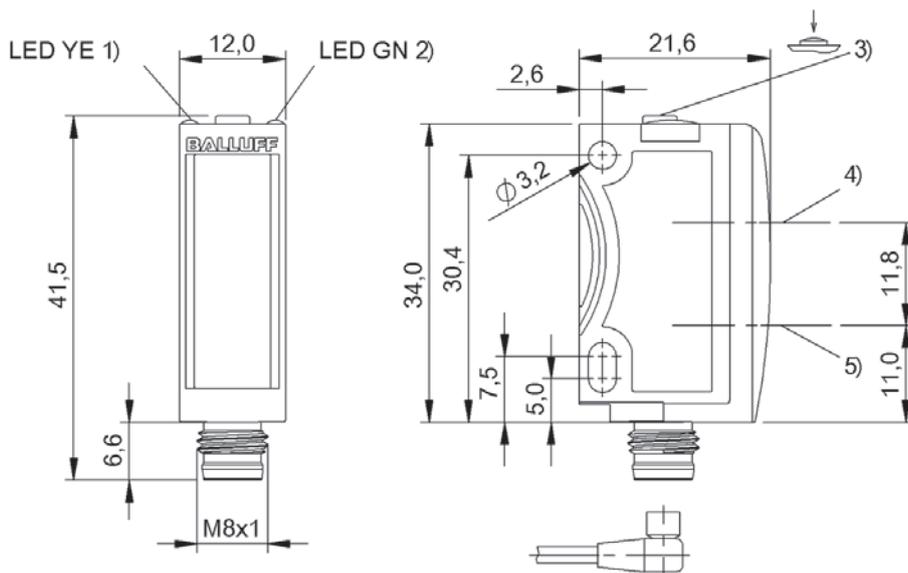


	BOD001E BOD 66M-LA14-S92	BOD001H BOD 66M-RA11-S92	BOD001K BOD 66M-LB12-S92	BOD001F BOD 66M-LB14-S92	BOD001C BOD 66M-RB11-S92
	66M	66M	66M	66M	66M
	30 x 100.5 x 73.2 mm	30 x 100.5 x 73.2 mm	30 x 100.5 x 73.2 mm	30 x 100.5 x 73.2 mm	30 x 100.5 x 73.2 mm
	Analog, voltage 1...10 V linear rising/falling PNP/NPN NO/NC	Analog, voltage 1...10 V linear rising/falling PNP/NPN NO/NC	Analog, current 4...20 mA linear rising/falling PNP/NPN NO/NC	Analog, current 4...20 mA linear rising/falling PNP/NPN NO/NC	Analog, current 4...20 mA linear rising/falling PNP/NPN NO/NC
	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor
	Triangulation	Triangulation	Triangulation	Triangulation	Triangulation
	Divergent	Divergent	Divergent	Divergent	Divergent
	Laser red light	LED, red light	Laser red light	Laser red light	LED, red light
	2 x 6 mm at 2 m	Ø 15 mm at 600 mm	Ø 1 mm at 800 mm	2 x 6 mm at 2 m	Ø 15 mm at 600 mm
	150...2000 mm	100...600 mm	150...800 mm	150...2000 mm	100...600 mm
	0.5 %FS	0.5 %FS	0.5 %FS	0.5 %FS	0.5 %FS
	1...3 mm	100...500 µm	100...800 µm	1...3 mm	100...500 µm
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
	CE, EAC	CE, EAC	CE, EAC	CE, EAC	CE, EAC
	—	—	—	—	—
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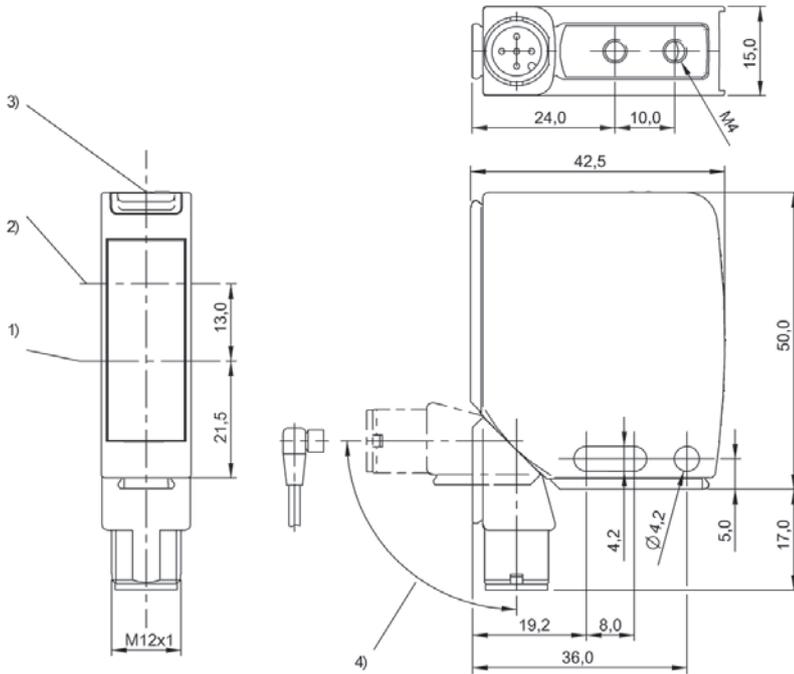
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOD001L, BOD001Z



