Generous detection range for high reliability

PHOTOELECTRIC SENSORS

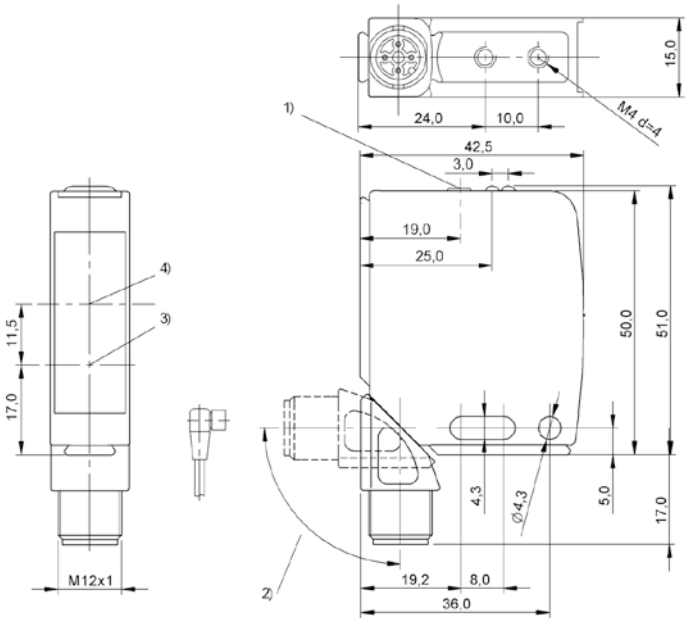
Photoelectric sensors from Balluff reliably recognize the presence of objects. They check shape, color, distance or thickness equally reliably. This is because they have a significantly greater detection range compared to inductive or capacitive technology.

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

	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 Ub	10...30 VDC
Approval/Conformity	CE, EAC, cULus



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

BOS026R

PNP normally open	**BOS01R8** BOS 08E-PS-KD20-00,2-S49	**BOS01NN** BOS 08E-PS-KD20-S49	
Series	08E	08E	
Dimension	Ø 8 x 40 mm	Ø 8 x 40 mm	
Input function	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Divergent	
Light type	LED, red light	LED, red light	
Light spot size	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	
Range	1...60 mm	1...60 mm	
Connection	Cable with connector, 0.20 m, PUR	Connector, M8x1-Male, 3-pin	
Housing material	Stainless steel	Stainless steel	
Material sensing surface	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	
Trademark	—	—	
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	BOS01Y2 BOS 12M-PS-ID10-S4	BOS01TP BOS 12M-PS-RD10-S4	BOS01TN BOS 12M-PS-RD11-S4	BOS01TU BOS 12M-PS-RD12-S4
	12M	12M	12M	12M
	Ø 12 x 60 mm	Ø 12 x 60 mm	Ø 12 x 60 mm	Ø 12 x 60 mm
	–	–	–	–
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
	–	–	–	–
	Divergent	Divergent	Divergent	Divergent
	LED infrared	LED, red light	LED, red light	LED, red light
	45 x 45 mm at 400 mm	28 x 28 mm at 250 mm	Ø 8 mm at 100 mm	22 x 22 mm at 200 mm
	1...400 mm	0...250 mm	1...100 mm	1...200 mm
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	–	Global	Global	Global
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PNP normally open			
PNP normally open, PNP normally closed	**BOS01EY** BOS 18M-PA-ID20-S4	**BOS01NF** BOS 18M-PA-LD20-S4	
PNP normally open/normally closed, IO-Link 1.1			
Series	18M	18M	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	
Input function	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Focus, typical at 400 mm	
Light type	LED infrared	Laser red light	
Light spot size	Ø 50 mm at 600 mm	Ø 2 mm at 250 mm	
Range	1...800 mm	1...250 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Brass, nickel plated	Brass, nickel plated	
Material sensing surface	Glass, anti-glare	Glass	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	
Trademark	—	—	
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	BOS01C1 BOS 18M-PS-RD20-S4	**BOS01E7** BOS 18M-PS-RD21-S4		**BOS01FA** BOS 18M-PS-RD23-S4
	BOS01CF BOS 18M-PA-RD20-S4	**BOS01CA** BOS 18M-PA-RD21-S4		
			BOS01UA BOS 18M-PI-RD30-S4	
	18M	18M	18M	18M
	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
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
	–	–	–	–
	Divergent	Divergent	Divergent	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light
	Ø 50 mm at 600 mm	Ø 25 mm at 300 mm	Ø 50 mm at 600 mm	Ø 25 mm at 300 mm
	0...600 mm	0...300 mm	1...500 mm	0...400 mm
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
	Glass, anti-glare	Glass, anti-glare	Glass	Glass, anti-glare
	10...30 VDC	10...30 VDC	18...30 VDC	10...30 VDC
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE
	–	–	–	–
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PNP normally open			
PNP normally open, PNP normally closed		**BOS01KE** BOS 18E-PA-RD20-S4	
PNP normally open/normally closed	**BOS01J8** BOS 18M-PUV-RD30-S4		
Series	18M	18E	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	
Input function	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Divergent	
Light type	LED, red light	LED, red light	
Light spot size	Ø 50 mm at 600 mm	Ø 50 mm at 600 mm	
Range	0...500 mm	500 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Brass, nickel plated	Stainless steel (1.4404)	
Material sensing surface	Glass	Glass	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, Ecolab, FDA compliant, EAC, WEEE	
Trademark	—	—	
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		BOS01NA BOS 18KF-PA-1XA-SA1-C-00,2		
	BOS00LT BOS 18KW-PA-1PD-S4-C		**BOS00K9** BOS 18KF-PA-1XA-S4-C	**BOS00K0** BOS 18KF-PA-1PE-C-02
	18KW	18KF	18KF	18KF
	Ø 18 x 93.5 mm	Ø 18 x 67 mm	Ø 18 x 71.5 mm	Ø 18 x 77 mm
	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
	—	—	—	—
	Divergent	Divergent	Divergent	Divergent
	LED infrared	Infrared	LED infrared	LED infrared
	Ø 100 mm at 300 mm	Ø 80 mm at 100 mm	Ø 80 mm at 100 mm	Ø 200 mm at 600 mm
	0...400 mm	0...100 mm	0...100 mm	0...700 mm
	Connector, M12x1-Male, 4-pin	Cable with connector, Molex Mini-Fit 4.2, 4-pin, 0.19 m, PVC	Connector, M12x1-Male, 4-pin	Cable, 2.00 m, PVC
	PBT	PBT	PBT	PBT
	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC, WEEE	CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	Global	—	Global	Global
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PNP normally open			
PNP normally open, PNP normally closed	**BOS00JZ** BOS 18KF-PA-1PD-S4-C	**BOS00K1** BOS 18KF-PA-1PE-S4-C	
Series	18KF	18KF	
Dimension	Ø 18 x 81.5 mm	Ø 18 x 81.5 mm	
Input function	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Divergent	
Light type	LED infrared	LED infrared	
Light spot size	Ø 100 mm at 300 mm	Ø 200 mm bei 600 mm	
Range	0...400 mm	0...700 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	PBT	PBT	
Material sensing surface	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	Global	Global	
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	BOS00JP BOS 18KF-PA-1L0C-S4-C	BOS01WC BOS Q08M-PS-LD20-S49	BOS01RZ BOS Q08M-PS-KD20-00,2-S49	BOS01RJ BOS Q08M-PS-KD20-S49
	18KF	Q08M	Q08M	Q08M
	Ø 18 x 81.5 mm	8 x 59 x 8 mm	8 x 44 x 8 mm	8 x 59 x 8 mm
	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
	—	—	—	—
	Divergent	Collimated	Divergent	Divergent
	Laser red light	Laser red light	LED, red light	LED, red light
	Ø 1 mm at 150 mm	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit
	0...350 mm	60 mm	1...60 mm	1...60 mm
	Connector, M12x1-Male, 4-pin	Connector, M8x1-Male, 3-pin	Cable with connector, 0.20 m, PUR	Connector, M8x1-Male, 3-pin
	PBT	Zinc, Die casting, nickel plated	Zinc, Die casting, nickel plated	Zinc, Die casting, nickel plated
	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE
	Global	—	—	—
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PNP normally open	**BOS021J** BOS R01E-PS-KD20-00,2-S49	**BOS021K** BOS R01E-PS-KD20-02	
Series	R01E	R01E	
Dimension	20 x 32 x 9 mm	20 x 32 x 9 mm	
Input function	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Divergent	
Light type	LED, red light	LED, red light	
Light spot size	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	
Range	1...100 mm	1...100 mm	
Connection	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR	
Housing material	Stainless steel (1.4404)	Stainless steel (1.4404)	
Material sensing surface	PA	PA	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, Ecolab, EAC, WEEE	cULus, CE, Ecolab, EAC, WEEE	
Trademark	—	—	
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	BOS0123 BOS 5K-PS-ID10-02	BOS015J BOS 5K-PS-ID10-S49	BOS0124 BOS 5K-PS-ID10-S75	BOS0127 BOS 5K-PS-RD11-02
	5K	5K	5K	5K
	10.8 x 32.7 x 19.5 mm	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
	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic
	—	—	—	—
	Divergent	Divergent	Divergent	Divergent
	Infrared	Infrared	Infrared	LED, red light
	Ø 50 mm at 500 mm	Ø 50 mm at 500 mm	Ø 50 mm at 500 mm	Ø 8 mm at 180 mm
	0...900 mm	0...900 mm	0...900 mm	50...200 mm
	Cable, 2.00 m, PVC	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 4-pin	Cable, 2.00 m, PVC
	PC PBT	PC PBT	PC PBT	PC PBT
	PMMA	PMMA	PMMA	PC
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, WEEE, EAC
	Global	Global	Global	Global
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PNP normally open	**BOS015N** BOS 5K-PS-RD11-S49	**BOS0128** BOS 5K-PS-RD11-S75	
PNP normally open, PNP normally closed			
Series	5K	5K	
Dimension	10.8 x 43.5 x 19.5 mm	10.8 x 43.5 x 19.5 mm	
Input function	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Divergent	
Light type	LED, red light	LED, red light	
Light spot size	Ø 8 mm at 180 mm	Ø 8 mm at 180 mm	
Range	50...200 mm	50...200 mm	
Connection	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 4-pin	
Housing material	PC PBT	PC PBT	
Material sensing surface	PC	PC	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	
Trademark	Global	Global	
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	BOS0031 BOS 21M-PA-ID10-S4	**BOS0032** BOS 21M-PA-LD10-S4	**BOS0033** BOS 21M-PA-RD10-S4	
	21M	21M	21M	
	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm	
	—	—	—	
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
	—	—	—	
	Divergent	Collimated	Divergent	
	LED infrared	Laser red light	LED, red light	
	—	—	—	
	50...2000 mm	0...600 mm	10...1000 mm	
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum	
	PMMA	PMMA	PMMA	
	10...30 VDC	10...30 VDC	10...30 VDC	
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
	—	—	—	
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PNP normally open			
PNP normally open/normally closed, IO-Link 1.1	**BOS027N** BOS 21M-PAI-RD30-S4		
PNP normally open/normally closed		**BOS0175** BOS 23K-PU-LD20-S4	
Series	21M	23K	
Dimension	15.4 x 51.1 x 42.7 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	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Collimated	
Light type	LED, red light	Laser red light	
Light spot size	—	2.2 x 2.2 mm at 800 mm	
Range	10...1000 mm	5...1200 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Zinc, Die casting, Powder coated Die-cast zinc	PC ABS	
Material sensing surface	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, WEEE, EAC, Ecolab	CE, Ecolab, cULus, EAC, WEEE	
Trademark	—	—	
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		BOS01FM BOS 23K-PA-RD10-S4		
	BOS016Z BOS 23K-PU-RD10-S4		**BOS016Z** BOS 23K-PU-RD10-S4	
	23K	23K	23K	
	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	
	Key disable on/off, Same function as button	—	Key disable on/off, Same function as button	
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	
	—	—	—	
	Focus, typical at 500 mm	Focus, typical at 500 mm	Focus, typical at 500 mm	
	LED, red light	LED, red light	LED, red light	
	15 x 15 mm at focal point	15 x 15 mm at focal point	15 x 15 mm at focal point	
	0...2000 mm	0...2000 mm	0...2000 mm	
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
	PC ABS	PC ABS	PC ABS	
	PMMA	PMMA	PMMA	
	10...30 VDC	10...30 VDC	10...30 VDC	
	Ecolab, CE, cULus, EAC, WEEE	Ecolab, CE, cULus, EAC, WEEE	Ecolab, CE, cULus, EAC, WEEE	
	—	—	—	
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PNP normally open	**BOS01CJ** BOS 50K-PA-RD10-S4		
PNP normally open/normally closed, IO-Link 1.1		**BOS01JJ** BOS 50K-PI-RD11-S4	
PNP normally open/normally closed			
Relay normally open/normally closed			
Series	50K	50K	
Dimension	28.5 x 80.5 x 62 mm	28.5 x 80.5 x 62 mm	
Input function	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, energetic	Diffuse sensor, energetic	
Special optical feature	—	—	
Beam characteristic	Divergent	Divergent	
Light type	LED, red light	LED, red light	
Light spot size	50 x 50 mm at 2 m	80 x 80 mm at Sr	
Range	1...2000 mm	1...3500 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	PC ABS	PC ABS	
Material sensing surface	Glass	Glass	
Operating voltage Ub	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	—	
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	BOS01JA BOS 50K-PU-RD11-S4			
		BOS01K2 BOS 64K-AA-ID10-TG		
	50K	64K		
	28.5 x 80.5 x 62 mm	25 x 69.7 x 100.4 mm		
	—	—		
	Photoelectric sensor	Photoelectric sensor		
	Diffuse sensor, energetic	Diffuse sensor, energetic		
	—	—		
	Divergent	Divergent		
	LED, red light	Infrared		
	80 x 80 mm at Sr	—		
	1...3500 mm	50...2000 mm		
	Connector, M12x1-Male, 4-pin	Screw terminals		
	PC ABS	PBT, GF30		
	Glass	PC		
	10...30 VDC	24...60 VDC/24...240 VAC		
	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE		
	—	—		
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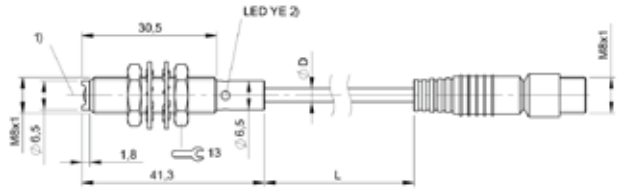
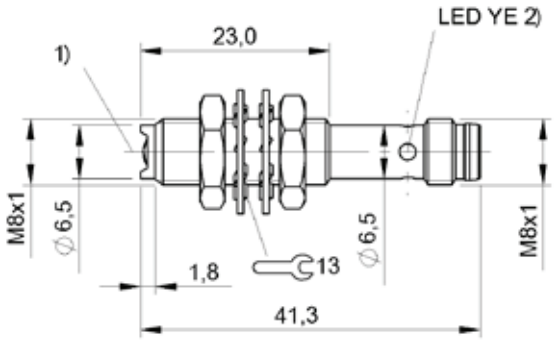


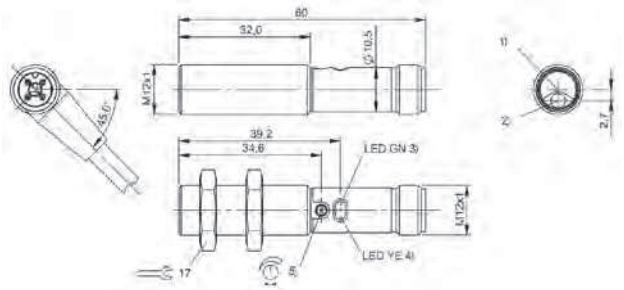
1) Optical axis, 2) Output function

BOS01R8



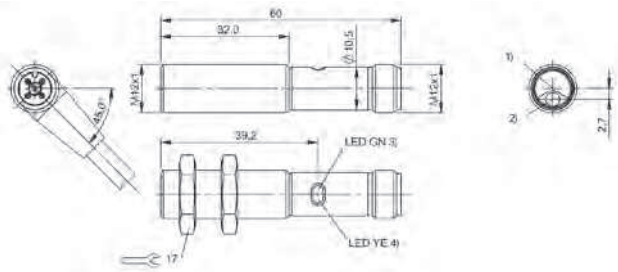
1) Optical axis, 2) Output function

BOS01NN



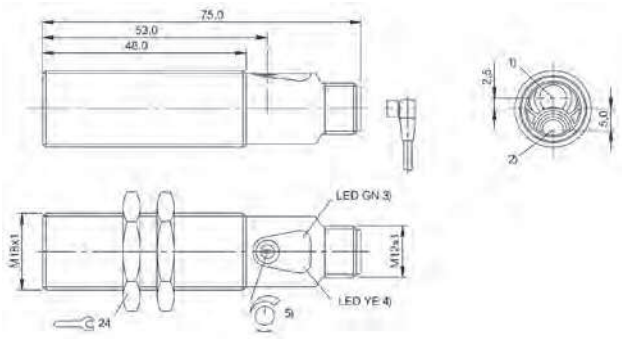
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01Y2, BOS01TP



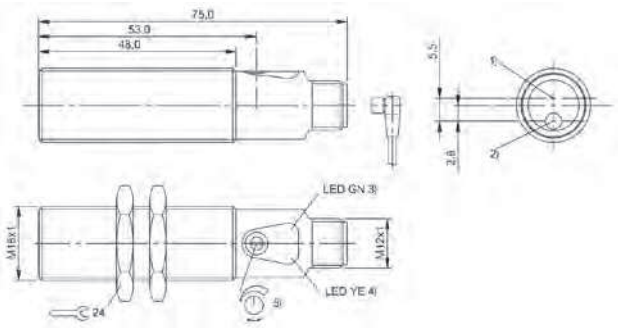
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area

BOS01TN, BOS01TU



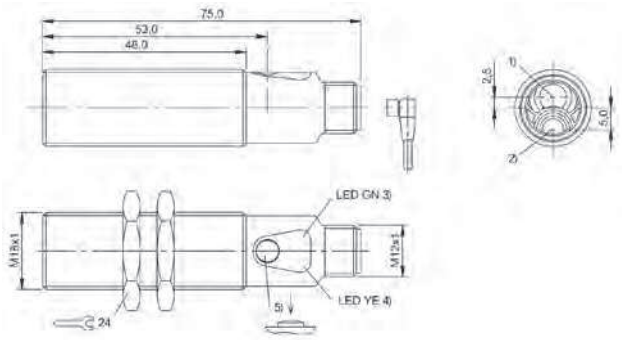
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01EY, BOS01CF, BOS01CA, BOS01C1, BOS01E7



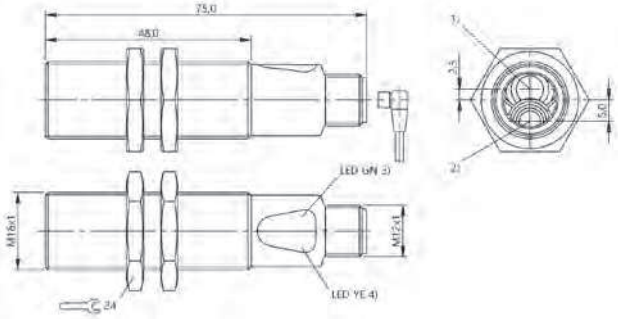
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage/Error, 4) Light reception/limit area, 5) Sn