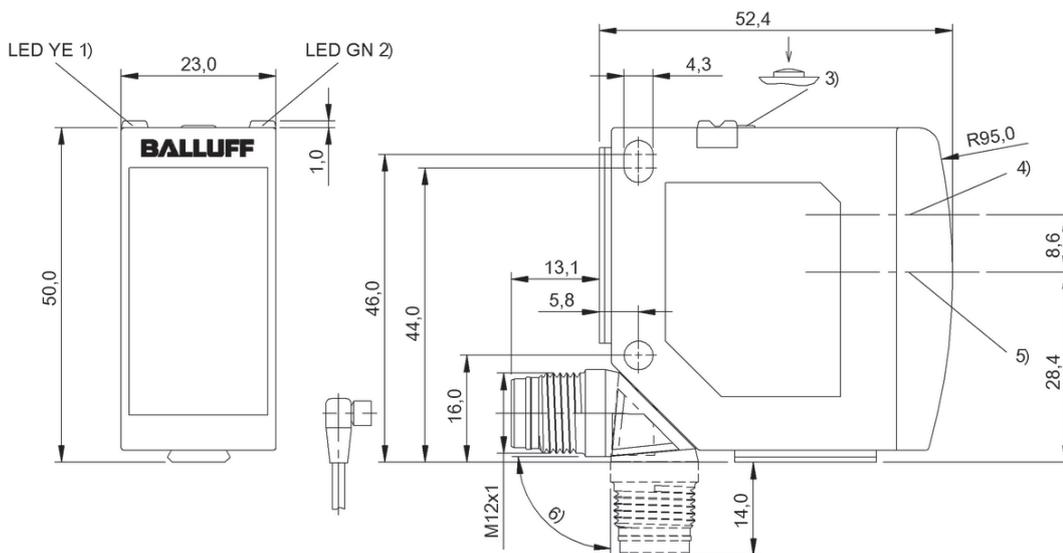
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOD001R



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

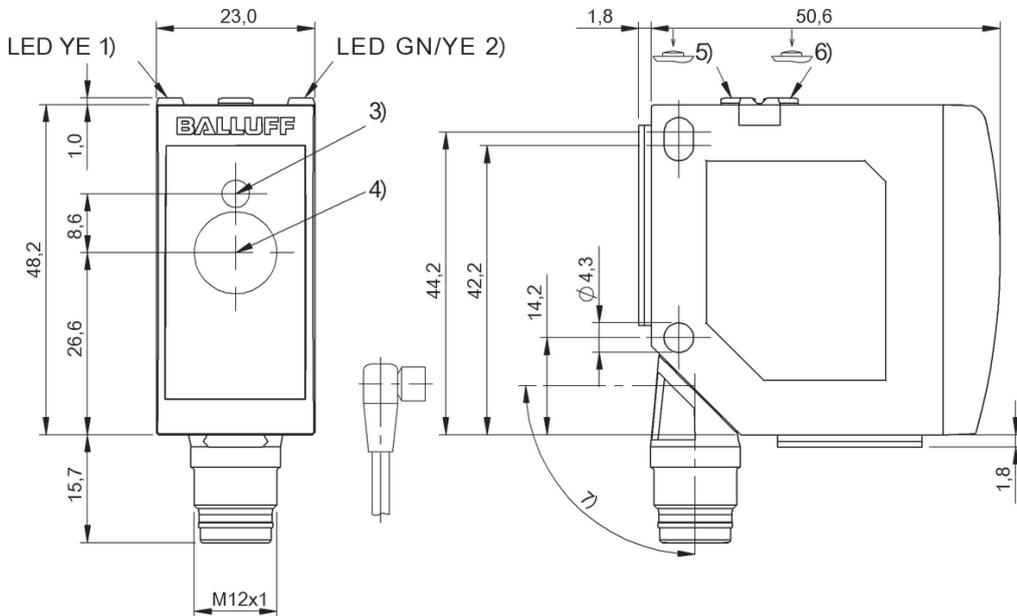
BOD000L, BOD000M, BOD000N, BOD000P, BOD000R, BOD000T



1) Output function, 2) Operating voltage, 3) Teach-In button, 4) Optical axis emitter, 5) Optical axis receiver, 6) rotatable 270°

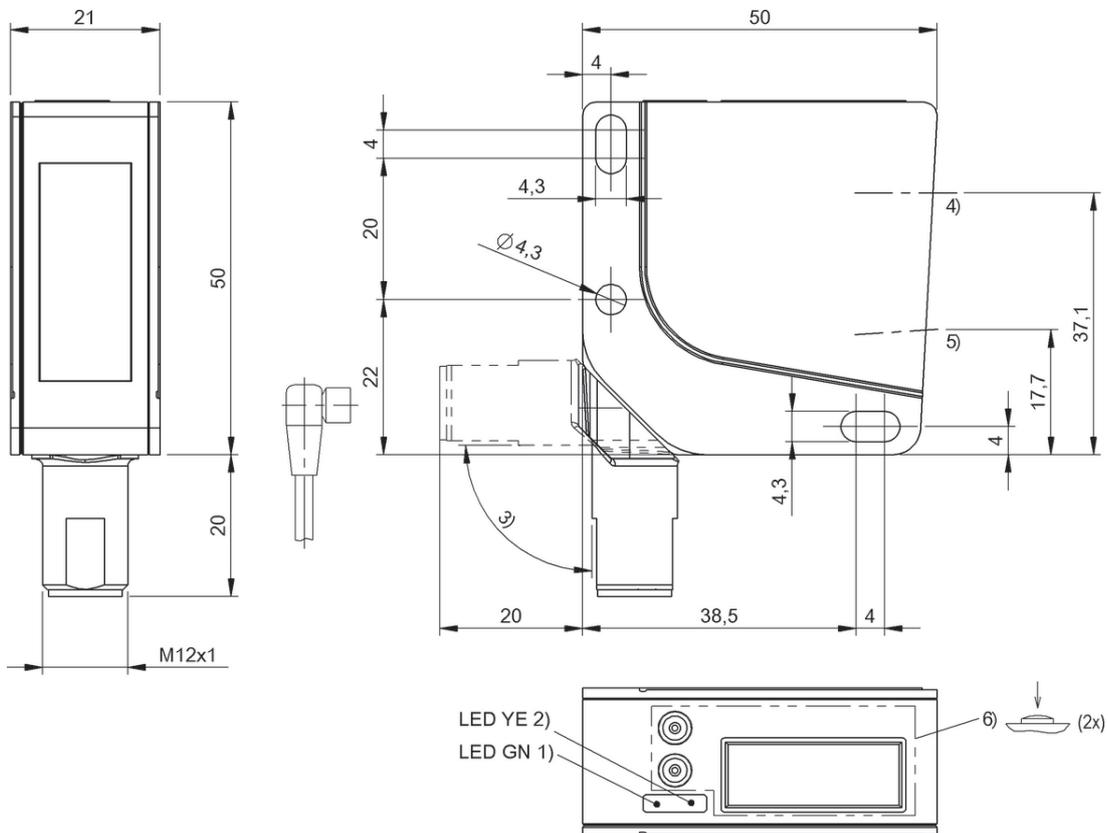
BOD0020

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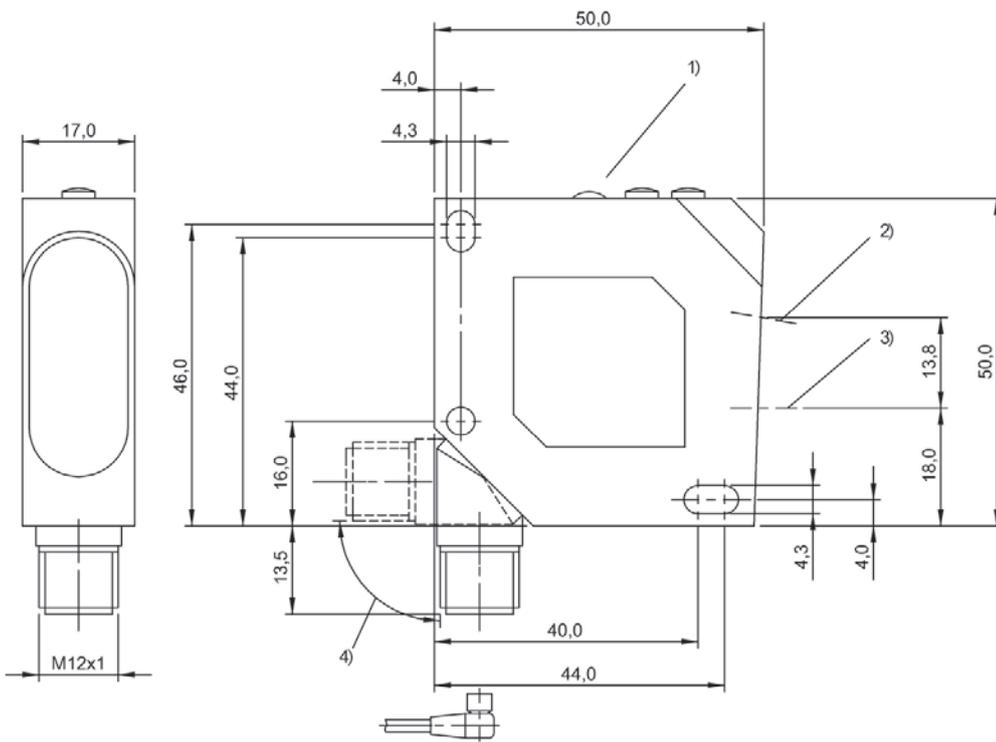