BOS01NF



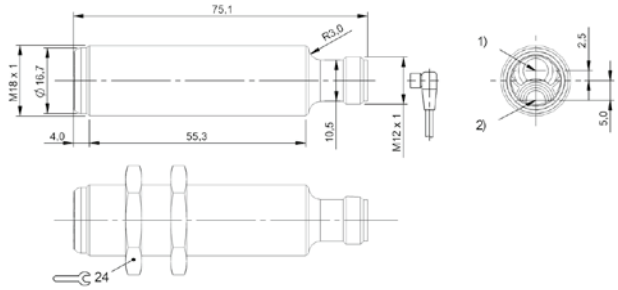
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Light reception/limit area, 5) Sn

BOS01UA, BOS01J8



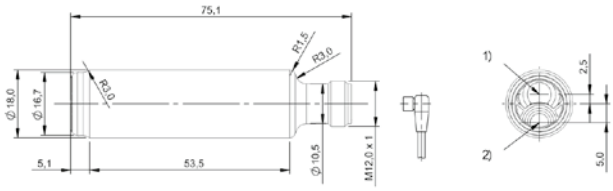
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area

BOS01FA



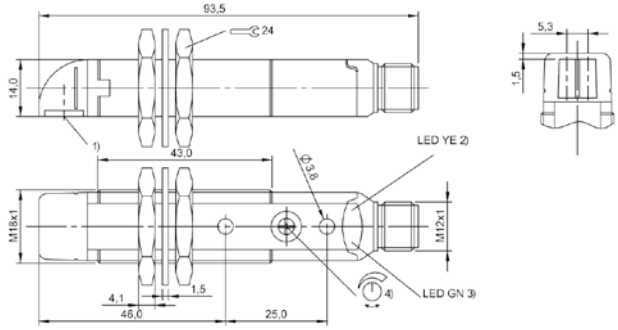
1) Optical axis receiver, 2) Optical axis emitter

BOS01KE, BOS023R, BOS023E



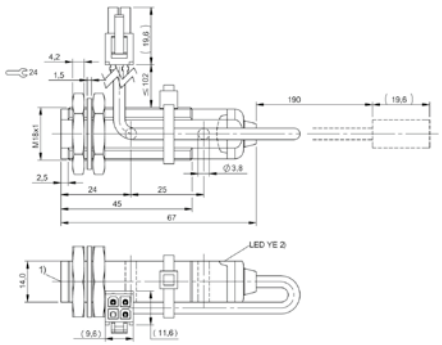
1) Optical axis receiver, 2) Optical axis emitter

BOS01KH, BOS0240



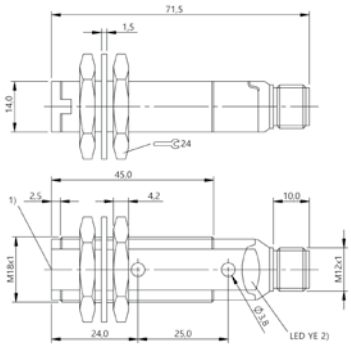
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00LT



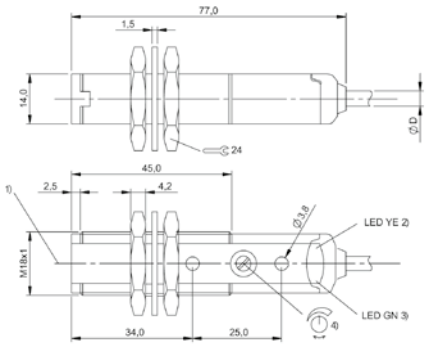
1) Optical axis, 2) Output function

BOS01NA



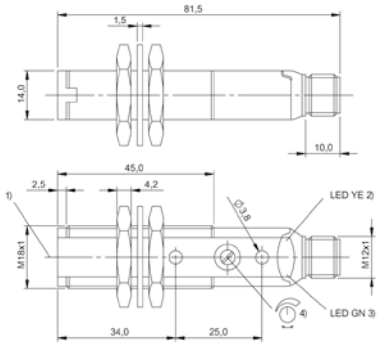
1) Optical axis, 2) Output function

BOS00K9



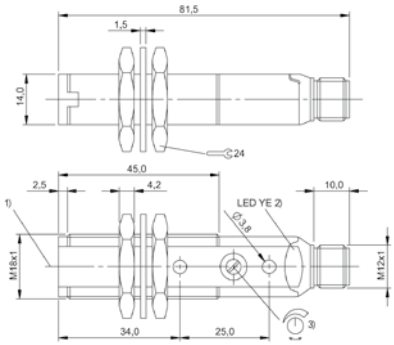
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00K0



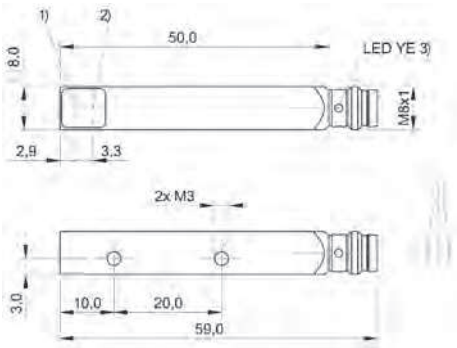
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00JZ, BOS00K1



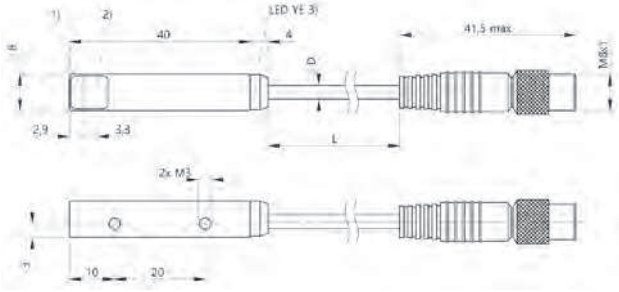
1) Optical axis, 2) Output function, 3) Sn

BOS00JP



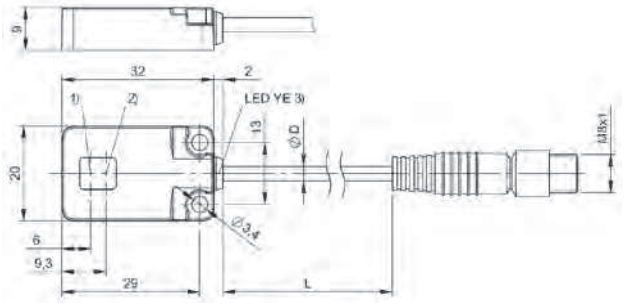
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01WC, BOS01RJ



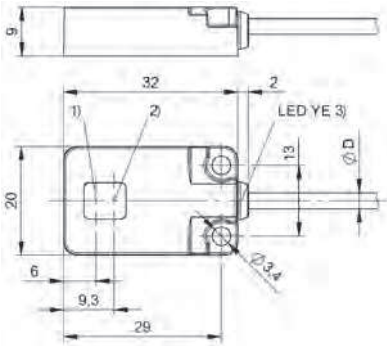
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01RZ



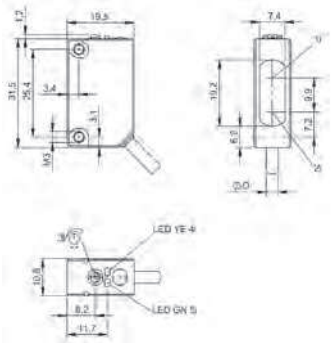
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021J



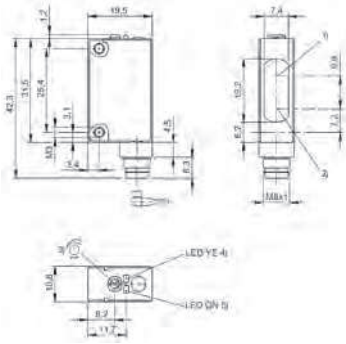
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021K



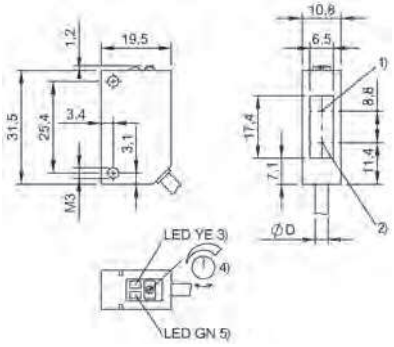
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS0123



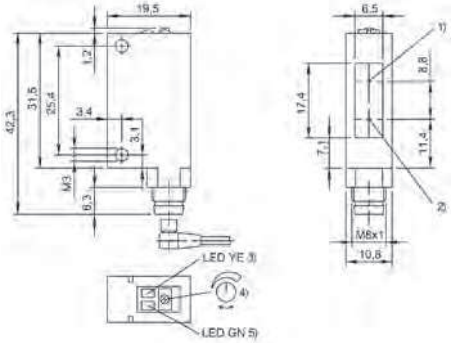
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS015J, BOS0124



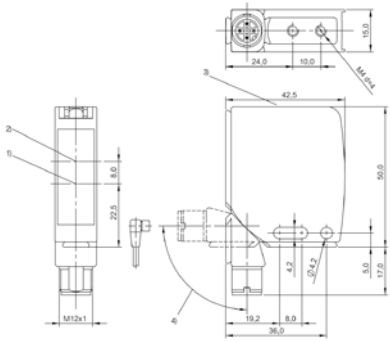
1) Optical axis receiver, 2) Optical axis emitter, 3) Output function, 4) Sn, 5) stability

BOS0127



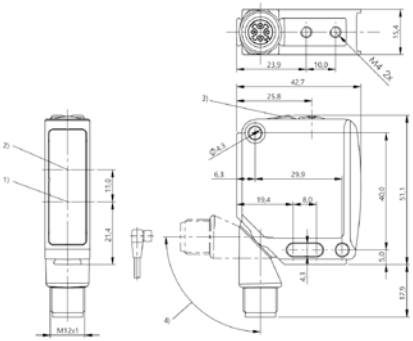
1) Optical axis receiver, 2) Optical axis emitter, 3) Output function, 4) Sn, 5) stability

BOS015N, BOS0128



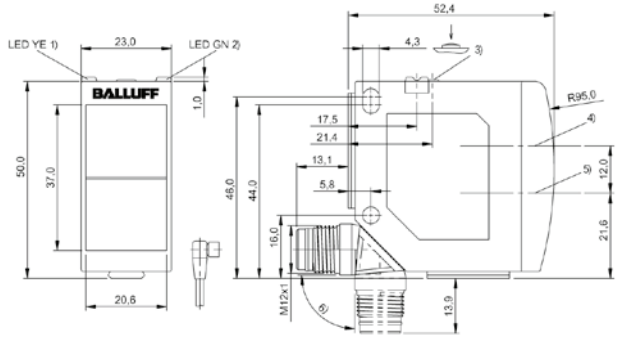
1) Optical axis emitter, 2) Optical axis receiver, 3) Display and control panel, 4) rotatable 270°

BOS0031, BOS0032, BOS0033



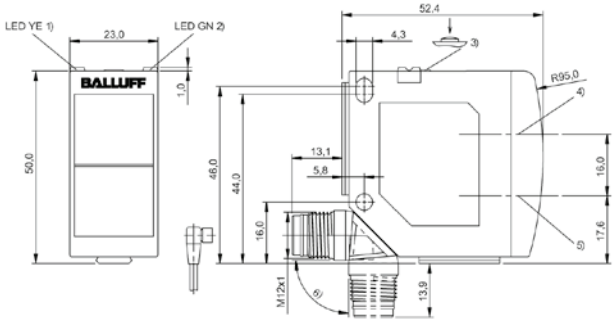
1) Optical axis emitter, 2) Optical axis receiver, 3) Display and control panel, 4) 240° rotatable

BOS027N



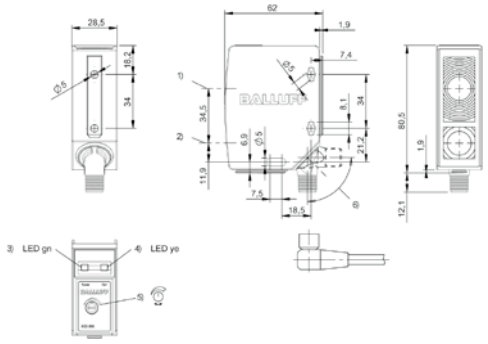
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

BOS0175



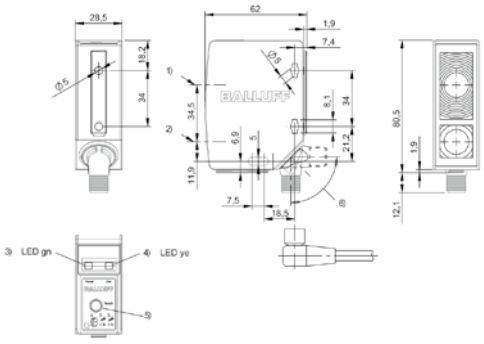
1) Output function/Error, 2) Power/setting mode, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

BOS01FM, BOS016Z



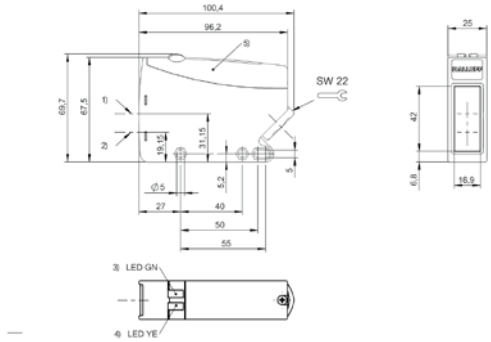
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn, 6) rotatable 270°

BOS01CJ



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

BOS01JJ, BOS01JA



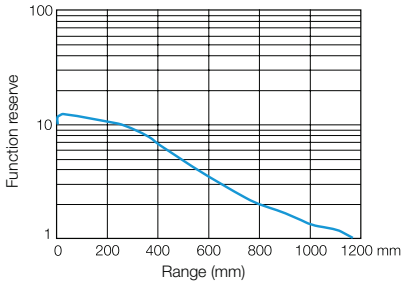
1) Optical axis receiver, 2) Optical axis emitter, 3) Stability, 4) Output function, 5) Removable cover

BOS01K2

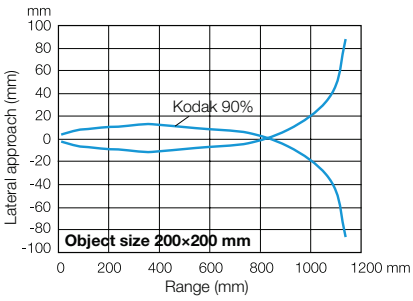
Do you need more details? Our Product Finder at www.balluff.com provides you with product-specific information, including technical drawings, data sheets, user guides and more for each individual product. All items are available for download.

Diffuse sensor BOS 5K-_ _-ID10-_ _

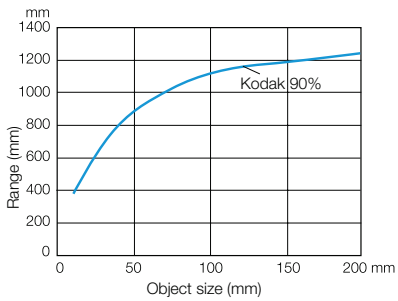
Receiving characteristics



Characteristic response curve

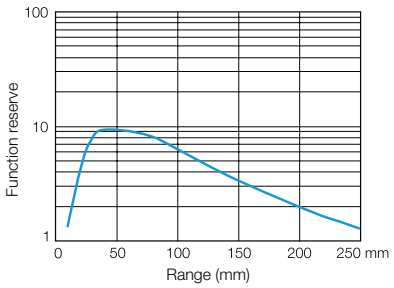


Object size vs. hysteresis

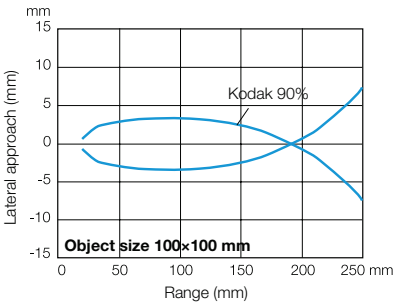


Diffuse sensor, small beam BOS 5K-_ _-RD11-_ _

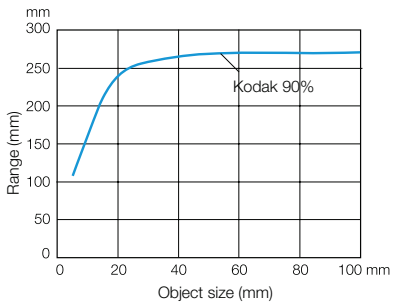
Receiving characteristics



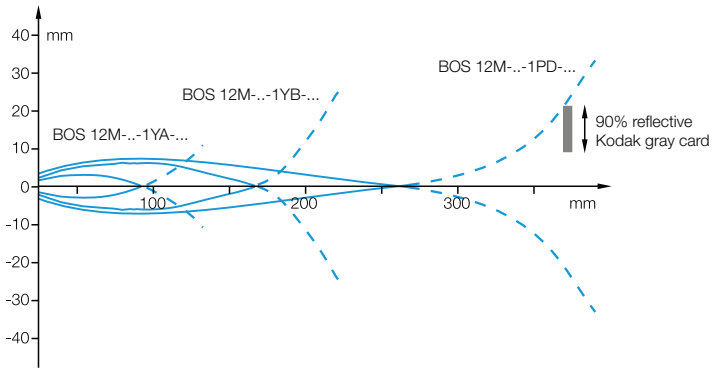
Characteristic response curve



Object size vs. hysteresis

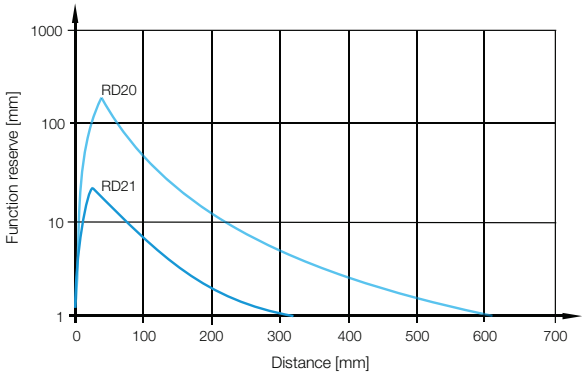


Diffuse sensor BOS 12M-..-1YA/1YB/1PD-...

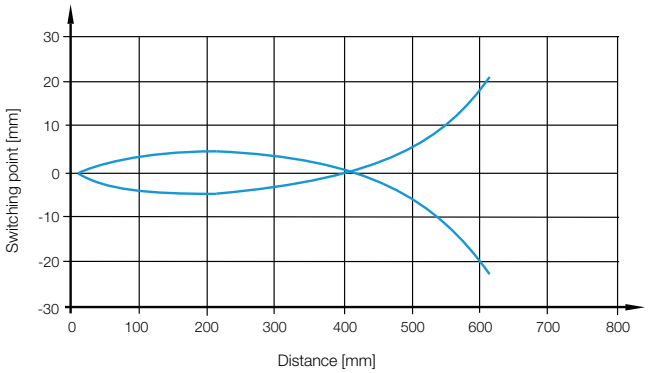


Sensing distance measured with side approach of Kodak gray card.

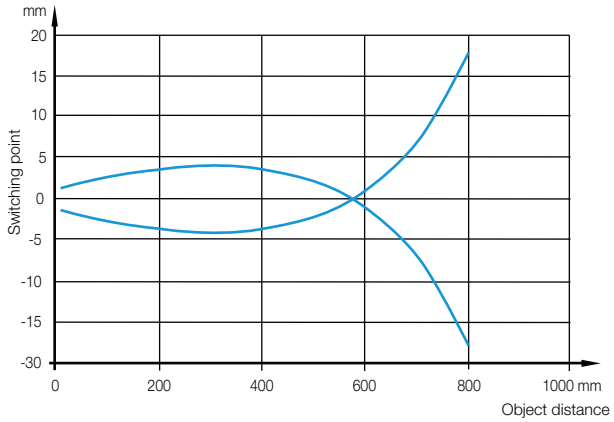
Diffuse sensor BOS 18M...RD function reserve



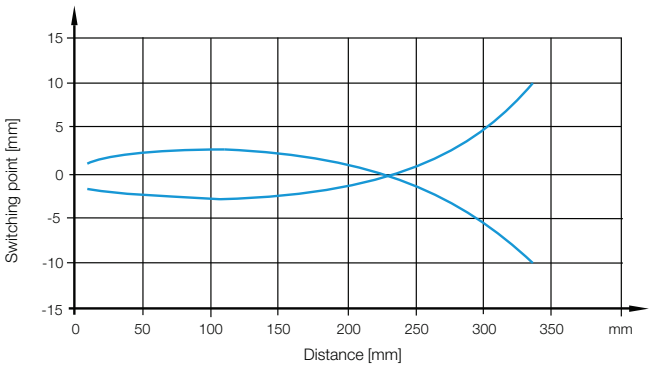
Diffuse sensor BOS 18M...RD20 Response curve



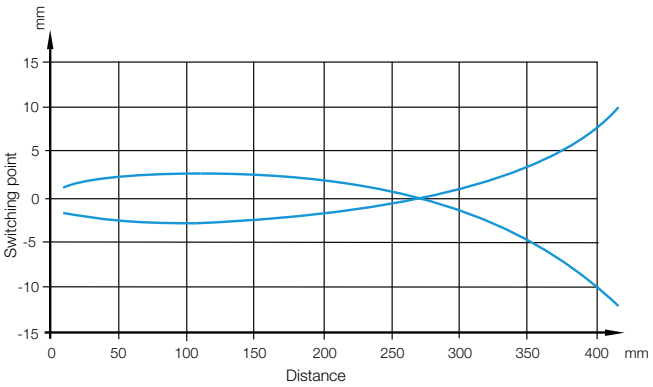
Diffuse sensor BOS 18M...ID20-S4 response curve



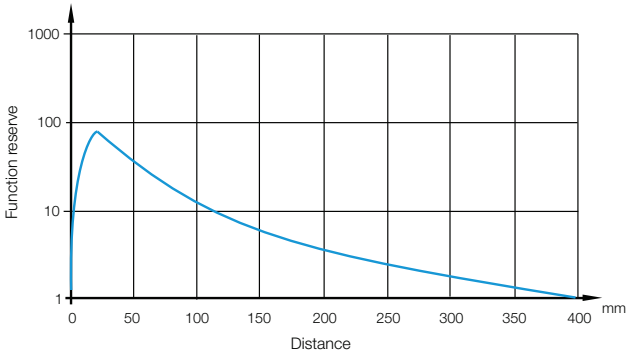
Diffuse sensor BOS 18M...RD21.. Response curve



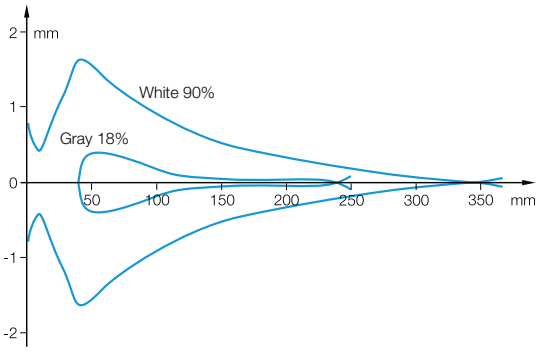
Diffuse sensor BOS 18M...RD23 response curve



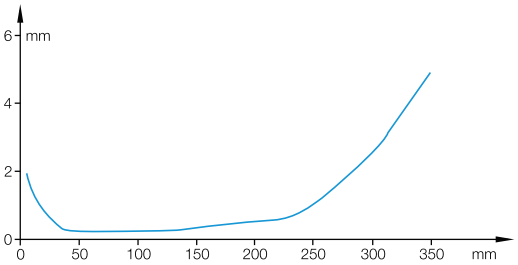
Diffuse sensor BOS 18M...RD23 function reserve



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

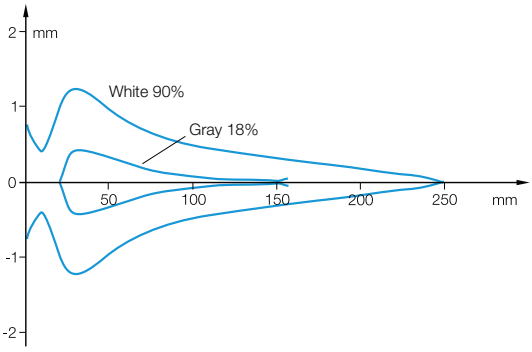


Detection range

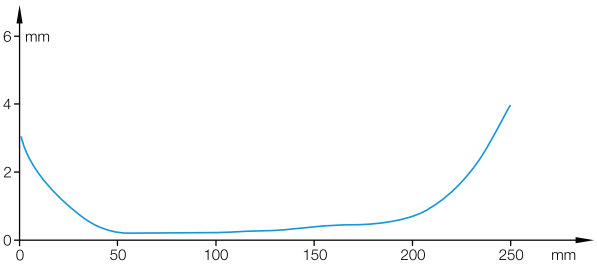


Resolution

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

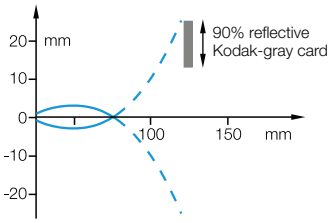


Detection range



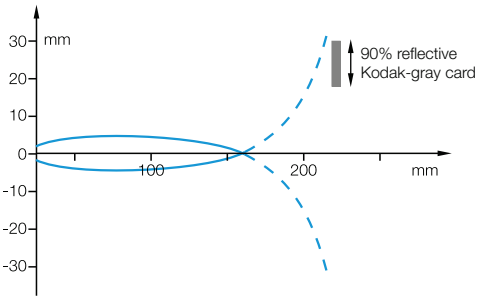
Resolution

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



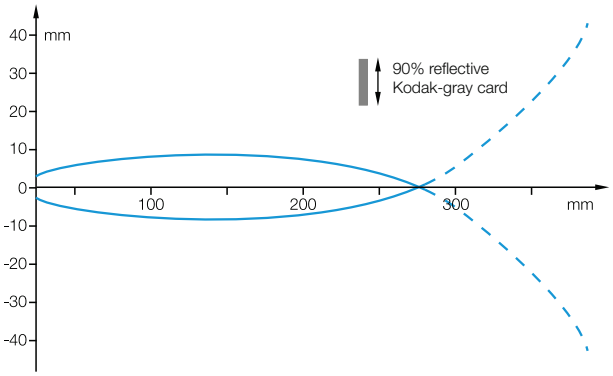
Sensing distance with side approach of Kodak-gray card.

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



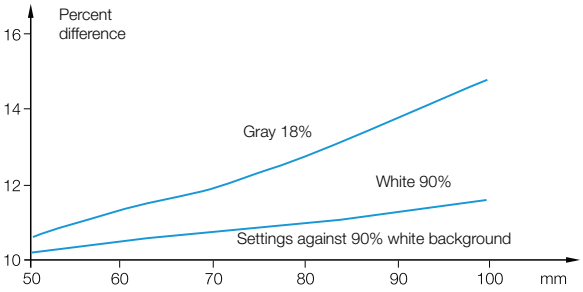
Sensing distance with side approach of Kodak-gray card.

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

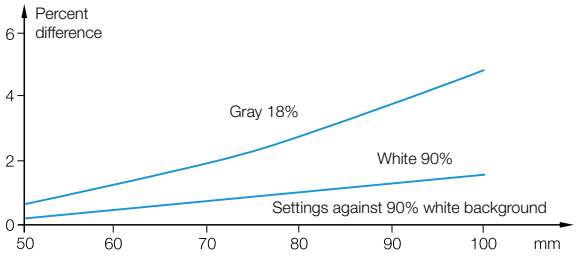


Sensing distance with side approach of Kodak-gray card.

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

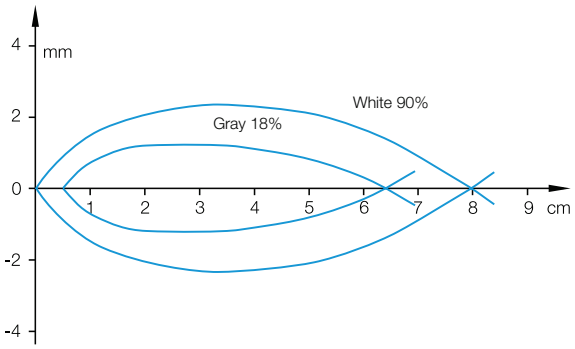


Tolerance with standard setting

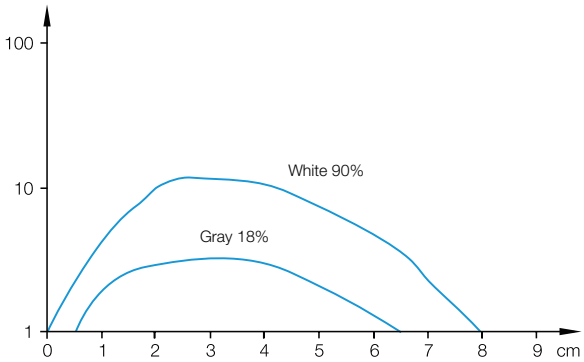


Tolerance with fine setting

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

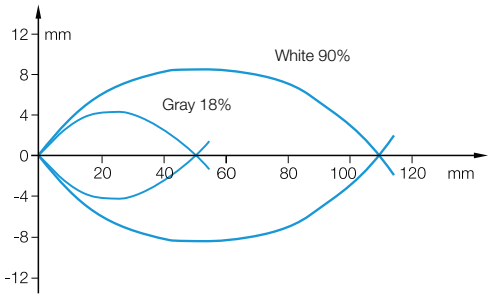


Detection range

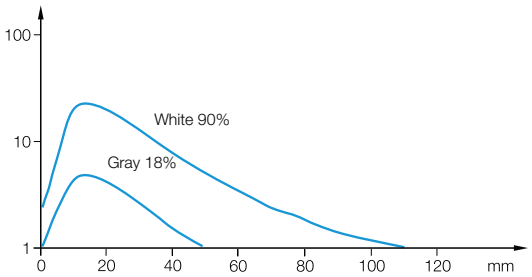


Function reserve

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

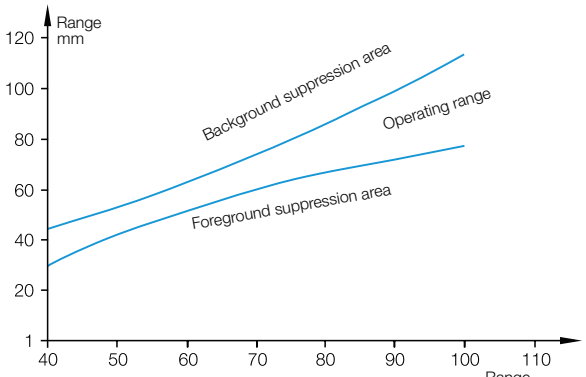


Detection range



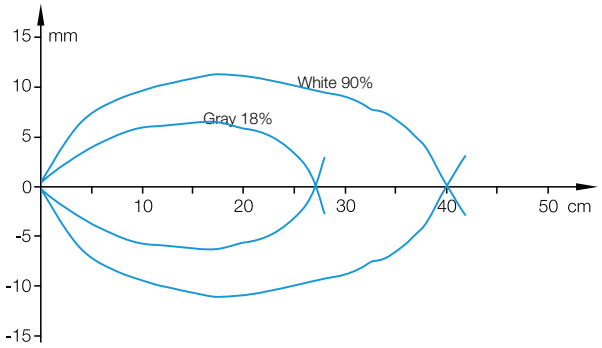
Function reserve

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

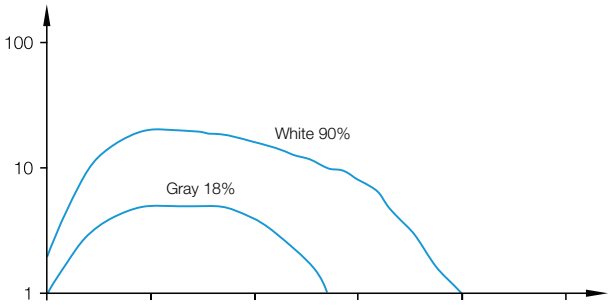


Hysteresis with standard setting

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

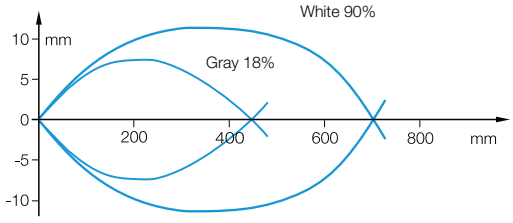


Detection range

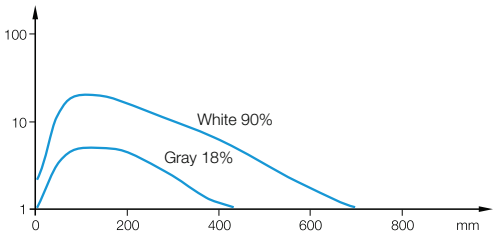


Function reserve

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

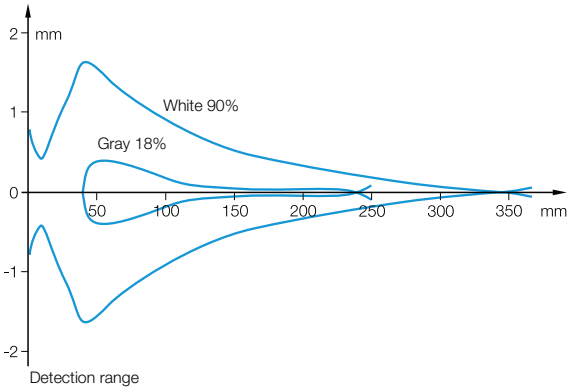


Detection range

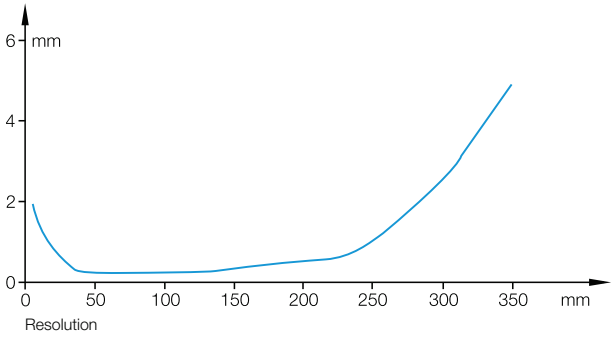


Function reserve

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

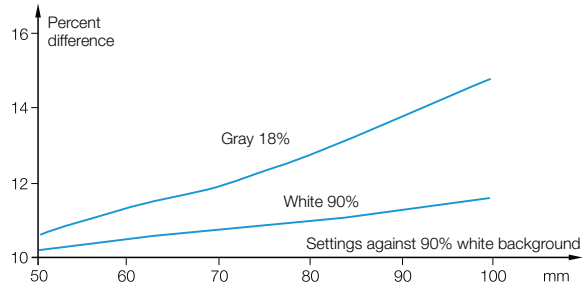


Detection range

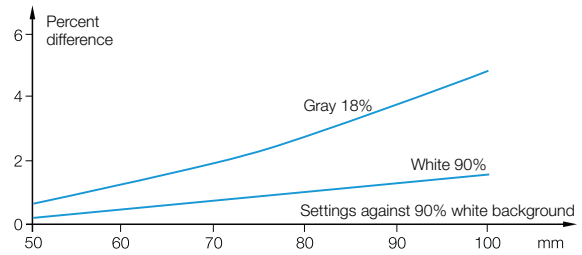


Resolution

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

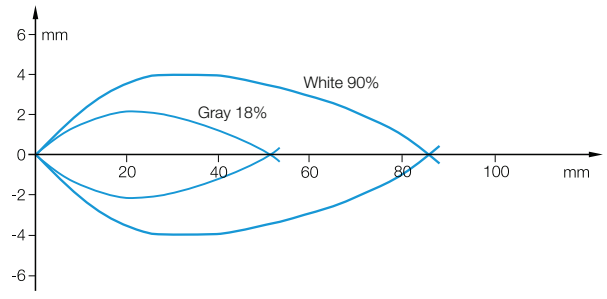


Tolerance with standard setting

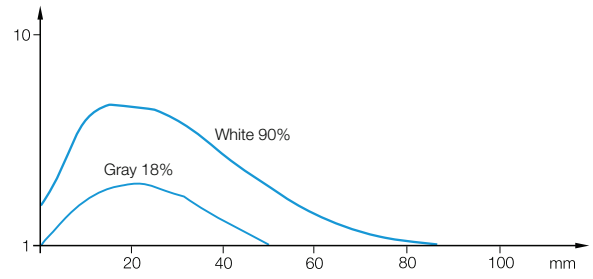


Tolerance with fine setting

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

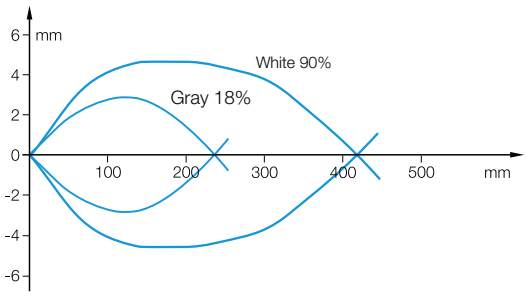


Detection range

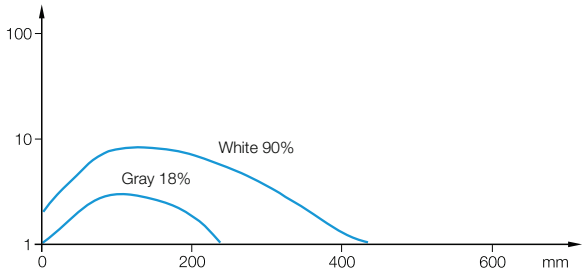


Function reserve

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

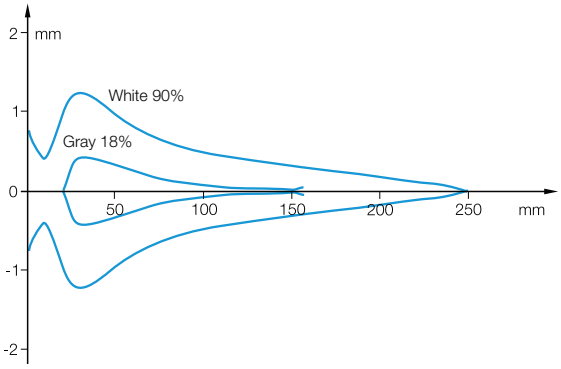


Detection range

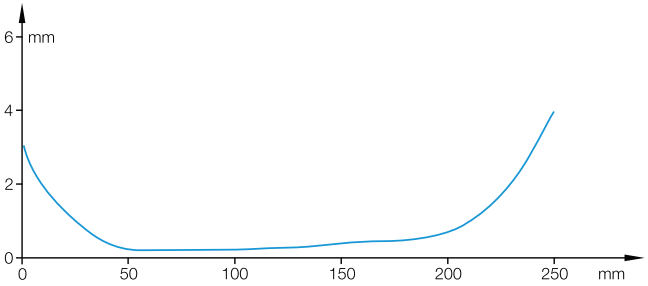


Function reserve

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

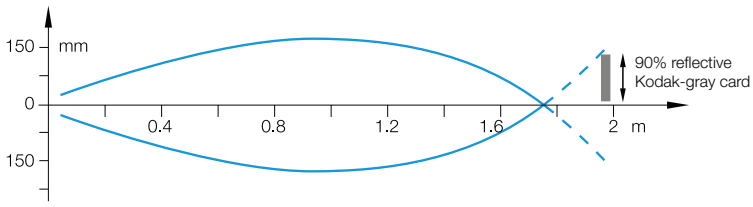


Detection range



Resolution

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



Sensing distance with side approach of Kodak-gray card.