1) Output function, 2) Power/Analog output, 3) Optical axis emitter, 4) Optical axis receiver, 5) Teach-In switching output, 6) Teach-in Analog output, 7) rotatable 270°

BOD001N, BOD001P



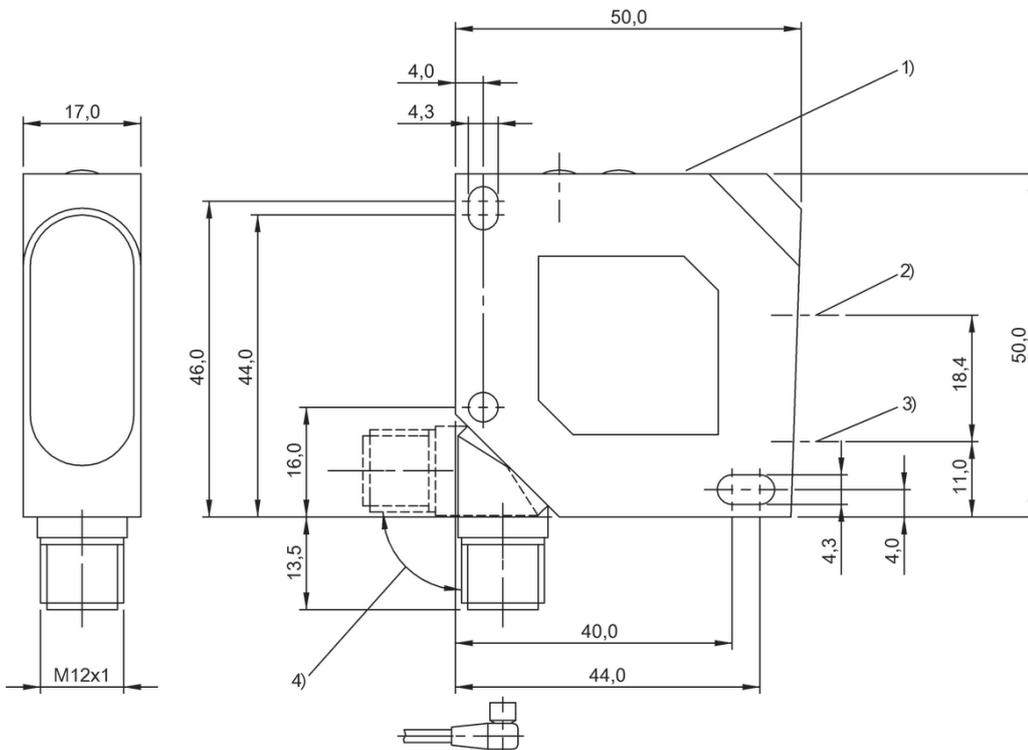
1) Operating voltage, 2) Output function, 3) rotatable 180°, 4) Optical axis emitter, 5) Optical axis receiver, 6) Display and keypad