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-Male, 3-pin, 0.20 m, PUR	Connector, M8x1-Male, 3-pin	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, EAC, cULus, WEEE, IO-Link	CE, EAC, cULus, WEEE, IO-Link	CE, cULus, EAC, WEEE	
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 2 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-Male, 3-pin	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR	Connector, M8x1-Male, 3-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Stainless steel	Stainless steel	Stainless steel	Brass, nickel plated	Brass, nickel plated
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	–	–	–	–	–
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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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Brass, nickel plated	Brass, Chrome-plated	Brass, nickel plated	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, WEEE	CE, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE
	—	—	—	—	—
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2 × PNP normally open/normally closed		**BOS00LH** BOS 18KW-PA-1HA-S4-C	**BOS00JW** BOS 18KF-PA-1N1R-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 93.5 mm	Ø 18 x 71.5 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	Fixed background suppression	
Beam characteristic	Focus, typical at 16 mm	—	Focused	
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 20 mm at 100 mm	
Range	0...40 mm	50...100 mm	5...100 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Stainless steel (1.4571)	PBT	PBT	
Material sensing surface	Glass	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, WEEE, EAC	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	Global	Global	
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	BOS00JM BOS 18KF-PA-1HA-S4-C				
		BOS021C BOS R020K-PS-RF10-00,2-S49	BOS020M BOS R020K-PS-RF11-00,2-S49	BOS020N BOS R020K-PS-RF11-00,2-S75	BOS020K BOS R020K-PS-RF11-02
	18KF	R020K	R020K	R020K	R020K
	Ø 18 x 96 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	7.7 x 26.8 x 13.5 mm
	–	–	–	–	–
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, triangulation	Diffuse sensor, HGA fixed	Diffuse sensor, HGA fixed	Diffuse sensor, HGA fixed	Diffuse sensor, HGA fixed
	Background suppression	Background suppression	Background suppression	Background suppression	Background suppression
	–	Focus, typical at 7.5 mm	Focus, typical at 15 mm	Focus, typical at 15 mm	Focus, typical at 15 mm
	LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
	Ø 8 mm at 100 mm	Ø 2 mm at 8 mm	Ø 3 mm at 15 mm	Ø 3 mm at 15 mm	Ø 3 mm at 15 mm
	50...100 mm	1...15 mm	1...30 mm	1...30 mm	1...30 mm
	Connector, M12x1-Male, 4-pin	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PVC	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PVC	Cable with connector, M8x1-Male, 4-pin, 0.20 m, PVC	Cable, 2.00 m, PVC
	PBT	ABS	ABS	ABS	ABS
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	Global	–	–	–	–
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PNP normally open	**BOS0217** BOS R020K-PS-RF12-00,2-S49	**BOS0234** BOS R020K-PS-RH12-00,2-S75	**BOS022C** BOS R020K-PS-RH12-02	
PNP normally open/normally closed				
Series	R020K	R020K	R020K	
Dimension	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	
Supplementary output	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Diffuse sensor, HGA fixed	Diffuse sensor, triangulation	Diffuse sensor, triangulation	
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 4.5 mm at 40 mm	Ø 4.4 mm at 80 mm	Ø 4.4 mm at 80 mm	
Range	1...60 mm	1...150 mm	1...150 mm	
Connection	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PVC	Cable with connector, M8x1-Male, 4-pin, 0.20 m, PVC	Cable, 2.00 m, PVC	
Housing material	ABS	ABS	ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	—	—	
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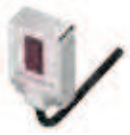

	BOS021U BOS R01E-PS-KF20-00,2-S49	BOS021W BOS R01E-PS-KF20-02	BOS022N BOS R01E-PS-KF21-02	BOS0265 BOS R01E-UI-KH22-00,2-S49	BOS01JK BOS 5K-PU-LH12-S75
	R01E	R01E	R01E	R01E	5K
	20 x 32 x 9 mm	20 x 32 x 9 mm	20 x 32 x 9 mm	20 x 32 x 9 mm	10.8 x 43.5 x 19.5 mm
	—	—	—	—	—
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation
	Fixed background suppression	Fixed background suppression	Fixed background suppression	Background suppression	Background suppression
	Divergent	Divergent	Divergent	Divergent	Focus, typical at 260 mm
	LED, red light	LED, red light	LED, red light	LED, red light	Laser red light
	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	Ø 3.0 mm Light exit	0.2 x 0.3 mm at focal point
	100 mm	100 mm	50 mm	1...100 mm	20...300 mm
	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR	Cable, 2.00 m, PUR	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR	Connector, M8x1-Male, 4-pin
	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)	PC PBT
	PA	PA	PA	PA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, Ecolab, EAC, WEEE	cULus, CE, Ecolab, EAC, WEEE	cULus, CE, Ecolab, EAC, WEEE	cULus, CE, Ecolab, EAC, IO-Link, WEEE	CE, cULus, CDRH, EAC, WEEE
	—	—	—	—	Global
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PNP normally open		**BOS015U** BOS 5K-PS-RH12-S49	**BOS012A** BOS 5K-PS-RH12-S75	
PNP normally open, PNP normally closed				
PNP normally open/normally closed				
NPN normally open	**BOS011E** BOS 5K-NS-RH12-02			
Series	5K	5K	5K	
Dimension	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	
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 60 mm	Focus, typical at 60 mm	Focus, typical at 60 mm	
Light type	LED, red light	LED, red light	LED, red light	
Light spot size	Ø 5 mm at 60 mm	Ø 5 mm at 60 mm	Ø 5 mm at 60 mm	
Range	40...200 mm	40...200 mm	40...200 mm	
Connection	Cable, 2.00 m, PVC	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 4-pin	
Housing material	PC PBT	PC PBT	PC PBT	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	
Trademark	Global	Global	Global	
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					BOS01Z9 BOS 21M-PA-LH23-S4
	BOS01LE BOS 6K-PU-LH10-S75	**BOS01KW** BOS 6K-PU-RH10-S49	**BOS01KY** BOS 6K-PU-RH10-S75	**BOS01L3** BOS 6K-PU-RH11-S75	
	6K	6K	6K	6K	21M
	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	15 x 51 x 42.5 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, triangulation
	Background suppression	Background suppression	Background suppression	Background suppression	Background suppression
	Focused	Focus, typical at 50 mm	Focus, typical at 50 mm	Focus, typical at 60 mm	Focus, typical at 400 mm
	Laser red light	LED, red light	LED, red light	LED, red light	Laser red light
	Ø 1.2 mm at 120 mm	5 x 5 mm at focal point	5 x 5 mm at focal point	8 x 8 mm at focal point	Ø 3 mm at 200 mm
	4...120 mm	1...200 mm	1...200 mm	3...400 mm	1...250 mm
	Connector, M8x1-Male, 4-pin	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 4-pin	Connector, M8x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	ABS	ABS	ABS	ABS	Zinc, Die casting, Powder coated Aluminum
	PMMA	PMMA	PMMA	PMMA	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, CDRH, EAC, WEEE
	–	–	–	–	–
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2 × PNP/NPN/push-pull, normally open/normally closed, IO-Link 1.1	**BOS026K** BOS 21M-UUI-LH31-S4			
PNP normally open, PNP normally closed		**BOS01Z8** BOS 21M-PA-RH22-S4		
PNP normally open/normally closed			**BOS0036** BOS 21M-PUS-RV13-S4	
normally open/normally closed				
Series	21M	21M	21M	
Dimension	15 x 51 x 42.5 mm	15 x 51 x 42.5 mm	15 x 50 x 42.5 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, CCD technology	Background suppression	Background suppression, Foreground suppression	
Beam characteristic	Focus, typical at 400 mm	Focus, typical at 200 mm	—	
Light type	Laser red light	LED, red light	LED, red light	
Light spot size	0.5 x 1.5 mm at 200 mm	6 x 6 mm at 200 mm	—	
Range	30...200 mm	1...400 mm	70...200 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Zinc, Die casting, Painted Aluminum, Glass, PC	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum	
Material sensing surface	Glass, anti-glare	Glass	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, EAC, cULus, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	—	—	
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	BOS0285 BOS R254K-UUI-LH10-S4				
		BOS01FR BOS 23K-PA-LH10-S4			**BOS01FL** BOS 23K-PA-RH10-S4
		BOS017C BOS 23K-PU-LH10-S4	**BOS017H** BOS 23K-PU-LH20-S4		**BOS0178** BOS 23K-PU-RH10-S4
				BOS01UW BOS 23K-UU-LH11-S92	
	R254K	23K	23K	23K	23K
	20.4 x 60.3 x 49.5 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 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	Light time-of-flight	Diffuse sensor, triangulation
	Background suppression, CCD technology	Background suppression	Background suppression	Background suppression	Background suppression
	Focus, typical at 400 mm	Collimated	Collimated	Divergent	Focus, typical at 500 mm
	Laser red light	Laser red light	Laser red light	Laser red light	LED, red light
	0.4 x 1.3 mm at 250 mm	2.2 x 2.2 mm at 800 mm	2.5 x 3.5 mm at 800 mm	Ø 7 mm at 5 m	15 x 15 mm at focal point
	30...250 mm	5...800 mm	5...800 mm	0...5 m	3...800 mm
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1, 5-pin	Connector, M12x1-Male, 4-pin
	PA 12 PA PACM 12	PC ABS	PC ABS	PC ABS	PC ABS
	PA PACM 12	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	12...30 VDC	12...30 VDC	18...30 VDC	10...30 VDC
	CE, EAC	CE, Ecolab, cULus, EAC, WEEE	Ecolab, CE, cULus, EAC, WEEE	CE, Ecolab, cULus, EAC, WEEE	CE, Ecolab, cULus, EAC, WEEE
	—	—	—	—	—
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PNP normally open				
PNP normally open, PNP normally closed	**BOS008A** BOS 26K-PA-1IE-S4-C	**BOS008E** BOS 26K-PA-1LHB-S4-C	**BOS008F** BOS 26K-PA-1LHC-S4-C	
Relay normally open/normally closed				
Series	26K	26K	26K	
Dimension	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 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 80 mm	Collimated	
Light type	Infrared	Laser red light	Laser red light	
Light spot size	20 x 20 mm at 400 mm	Ø 0.1 mm at focal point	3 x 1 mm at 300 mm	
Range	150...600 mm	30...150 mm	50...300 mm	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	ABS	ABS	ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, WEEE, EAC	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	
Trademark	—	—	—	
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		BOS018N BOS 50K-PS-RH12-S4	**BOS0156** BOS 50K-PSV-RH12-S4		
	BOS0089 BOS 26K-PA-1HC-S4-C	**BOS018P** BOS 50K-PA-RH12-S4			
				BOS01K1 BOS 64K-AA-IH12-TG	
	26K	50K	50K	64K	
	17 x 50 x 50 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	
	—	—	Error output PNP	—	
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	Diffuse sensor, triangulation	
	Background suppression	Background suppression	Background suppression	Background suppression	
	—	Divergent	Divergent	Divergent	
	LED, red light	LED, red light	LED, red light	Infrared	
	Ø 8 mm at 200 mm	60 x 60 mm at Sr	60 x 60 mm at Sr	—	
	30...300 mm	200...2000 mm	200...2000 mm	200...2000 mm	
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Screw terminals	
	ABS	PC ABS	PC ABS	PBT, GF30	
	PMMA	Glass	Glass	PC	
	10...30 VDC	10...30 VDC	10...30 VDC	24...60 VDC/24...240 VAC	
	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	
	—	—	—	—	
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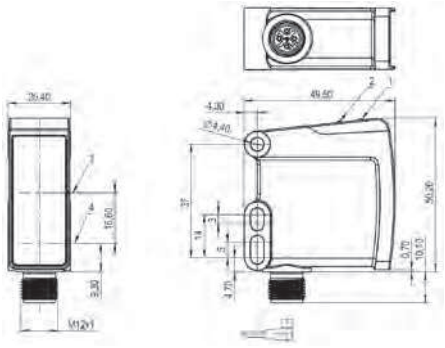
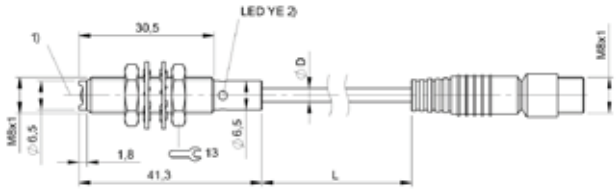


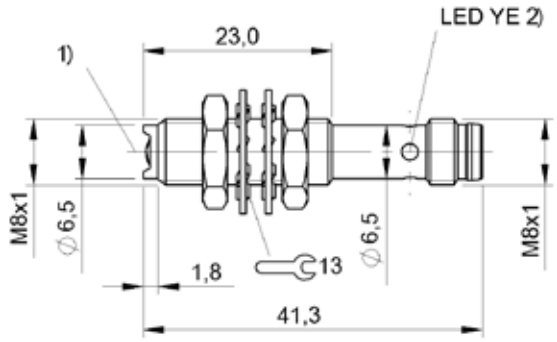
1) LED 1, 2) LED 2, 3) Optical axis receiver, 4) Optical axis emitter

BOS0285



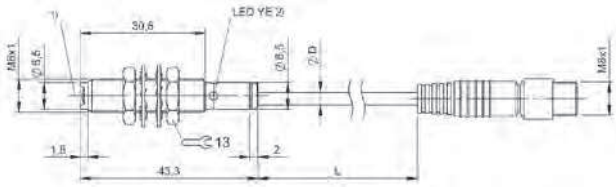
1) Optical axis, 2) Output function

BOS0246



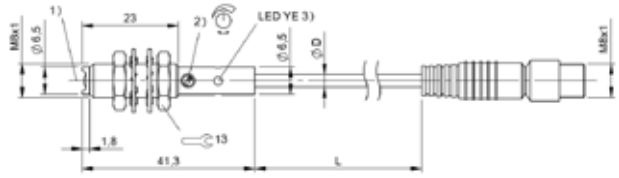
1) Optical axis, 2) Output function

BOS0247, BOS01H6



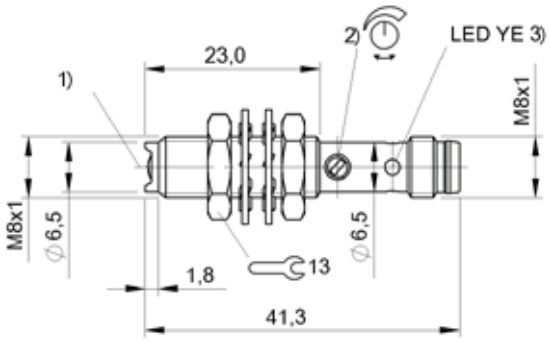
1) Optical axis, 2) Output function

BOS01H2



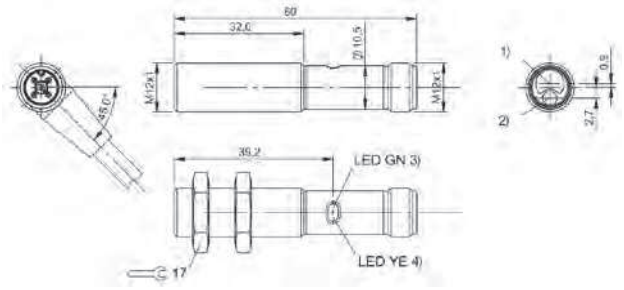
1) Optical axis, 2) Sn, 3) Output function

BOS01H0



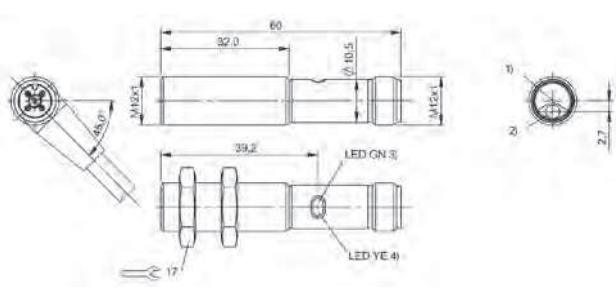
1) Optical axis, 2) Sn, 3) Output function

BOS01H4



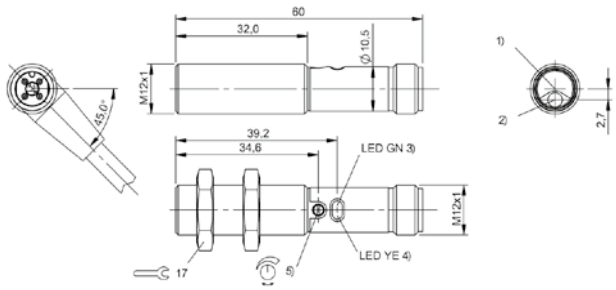
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage/Error, 4) Light reception/limit area

BOS01UM



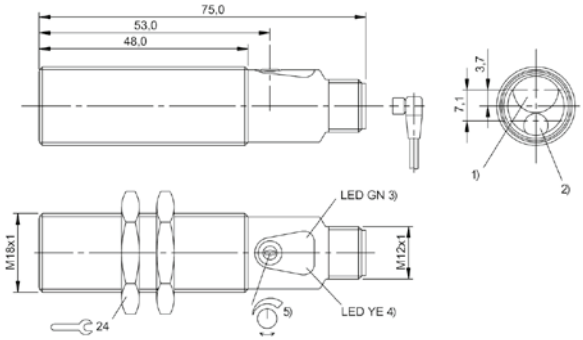
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area

BOS01ZT



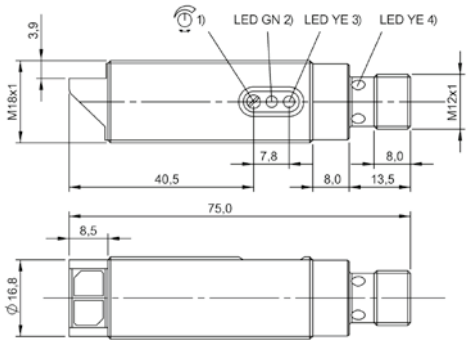
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01ZU



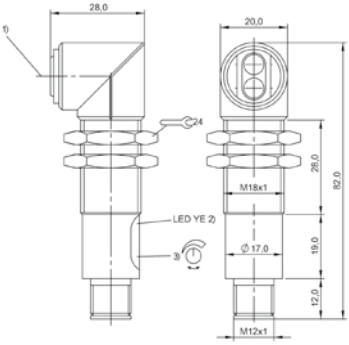
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Output function/Error, 5) Sn