BOD0023, BOD0026, BOD0021, BOD0024, BOD0022, BOD0025



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

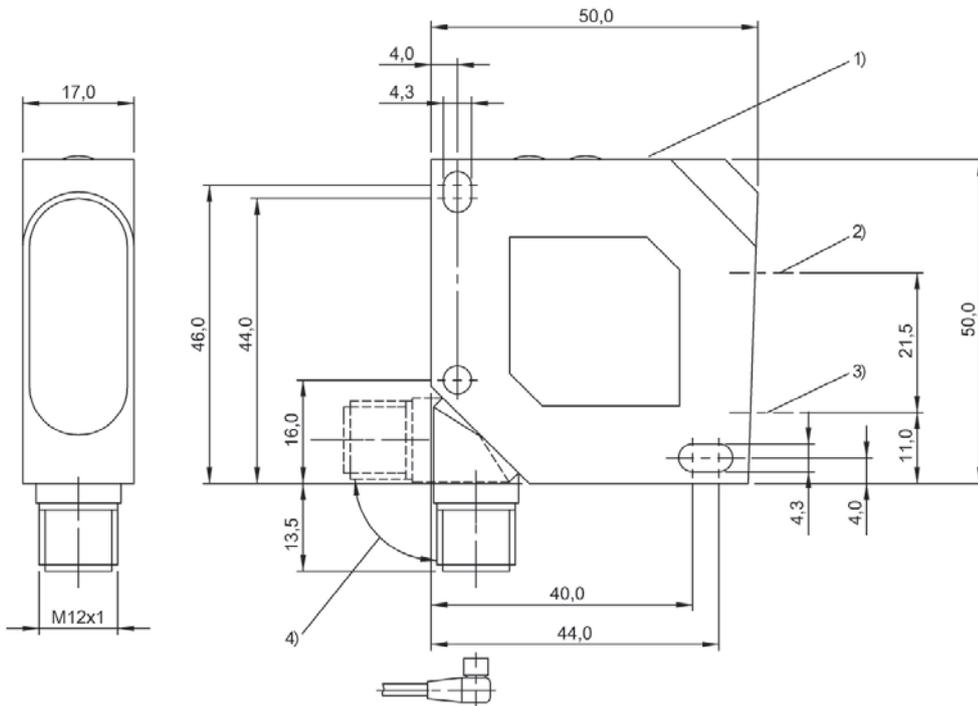
BOD0002, BOD0004



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