BOS01C5, BOS002H, BOS002K



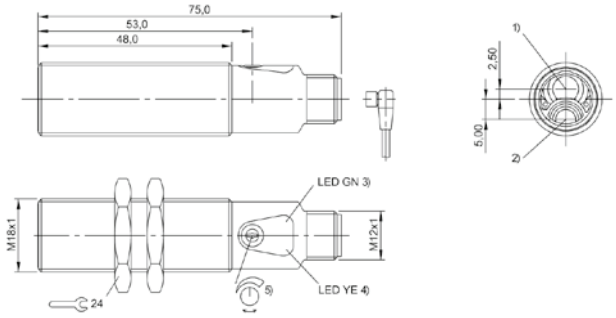
1) Sn, 2) Stability, 3) Output function

BOS010J



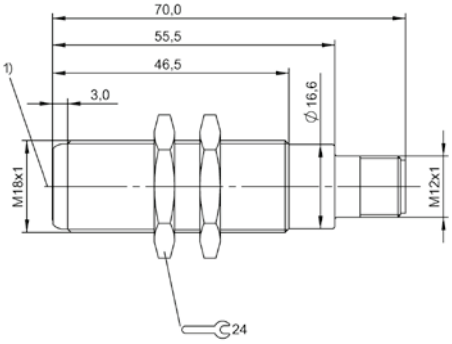
1) Optical axis, 2) Sn, 3) Output function

BOS0081



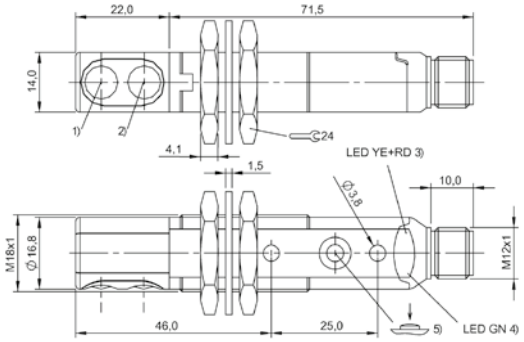
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Output function/Error, 5) Sn

BOS014W, BOS01J4



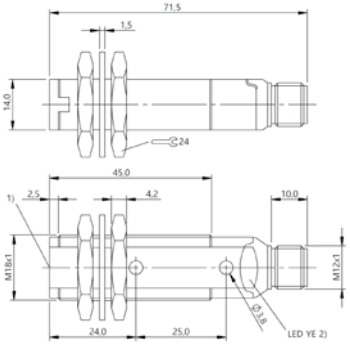
1) Optical axis

BOS0016



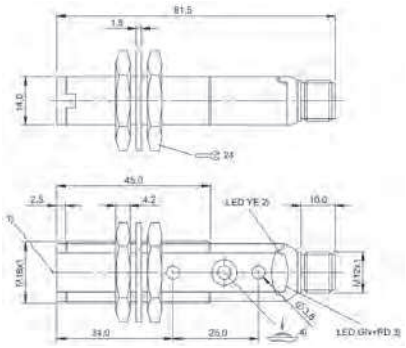
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function, 4) stability/error, 5) Sn

BOS00LH



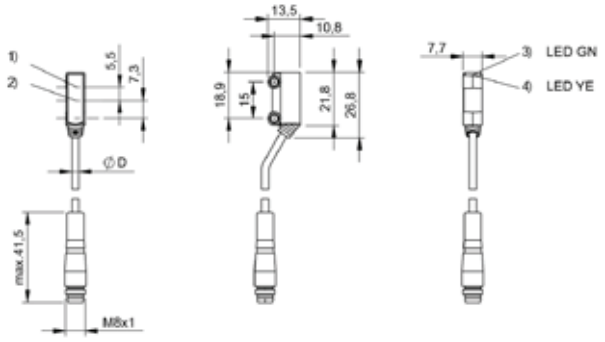
1) Optical axis, 2) Output function

BOS00JW



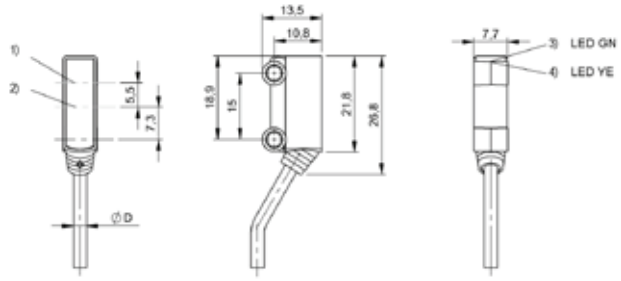
1) Optical axis, 2) Output function, 3) stability/error, 4) Sn

BOS00JM



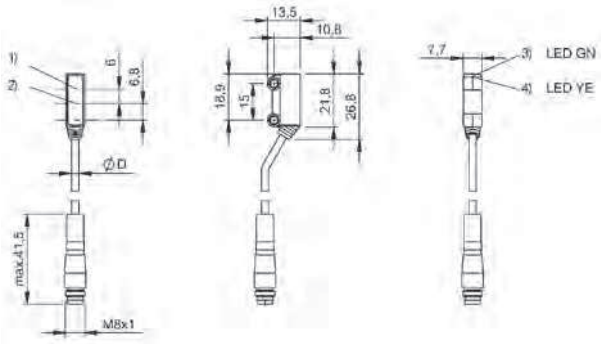
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS021C, BOS020M, BOS020N



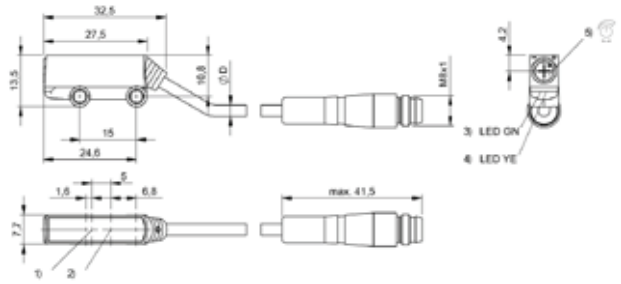
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS020K



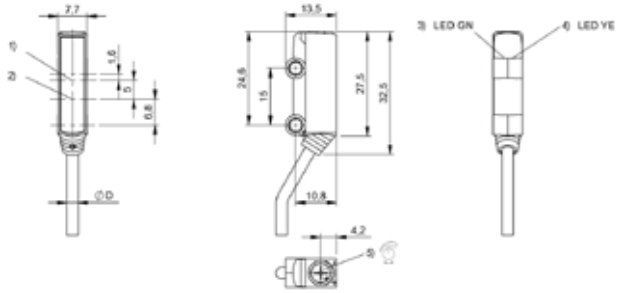
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS0217



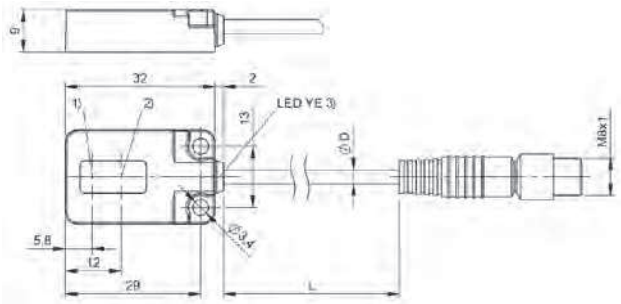
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception, 5) Sn

BOS0234



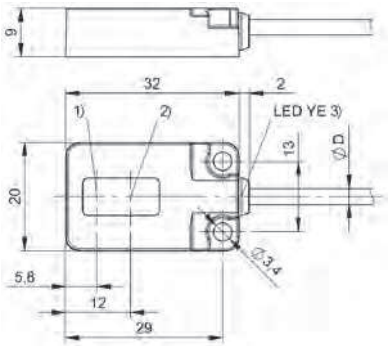
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception, 5) Sn

BOS022C



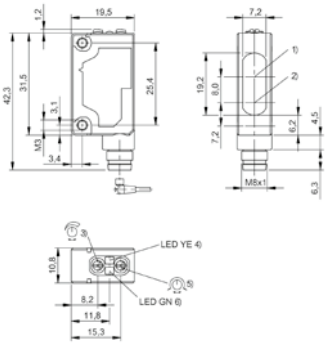
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021U, BOS0265



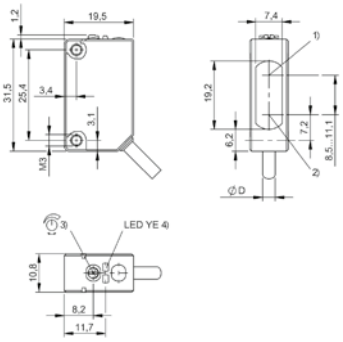
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021W, BOS022N



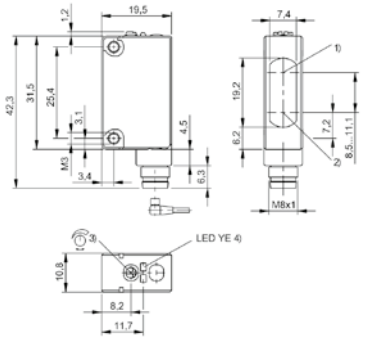
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) Light-on/dark-on, 6) stability

BOS01JK



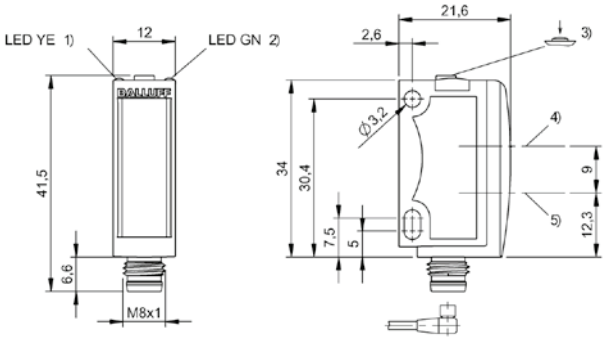
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function

BOS011E



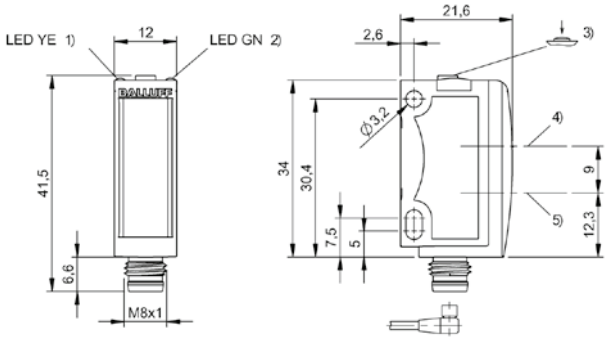
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function

BOS015U, BOS012A



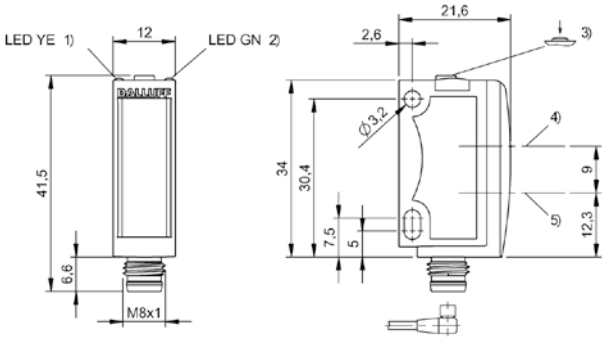
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01LE



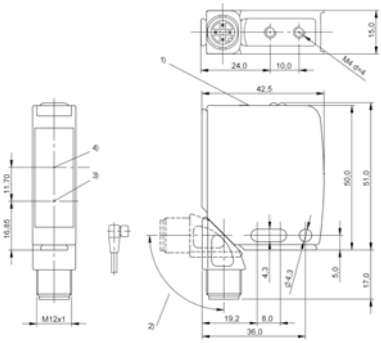
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01KW, BOS01KY



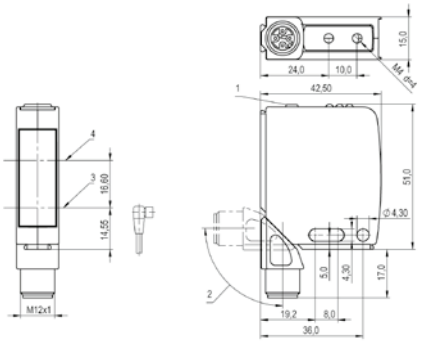
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01L3



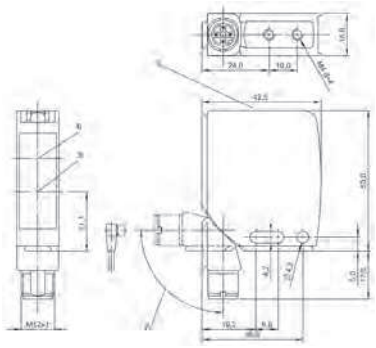
1) Display and control panel, 2) rotatable 270°, 3) Optical axis emitter, 4) Optical axis receiver

BOS01Z8, BOS01Z9



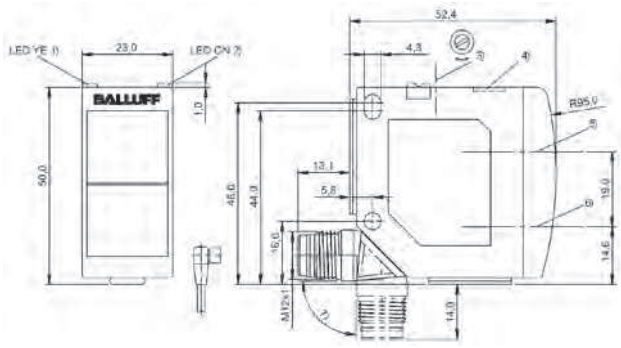
1) Display and control panel, 2) rotatable 270°, 3) Optical axis emitter, 4) Optical axis receiver

BOS026K



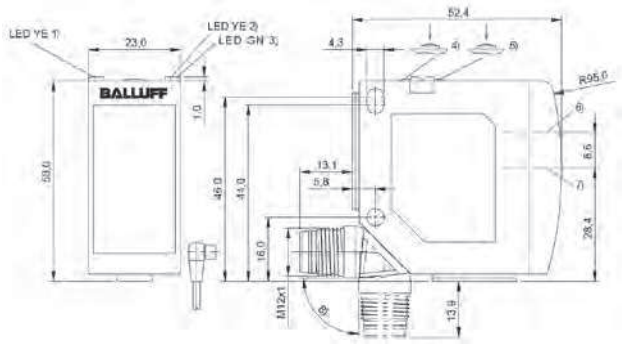
1) Display and control panel, 2) rotatable 270°, 3) Optical axis emitter, 4) Optical axis receiver

BOS0036



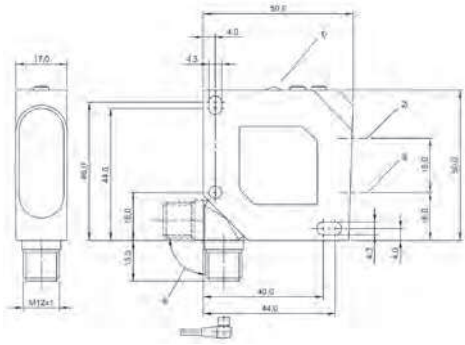
1) Output function/Error, 2) Operating voltage, 3) Sn, 4) Bar display for switching distance, 5) Optical axis receiver, 6) Optical axis emitter, 7) rotatable 270°

BOS01FR, BOS017C, BOS017H, BOS01FL, BOS0178



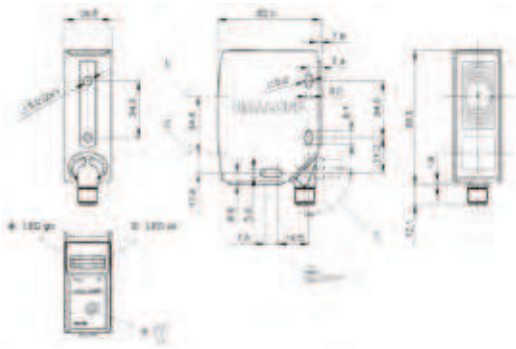
1) Output function Q1, 2) Output function Q2, 3) Operating voltage, 4) Setting Q1, 5) Setting Q2, 6) Optical axis emitter, 7) Optical axis receiver, 8) rotatable 270°

BOS01UW



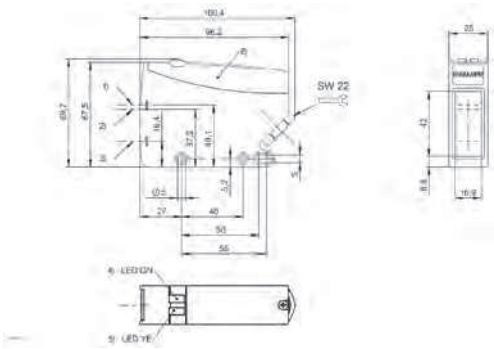
1) Display and control panel, 2) Optical axis receiver, 3) Optical axis emitter, 4) rotatable 270°

BOS008A, BOS008E, BOS008F, BOS0089



1) Optical axis receiver, 2) Optical axis emitter, 3) rotatable 270°, 4) Power/short-circuit, 5) Output function/Error, 6) Sn

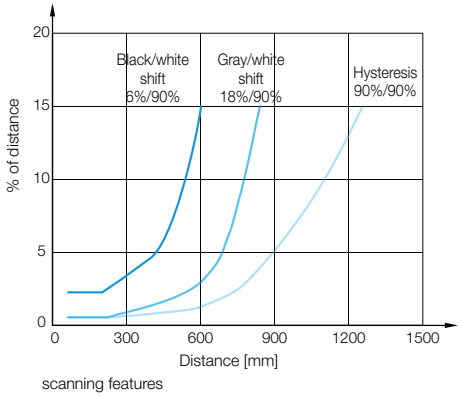
BOS018P, BOS018N, BOS0156



1) Opt. axis receiver max., 2) Opt. axis receiver min., 3) Optical axis emitter, 4) stability, 5) Output function, 6) Removable cover

BOS01K1

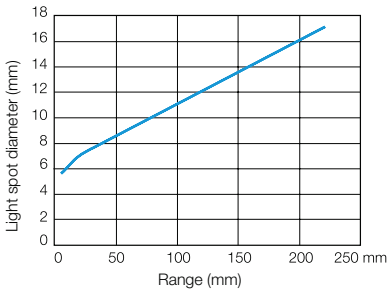
BOS01FL, BOS0178



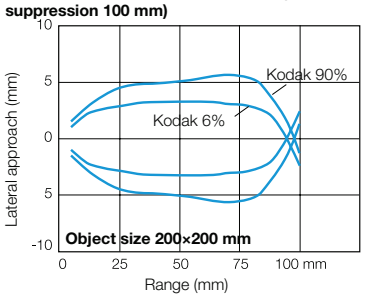
scanning features

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

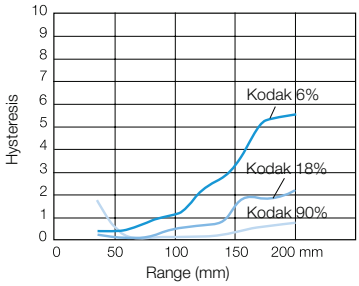
Light spot diameter



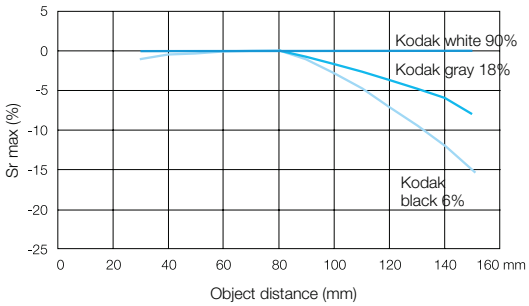
Characteristic response curve (background suppression 100 mm)



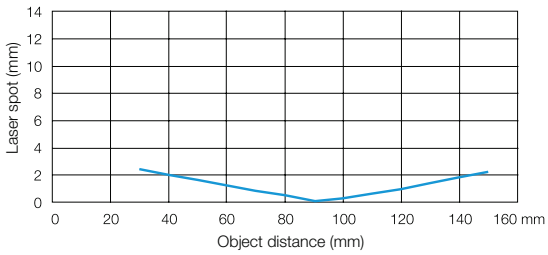
Range vs. hysteresis



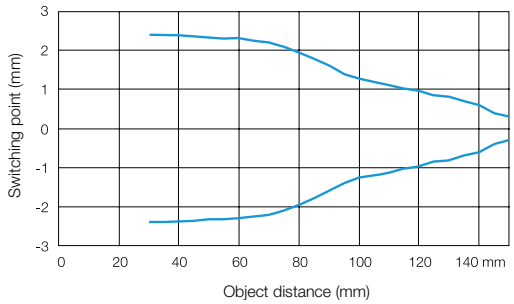
Diffuse sensor with background suppression BOS 18M-...LH Gray value shift



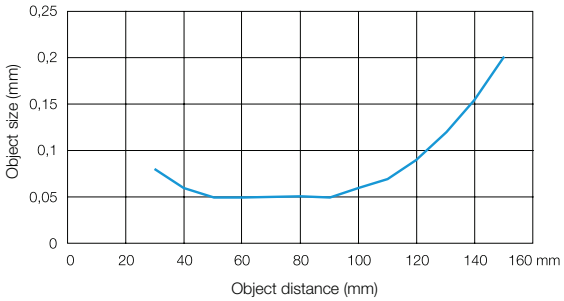
Diffuse sensor with background suppression BOS 18M-...LH Light spot diameter at distance



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-PO-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-Male, 3-pin	Cable with connector, 0.20 m, PUR	Connector, M12x1-Male, 4-pin	
Housing material	Stainless steel	Stainless steel	Brass, nickel plated	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
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	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	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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
	Glass, anti-glare	Glass, anti-glare	Glass, anti-glare	Glass	Glass, anti-glare
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE
	–	–	–	–	–
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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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	
Material sensing surface	Glass, anti-glare	Glass	Glass, anti-glare	
Operating voltage Ub	10...30 VDC	18...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	—	—	
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	BOS01KL BOS 18E-PA-PR20-S4	**BOS023Y** BOS 18E-PA-PR30-S4			
	18E	18E			
	Ø 18 x 75 mm	Ø 18 x 75 mm			
	—	—			
	Photoelectric sensor	Photoelectric sensor			
	Retroreflective sensor	Retroreflective sensor			
	—	—			
	Divergent	Divergent			
	LED, red light	LED, red light			
	Ø 300 mm at 7 m	Ø 300 mm at 7 m			
	5 m	5 m			
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin			
	Stainless steel (1.4404)	Stainless steel (1.4404)			
	Glass	PMMA			
	10...30 VDC	10...30 VDC			
	CE, cULus, Ecolab, FDA compliant, EAC, WEEE	Ecolab, cULus, CE, EAC, WEEE, FDA compliant			
	—	—			
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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 93.5 mm	Ø 18 x 93.5 mm	Ø 18 x 93.5 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	—	—	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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	PBT	PBT	PBT	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
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	
	–	–	–	–	
	LED 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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector	Connector, M12x1-Male, 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, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
	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-Male, 3-pin, 0.20 m, PUR	Connector, M8x1-Male, 3-pin	Cable with connector, 0.20 m, PUR	
Housing material	Zinc, Die casting, nickel plated	Zinc, Die casting, nickel plated	Zinc, Die casting, nickel plated	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
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	BOS021L BOS R01E-PS-KR20-00,2-S49
	Q08M	R020K	R020K	R020K	R01E
	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	20 x 32 x 9 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 3.0 mm Light exit	Ø 10 mm at 100 mm	Ø 10 mm at 100 mm	Ø 11 mm at 250 mm	Ø 3.0 mm Light exit
	0...1 m	0...3 m	0...3 m	0...3 m	1 m
	Connector, M8x1-Male, 3-pin	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PVC	Cable with connector, M8x1-Male, 4-pin, 0.20 m, PVC	Cable, 2.00 m, PVC	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR
	Zinc, Die casting, nickel plated	ABS	ABS	ABS	Stainless steel (1.4404)
	PMMA	PMMA	PMMA	PMMA	PA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, Ecolab, EAC, WEEE
	–	–	–	–	–
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PNP normally open	**BOS021M** BOS R01E-PS-KR20-02			
PNP normally closed				
PNP normally open/normally closed		**BOS01JT** BOS 5K-PU-LR10-02	**BOS01JW** BOS 5K-PU-LR10-S75	
Series	R01E	5K	5K	
Dimension	20 x 32 x 9 mm	10.8 x 32.7 x 19.5 mm	10.8 x 43.5 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	Laser red light	Laser red light	
Light spot size	Ø 3.0 mm Light exit	Ø 5 mm at 3 m	Ø 5 mm at 3 m	
Range	1 m	0...10 m	0...10 m	
Connection	Cable, 2.00 m, PUR	Cable, 2.00 m, PVC	Connector, M8x1-Male, 4-pin	
Housing material	Stainless steel (1.4404)	PC PBT	PC PBT	
Material sensing surface	PA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, Ecolab, EAC, WEEE	CE, cULus, CDRH, EAC, WEEE	cULus, CE, CDRH, EAC, WEEE	
Trademark	—	Global	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				
				BOS01M4 BOS 6K-PU-LK10-S75	BOS01MH BOS 6K-PU-PR10-S49
	5K	5K	5K	6K	6K
	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	12 x 41.5 x 21.6 mm
	–	–	–	Same function as button, Key disable on/off	–
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor
	–	–	–	Coaxial optics	–
	Divergent	Divergent	Divergent	Collimated	Divergent
	LED, red light	LED, red light	LED, red light	Laser red light	LED, red light
	Ø 160 mm at 2 m	Ø 160 mm at 2 m	Ø 160 mm at 2 m	Ø 2 mm at 2.5 m	600 x 600 mm at 7 m
	0...4 m	0...4 m	0...4 m	0...4 m	0...6 m
	Connector, M8x1-Male, 4-pin	Cable, 2.00 m, PVC	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 4-pin	Connector, M8x1-Male, 3-pin
	PC PBT	PC PBT	PC PBT	ABS	ABS
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	Global	Global	Global	–	–
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PNP normally open, PNP normally closed			**BOS00TL** BOS 21M-PA-LR10-S4	
PNP normally open/normally closed	**BOS01MJ** BOS 6K-PU-PR10-S75	**BOS01L8** BOS 6K-PU-PT10-S75		
PNP normally open/normally closed/IO-Link 1.1				
Series	6K	6K	21M	
Dimension	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	15 x 50 x 42.5 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	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	
Special optical feature	—	Coaxial optics, Transparency detection	—	
Beam characteristic	Divergent	Divergent	Collimated	
Light type	LED, red light	LED, red light	Laser red light	
Light spot size	600 x 600 mm at 7 m	50 x 50 mm at 2 m	—	
Range	0...6 m	0...2 m	0...20 m	
Connection	Connector, M8x1-Male, 4-pin	Connector, M8x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	ABS	ABS	Zinc, Die casting, Powder coated Aluminum	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	—	—	
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	BOS00TN BOS 21M-PA-PK10-S4	BOS00TR BOS 21M-PA-PR10-S4	BOS00TU BOS 21M-PA-PT10-S4		
				BOS027M BOS 21M-PAI-PR30-S4	BOS0286 BOS R254K-UUI-PR10-S4
	21M	21M	21M	21M	R254K
	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm	15 x 50 x 42.5 mm	15.4 x 51.1 x 42.7 mm	20.4 x 60.3 x 49.5 mm
	–	–	–	–	–
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor	Retroreflective sensor
	Coaxial optics	–	Coaxial optics, Transparency detection	–	–
	Divergent	Divergent	–	Divergent	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
	–	–	–	–	200 x 200 mm at 8 m
	0...4 m	0...8 m	0...2 m	0...10 m	8 m
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Die-cast zinc	PA 12 PA PACM 12
	Glass	PMMA	Glass	PMMA	PA PACM 12
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, WEEE, EAC, Ecolab	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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 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, WEEE	Ecolab, CE, cULus, EAC, WEEE	Ecolab, CE, cULus, EAC, WEEE	
Trademark	—	—	—	
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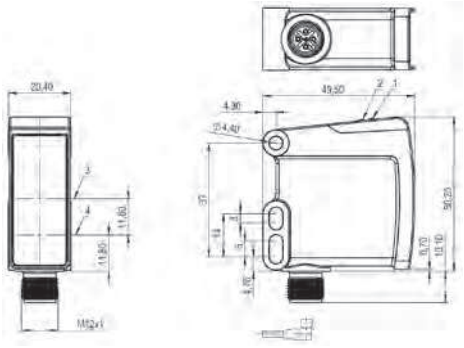
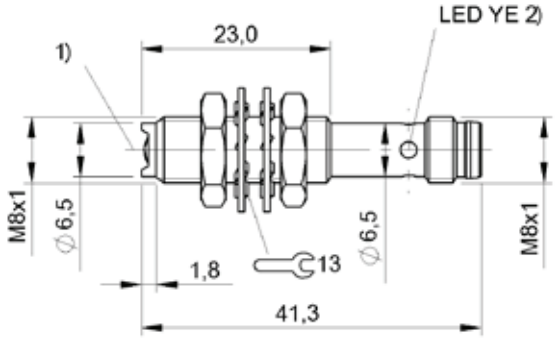
		BOS008L BOS 26K-PA-1LQP-S4-C	**BOS008M** BOS 26K-PA-1QE-S4-C	**BOS01CR** BOS 50K-PA-PR10-S4	
	BOS016P BOS 23K-PU-RR10-S4				
					BOS01K3 BOS 64K-AA-PR10-TG
	23K	26K	26K	50K	64K
	23 x 51 x 52.4 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	28.5 x 80.5 x 62 mm	25 x 69.7 x 100.4 mm
	Key disable on/off, Same function 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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 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, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	–	–	–	–	–
	Page 414	Page 414	Page 414	Page 414	Page 414



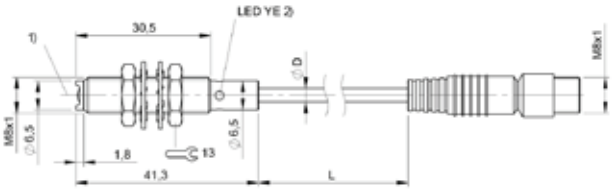
1) LED 1, 2) LED 2, 3) Optical axis receiver, 4) Optical axis emitter

BOS0286



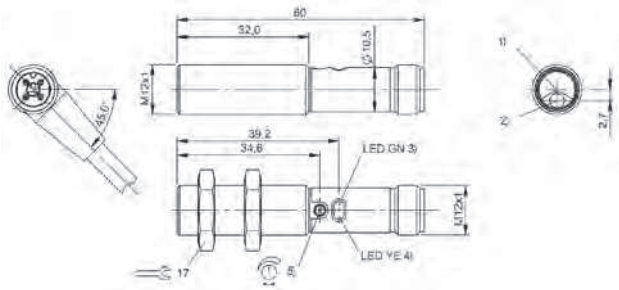
1) Optical axis, 2) Output function

BOS01RM, BOS01RK



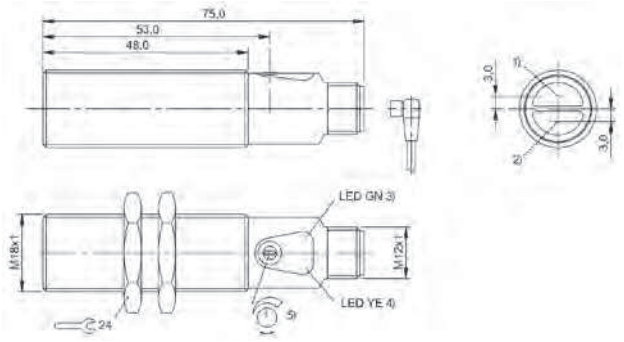
1) Optical axis, 2) Output function

BOS01RL



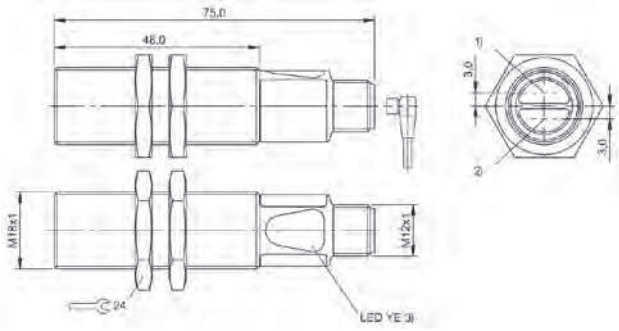
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01TT



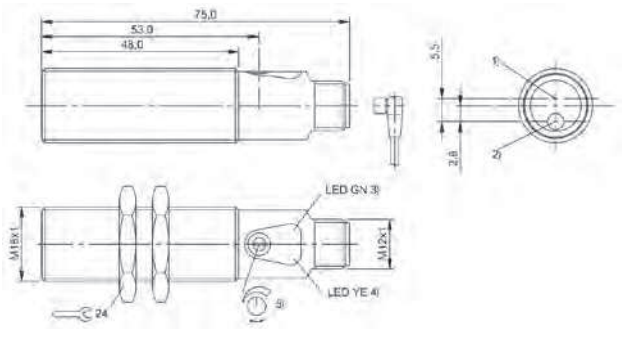
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01F0, BOS01HR, BOS01CE, BOS01FJ



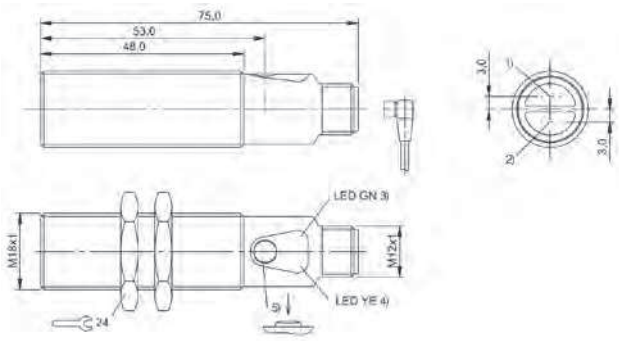
1) Optical axis receiver, 2) Optical axis emitter, 3) Light reception/limit area

BOS01HK, BOS01F8



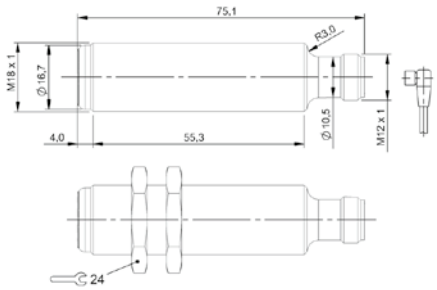
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage/Error, 4) Light reception/limit area, 5) Sn

BOS01NE



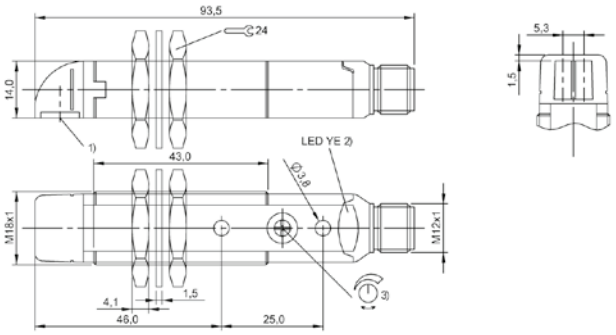
1) Optical axis receiver, 2) Optical axis emitter, 3) Power/short-circuit, 4) Light reception/limit area, 5) Sn

BOS01UE



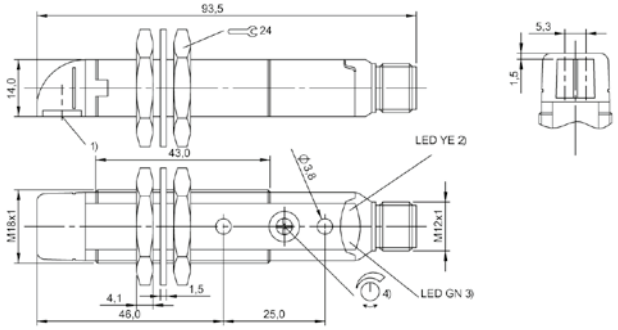
1) Optical axis receiver, 2) Optical axis emitter

BOS01KL, BOS023Y



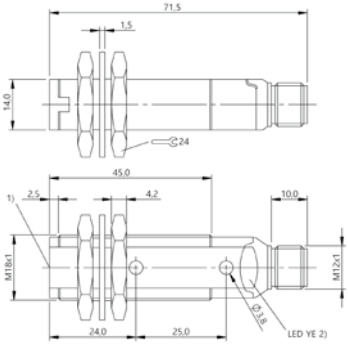
1) Optical axis, 2) Output function, 3) Sn

BOS00LM, BOS00LZ



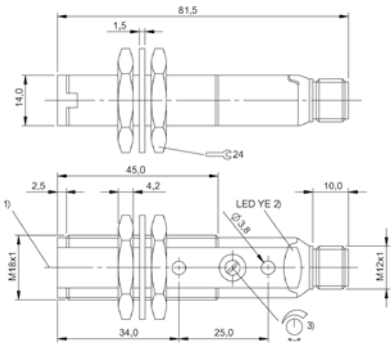
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00LW



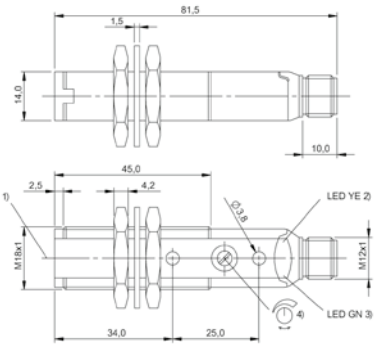
1) Optical axis, 2) Output function

BOS00K5



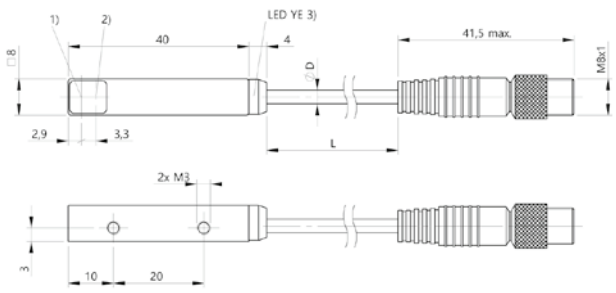
1) Optical axis, 2) Output function, 3) Sn

BOS00JT, BOS00K7



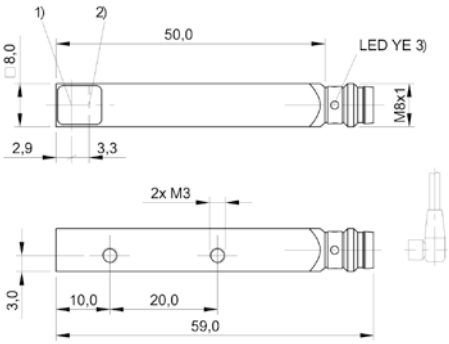
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00K3



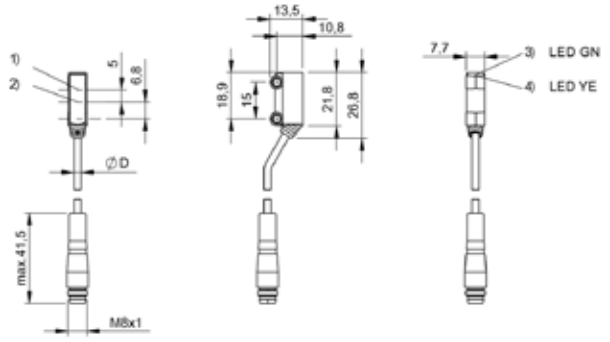
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01MW, BOS01MU, BOS01T9