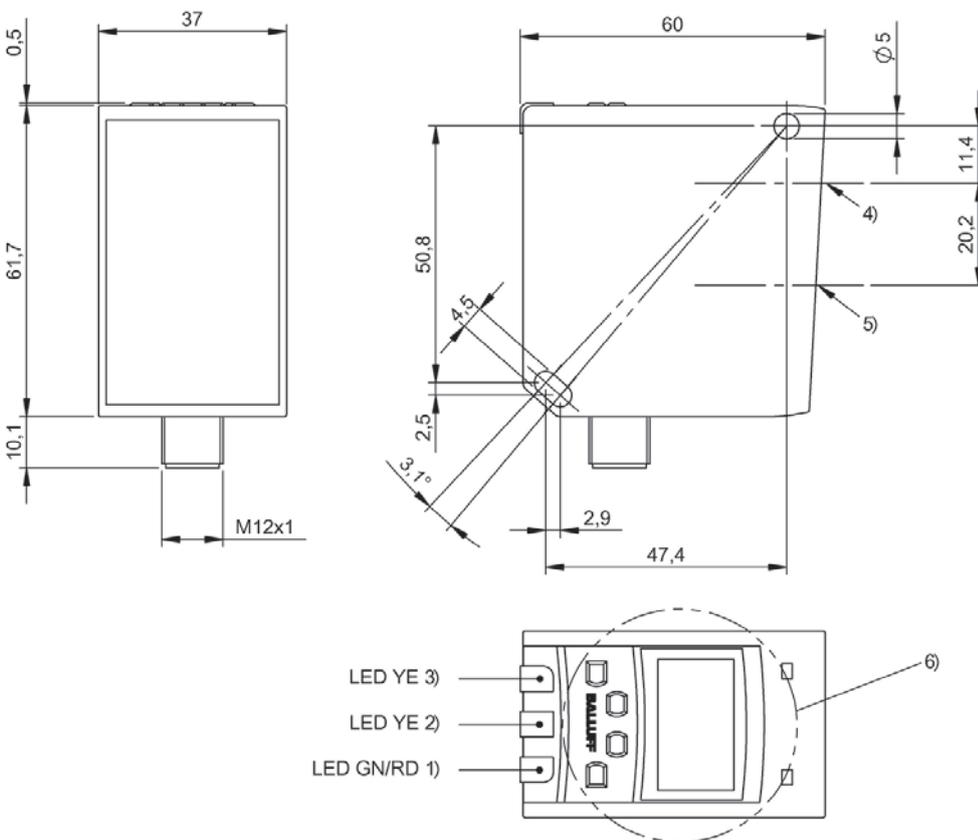
BOD0005, BOD0007, BOD000C

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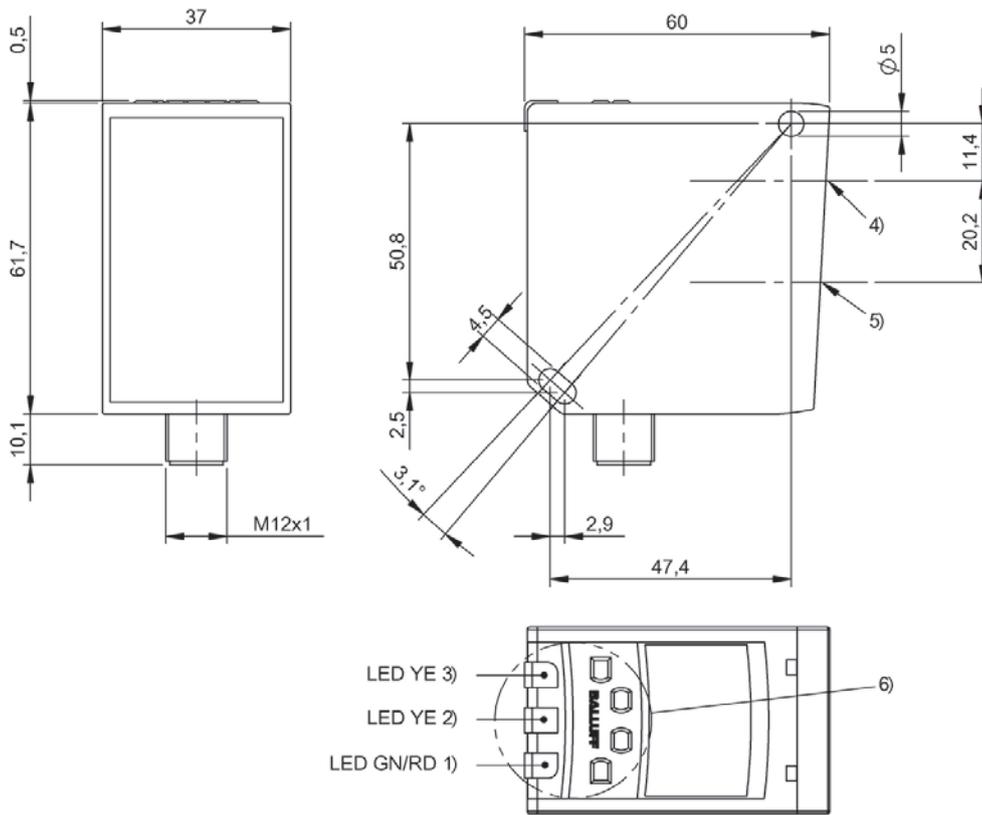
1) Display and control panel, 2) Optical axis emitter, 3) Optical axis receiver, 4) rotatable 270°

BOD0006, BOD0008, BOD000E



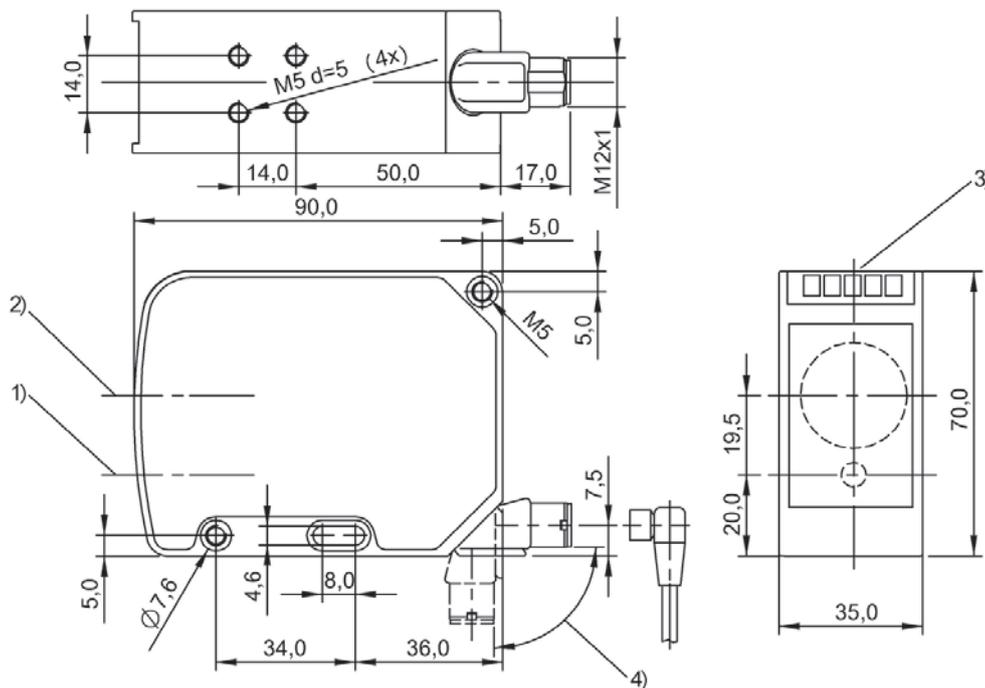
1) Operating voltage/Error, 2) Switchpoint Q2, 3) Switchpoint Q1, 4) Optical axis emitter, 5) Optical axis receiver, 6) Display and keypad

BOD001Y



1) Operating voltage/Error, 2) Switchpoint Q2, 3) Switchpoint Q1, 4) Optical axis emitter, 5) Optical axis receiver, 6) Display and control panel