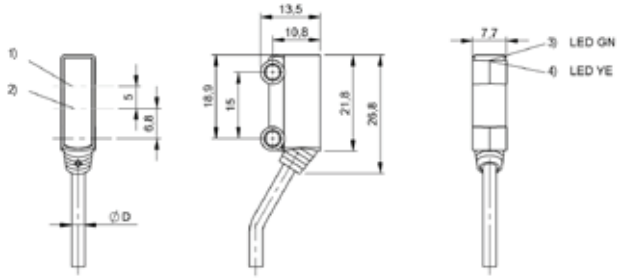
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS01MP, BOS01T8



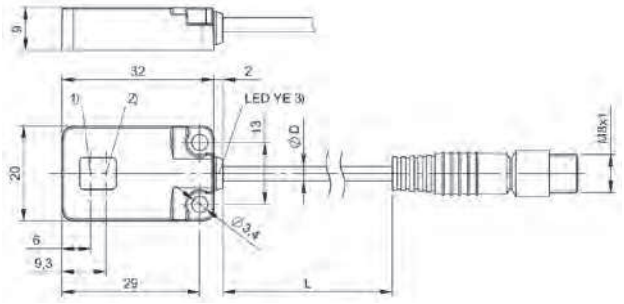
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS020T, BOS020U



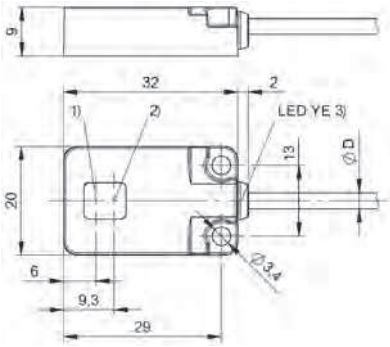
1) Optical axis receiver, 2) Optical axis emitter, 3) Operating voltage, 4) Light reception

BOS020R



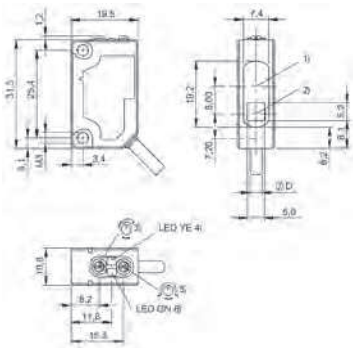
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021L



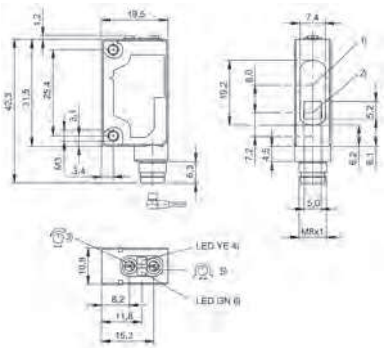
1) Optical axis emitter, 2) Optical axis receiver, 3) Output function

BOS021M



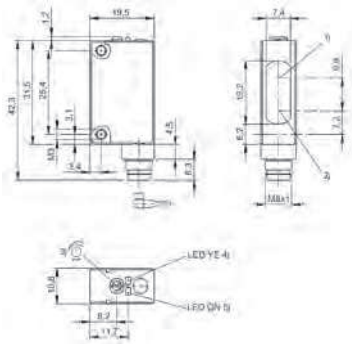
1) Optical axis receiver, 2) Optical axis emitter, 3) Sensitivity, 4) Output function, 5) Light-on/dark-on, 6) stability

BOS01JT



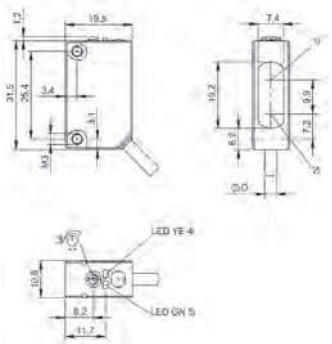
1) Optical axis receiver, 2) Optical axis emitter, 3) Sensitivity, 4) Output function, 5) Light-on/dark-on, 6) stability

BOS01JW



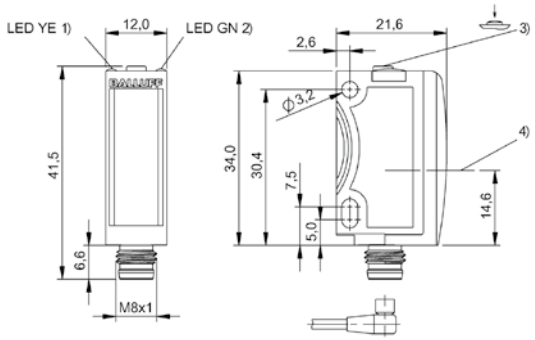
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS0121, BOS015E, BOS012E



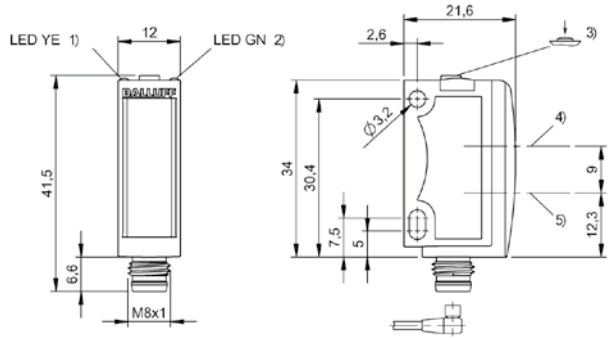
1) Optical axis receiver, 2) Optical axis emitter, 3) Sn, 4) Output function, 5) stability

BOS012C



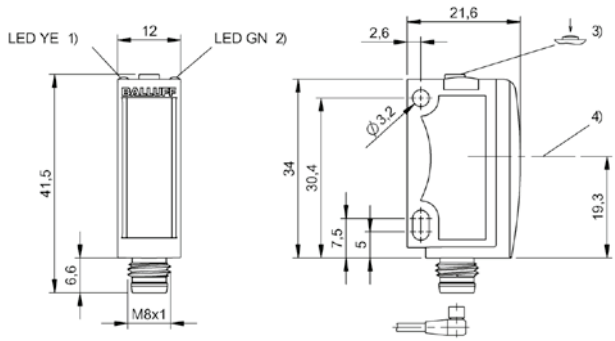
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis

BOS01M4



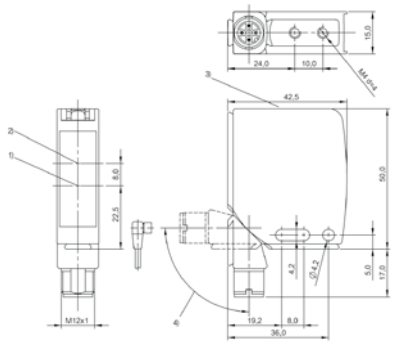
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOS01MH, BOS01MJ



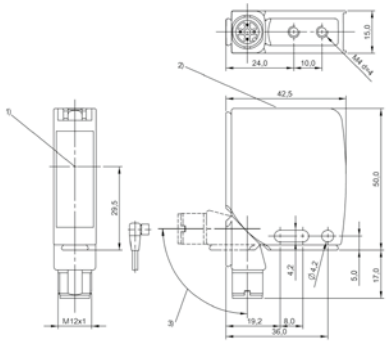
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis

BOS01L8



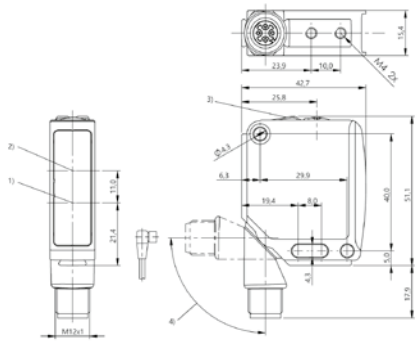
1) Optical axis emitter, 2) Optical axis receiver, 3) Display and control panel, 4) rotatable 270°

BOS00TL, BOS00TR



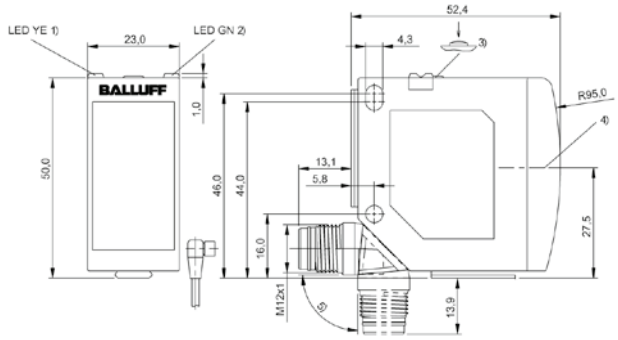
1) Optical axis, 2) Display and control panel, 3) rotatable 270°

BOS00TN, BOS00TU



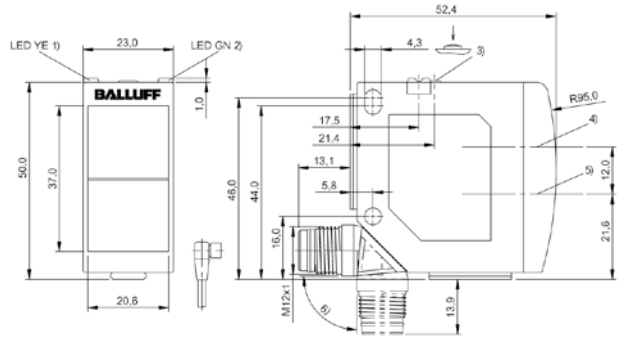
1) Optical axis emitter, 2) Optical axis receiver, 3) Display and control panel, 4) 240° rotatable

BOS027M



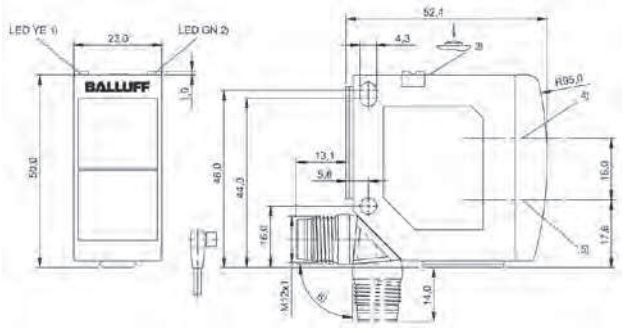
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis, 5) rotatable 270°

BOS01NC



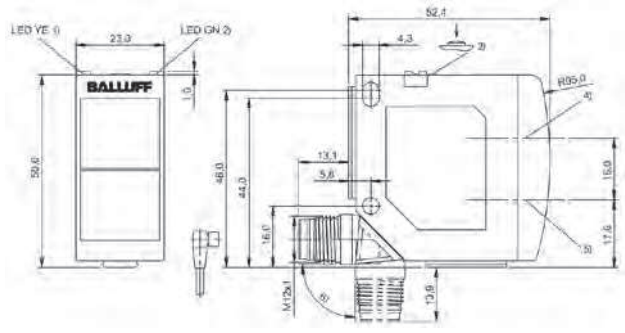
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

BOS016U



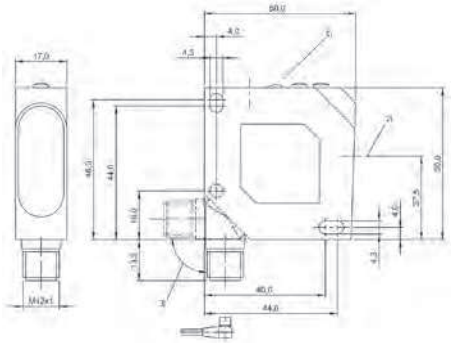
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

BOS01FN



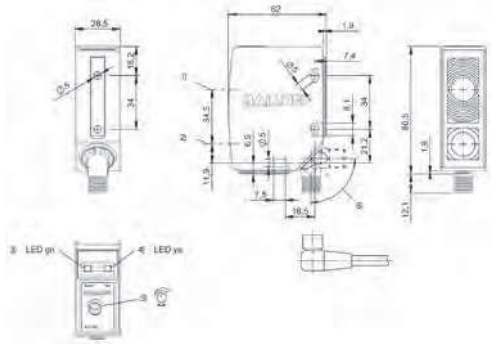
1) Output function/Error, 2) Power/setting mode, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter, 6) rotatable 270°

BOS016P



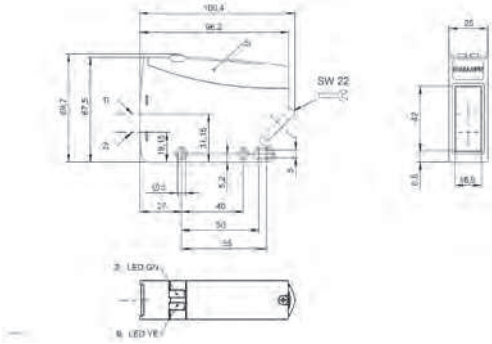
1) Display and control panel, 2) Optical axis, 3) rotatable 270°

BOS008L, BOS008M



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

BOS01CR

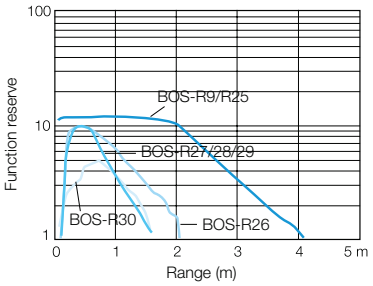


1) Optical axis receiver, 2) Optical axis emitter, 3) Stability, 4) Output function, 5) Removable cover

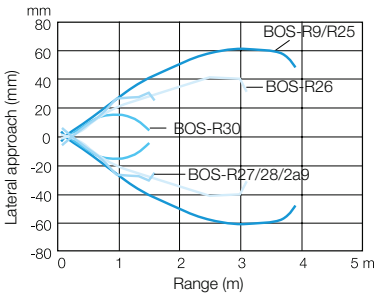
BOS01K3

Retroreflective sensor BOS 5K-_ _-RR10-_ _

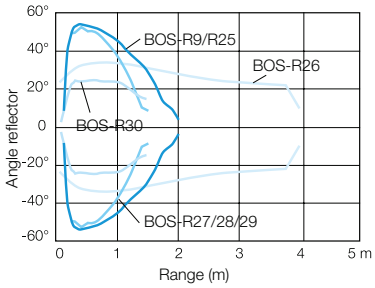
Receiving characteristics



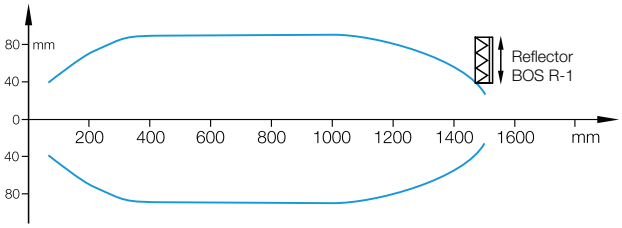
Characteristic response curve



Angular Offset

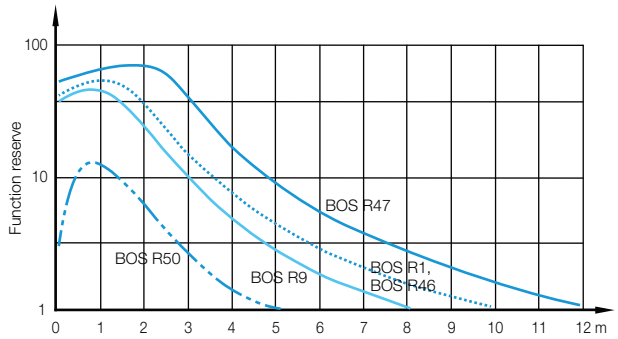


Retroreflective sensor BOS 12M-..-1QA-...

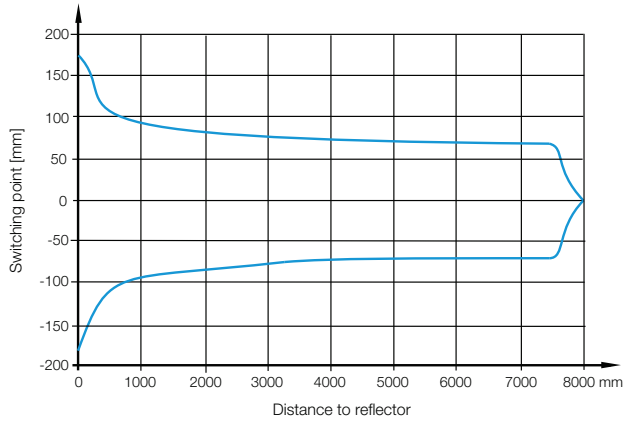


Range measured with side approach with reflector.