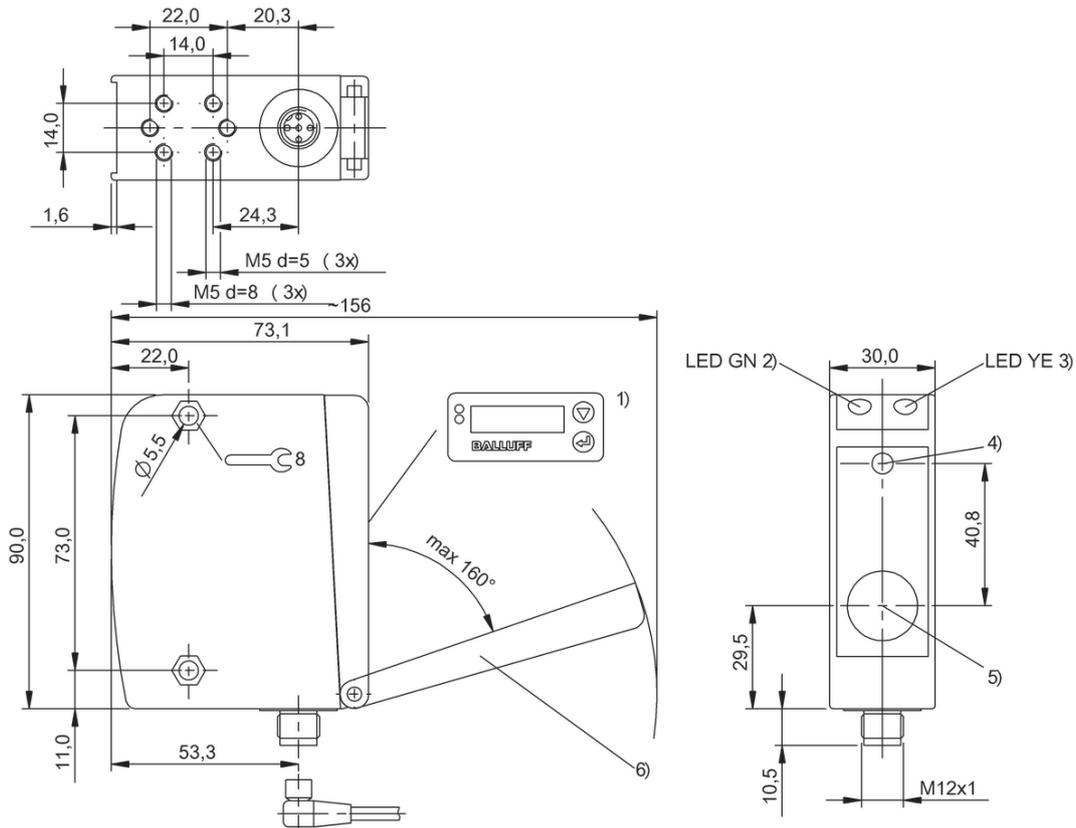
BOD001U, BOD001W



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

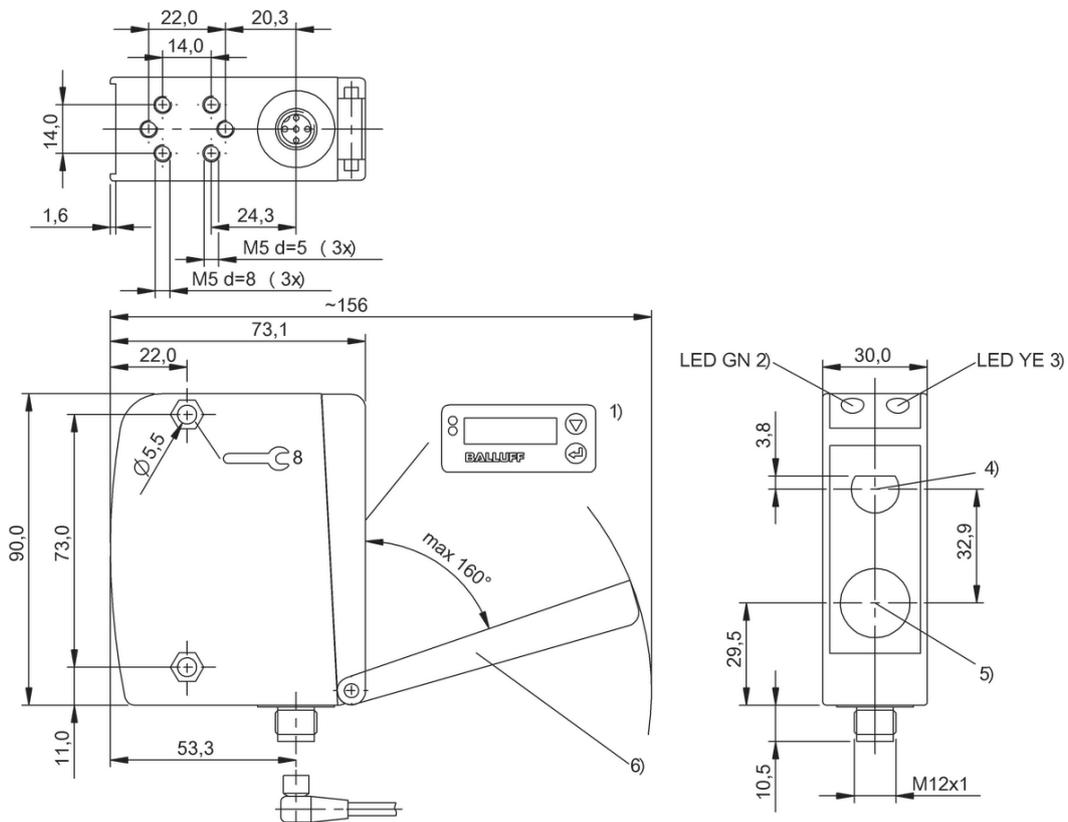
BOD0012, BOD000U, BOD000W, BOD0010, BOD0011

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1) Display and keypad, 2) Operating voltage, 3) Output function, 4) Optical axis emitter, 5) Optical axis receiver, 6) Removable cover

BOD001J, BOD001E, BOD001K, BOD001F



1) Display and keypad, 2) Operating voltage, 3) Output function, 4) Optical axis emitter, 5) Optical axis receiver, 6) Removable cover

BOD001H, BOD001C