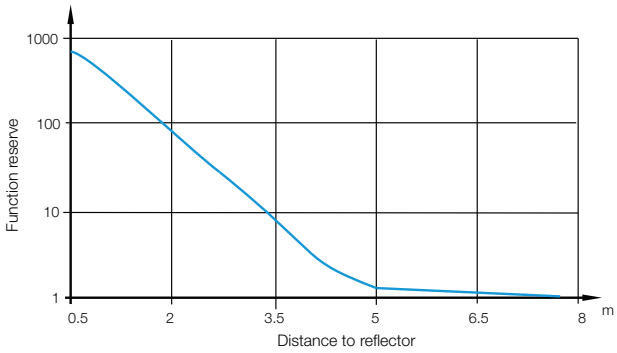
Retroreflective sensor BOS 18M...IR20/IR21-S4



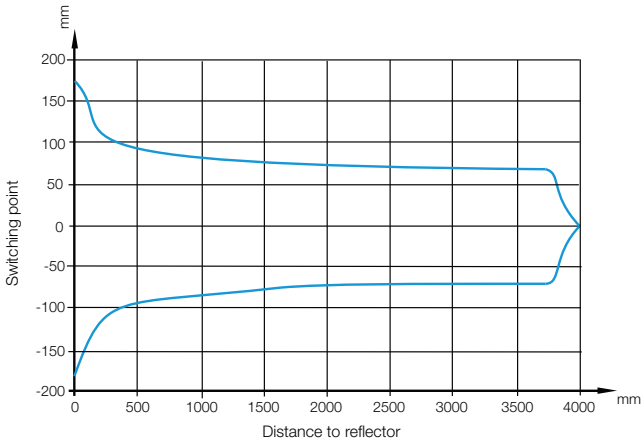
Retroreflective sensor BOS 18M...PR20...
Response curve



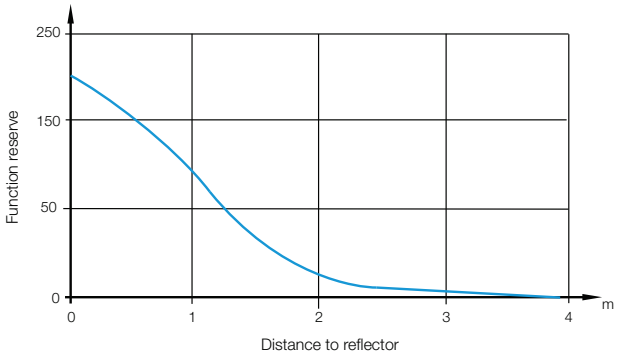
Retroreflective sensor BOS 18M...PR20...
Function reserve



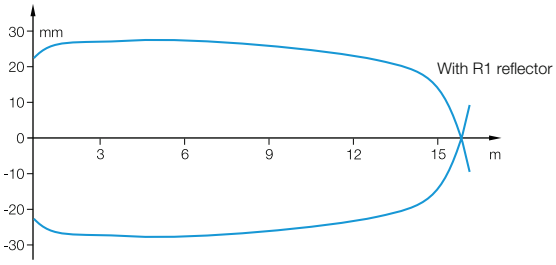
Retroreflective sensor BOS 18M...PR23
response curve



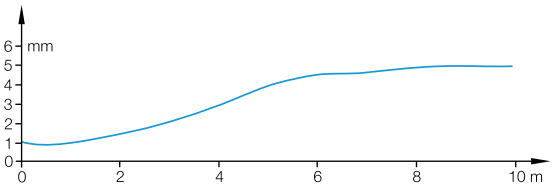
Retroreflective sensor BOS 18M...PR23
Function reserve



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

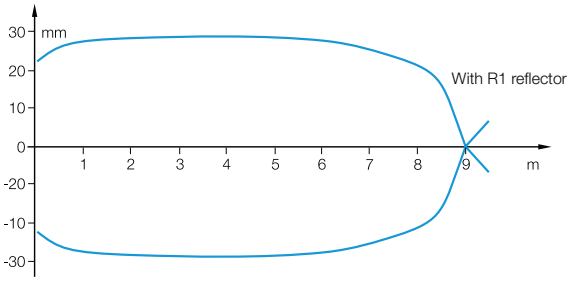


Detection range

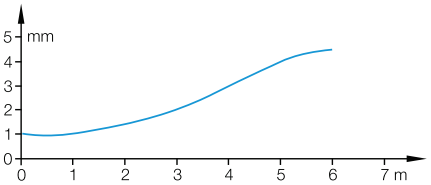


Resolution

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

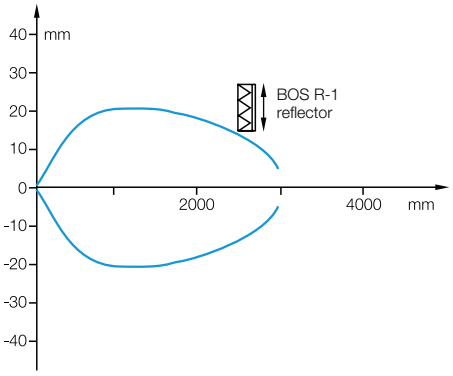


Detection range



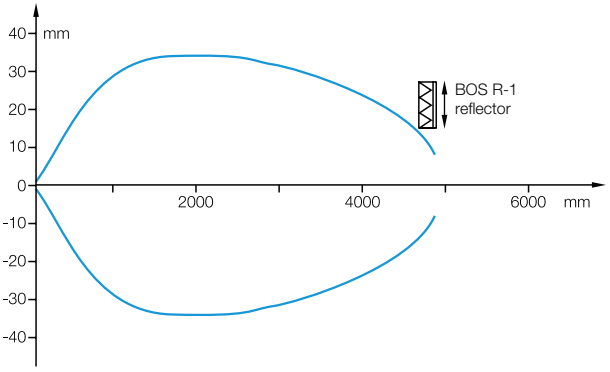
Resolution

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



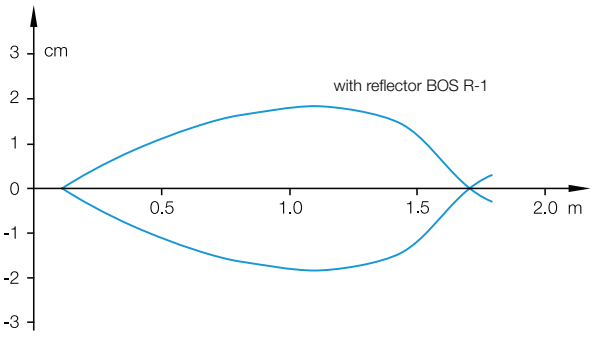
Range measured with side approach with reflector.

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

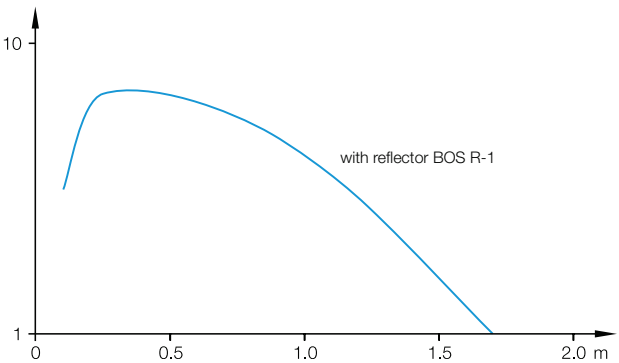


Range measured with side approach with reflector.

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

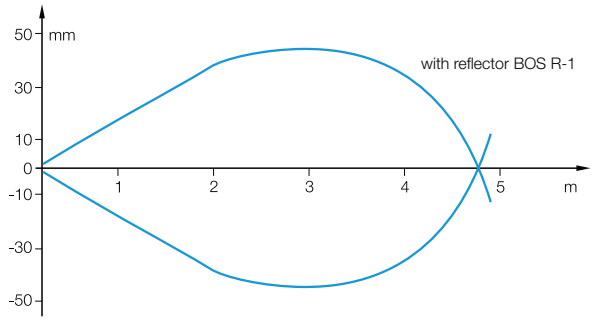


Detection range

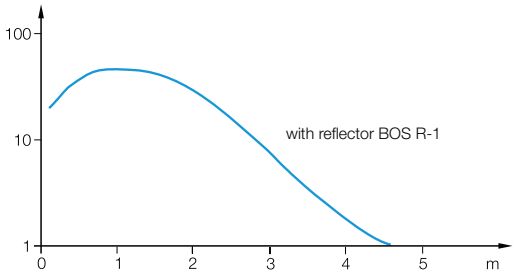


Function reserve

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

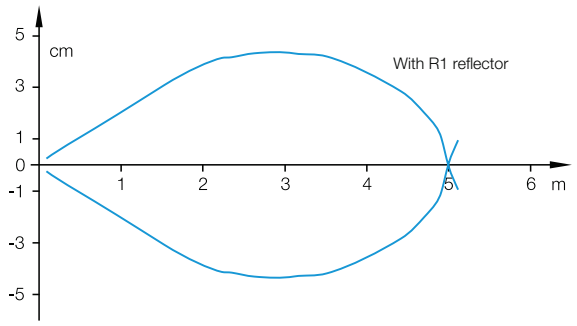


Detection range

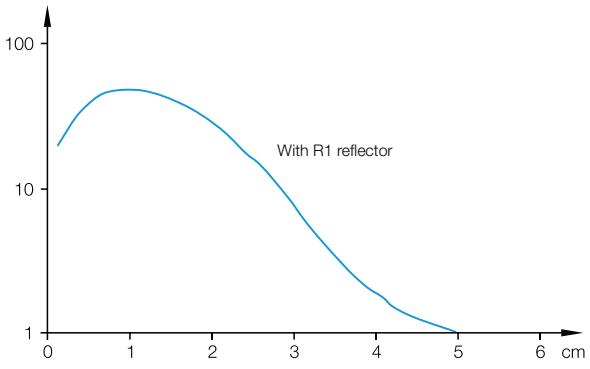


Function reserve

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

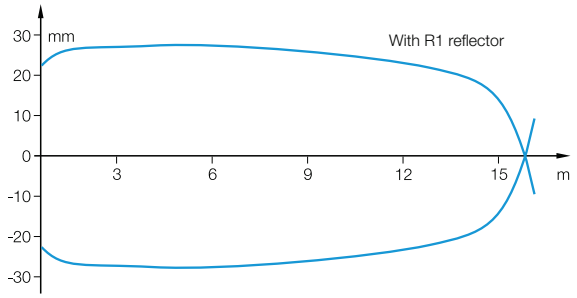


Detection range

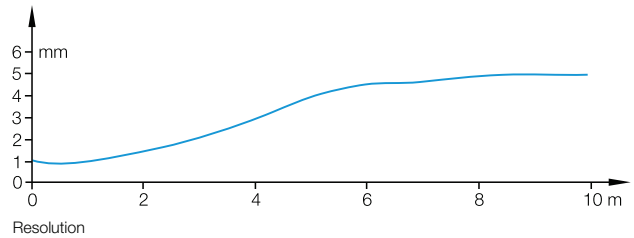


Function reserve

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

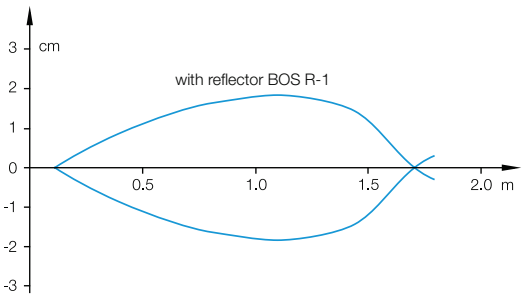


Detection range

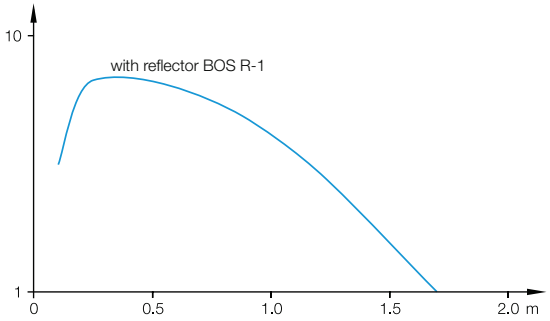


Resolution

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

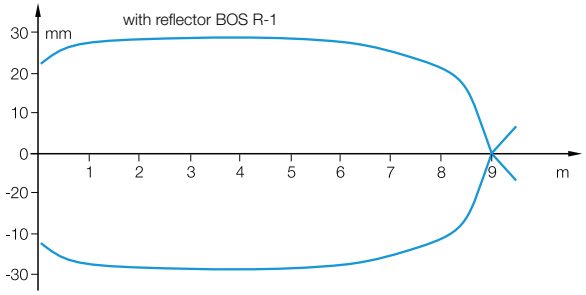


Detection range

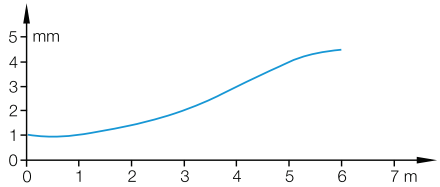


Function reserve

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

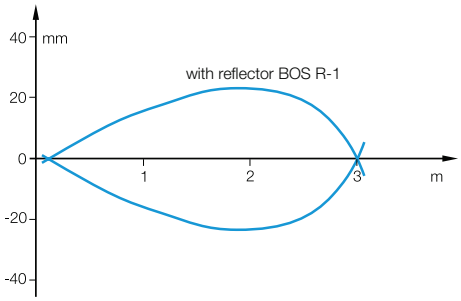


Detection range

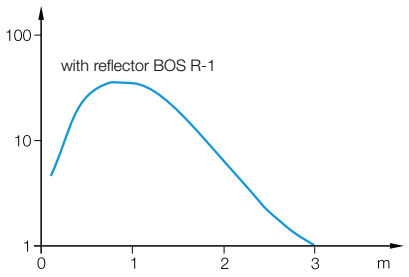


Resolution

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



Detection range



Function reserve



PNP normally open	**BOS01U3** BOS 08E-PS-LE20-S49	**BOS020F** BOS 08E-PS-KE20-S49		
PNP normally closed		**BOS020A** BOS 08E-P0-KE20-S49		
Emitter			**BOS01U8** BOS 08E-X-LS20-S49	
Series	08E	08E	08E	
Dimension	Ø 8 x 40 mm	Ø 8 x 40 mm	Ø 8 x 40 mm	
Interface	PNP normally open (NO)	PNP normally open (NO)	—	
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	—	—	Collimated	
Light type	Laser red light	LED, red light	Laser red light	
Light spot size	—	—	Ø 3.0 mm Light exit	
Range	0...3 m	0...2.2 m	0...3 m	
Connection	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 3-pin	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	
Trademark	—	—	—	
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			BOS01TY BOS 12M-PS-RE10-S4		
		BOS00WF BOS 12M-PA-LE10-S4			
	BOS01Z5 BOS 08E-X-KS20-S49			**BOS00WH** BOS 12M-X-LS11-S4	**BOS00WJ** BOS 12M-X-LS12-S4
	08E	12M	12M	12M	12M
	Ø 8 x 40 mm	Ø 12 x 70 mm	Ø 12 x 60 mm	Ø 12 x 70 mm	Ø 12 x 70 mm
	—	PNP NO PNP NC	PNP normally open (NO)	—	—
	—	—	—	—	—
	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 (Emitter)	Through-beam sensor (Emitter)
	—	—	—	—	—
	Divergent	—	—	Focus, typical at 500 mm	Collimated
	LED, red light	Laser red light	LED, red light	Laser red light	Laser red light
	—	—	—	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit
	0...2.2 m	0...30 m	0...8 m	0...3 m	0...30 m
	Connector, M8x1-Male, 3-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Stainless steel	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
	PMMA	PMMA	PMMA	Glass	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	—	—	Global	—	—
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PNP normally open				
PNP normally open/normally closed				
PNP normally open/normally closed, IO-Link 1.1				
Emitter	**BOS00WL** BOS 12M-XT-LS11-S4	**BOS00WN** BOS 12M-XT-LS12-S4	**BOS01TW** BOS 12M-X-RS10-S4	
Series	12M	12M	12M	
Dimension	Ø 12 x 70 mm	Ø 12 x 70 mm	Ø 12 x 60 mm	
Interface	—	—	—	
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 (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	Focus, typical at 500 mm	Collimated	—	
Light type	Laser red light	Laser red light	LED, red light	
Light spot size	Ø 2.5 mm Light exit	Ø 2.5 mm Light exit	Ø 280 mm at 8 m	
Range	0...3 m	0...30 m	0...8 m	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	
Material sensing surface	Glass	Glass	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	—	Global	
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	BOS01NJ BOS 18M-PA-LE20-S4				
			BOS01J7 BOS 18M-PUV-RE30-S4		
		BOS01UC BOS 18M-PI-RE30-S4			
				BOS01NH BOS 18M-XT-LS20-S4	**BOS01CY** BOS 18M-X-RS30-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
	PNP NO PNP NC	PNP NO/NC IO-Link 1.1	PNP normally open/normally closed (NO/NC)	–	–
	–	–	–	Test (Emitter off)	–
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor
	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)
	–	–	–	–	–
	–	–	–	Collimated	–
	Red light	LED, red light	LED, red light	Laser red light	LED, red light
	–	–	–	Ø 40 mm at 60 m	–
	0...60 m	0...20 m	0...20 m	0...60 m	0...20 m
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
	Glass	Glass	Glass	Glass	Glass
	10...30 VDC	18...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE
	–	–	–	–	–
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PNP normally open		**BOS01KM** BOS 18E-PA-RE20-S4	**BOS023W** BOS 18E-PA-RE30-S4	
PNP normally open/normally closed, IO-Link 1.1				
Emitter	**BOS01UF** BOS 18M-XI-RS30-S4			
Series	18M	18E	18E	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
Interface	IO-Link 1.1	PNP NO PNP NC	PNP NO PNP NC	
Input function	—	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (Emitter)	Through-beam sensor (receiver)	Through-beam sensor (receiver)	
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-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Brass, nickel plated	Stainless steel (1.4404)	Stainless steel (1.4404)	
Material sensing surface	Glass	Glass	PMMA	
Operating voltage Ub	18...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	cULus, CE, EAC, WEEE	FDA compliant, Ecolab, CE, cULus, EAC, WEEE	CE, cULus, Ecolab, EAC, WEEE	
Trademark	—	—	—	
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	BOS023H BOS 18E-PI-RE30-S4				
		BOS01KT BOS 18E-X-RS20-S4	**BOS023U** BOS 18E-X-RS30-S4	**BOS023J** BOS 18E-XI-RS30-S4	
	18E	18E	18E	18E	
	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	Ø 18 x 75 mm	
	PNP NO/NC IO-Link 1.1	–	–	IO-Link 1.1	
	–	–	–	–	
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)	
	–	–	–	–	
	–	Divergent	Divergent	–	
	LED, red light	LED, red light	LED, red light	LED, red light	
	–	–	–	–	
	0...20 m	0...20 m	0...20 m	0...20 m	
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
	Stainless steel (1.4571)	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4571)	
	Glass	Glass	PMMA	Glass	
	18...30 VDC	10...30 VDC	10...30 VDC	18...30 VDC	
	cULus, CE, EAC, WEEE, FDA compliant	FDA compliant, Ecolab, cULus, CE, EAC, WEEE	CE, cULus, Ecolab, EAC, WEEE	cULus, CE, EAC, WEEE	
	–	–	–	–	
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PNP normally open, PNP normally closed				
PNP normally open/normally closed	**BOS00CT** BLE 18KW-PA-1LT-S4-C	**BOS00CW** BLE 18KW-PA-1PP-S4-C		
Emitter			**BOS00EW** BLS 18KW-XX-1P-S4-L	
Series	18KW	18KW	18KW	
Dimension	Ø 18 x 93.5 mm	Ø 18 x 93.5 mm	Ø 18 x 14 mm	
Interface	PNP NO PNP NC	PNP NO PNP NC	—	
Input function	—	—	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	—	—	—	
Light type	Red light	Infrared	Infrared	
Light spot size	—	—	—	
Range	0...50 m	0...15 m	0...15 m	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	PBT	PBT	PBT	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	Global	Global	Global	
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		BOS00CH BLE 18KF-PA-1LT-S4-C	**BOS00CK** BLE 18KF-PA-1PP-S4-C		
	BOS00ET BLS 18KW-XX-1LT-S4-L			**BOS00EP** BLS 18KF-XX-1P-S4-L	**BOS00EM** BLS 18KF-XX-1LT-S4-L
	18KW	18KF	18KF	18KF	18KF
	Ø 18 x 83.5 mm	Ø 18 x 81.5 mm	Ø 18 x 81.5 mm	Ø 18 x 71.5 mm	Ø 18 x 71.5 mm
	–	PNP NO PNP NC	PNP NO PNP NC	–	–
	Test (Emitter off)	–	–	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 (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)
	–	–	–	–	–
	–	–	–	–	–
	Laser red light	Red light	Infrared	Infrared	Laser red light
	–	–	–	–	–
	0...50 m	0...60 m	0...20 m	0...20 m	0...60 m
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 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, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	Global	Global	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			**BOS01YM** BOS Q08M-X-KS21-00,2-S49	
Series	Q08M	Q08M	Q08M	
Dimension	8 x 59 x 8 mm	8 x 44 x 8 mm	8 x 44 x 8 mm	
Interface	PNP normally open (NO)	PNP normally open (NO)	—	
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	
Light type	Red light	Red light	LED, red light	
Light spot size	—	—	—	
Range	0...2.2 m	0...2.2 m	0...2.2 m	
Connection	Connector, M8x1-Male, 3-pin	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PUR	
Housing material	Zinc, Die casting, nickel plated	Zinc, Die casting, nickel plated	Zinc, Die casting, nickel plated	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	
Trademark	—	—	—	
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		BOS0214 BOS R020K-PS-RX11-00,2-S49	**BOS0211** BOS R020K-PS-RX11-02		
	BOS01YK BOS Q08M-X-KS21-S49				
	Q08M	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		
	—	PNP normally open (NO)	PNP normally open (NO)		
	—	—	—		
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor		
	Through-beam sensor (Emitter)	Through-beam sensor	Through-beam sensor		
	—	—	—		
	Divergent	Divergent	Divergent		
	LED, red light	LED, red light	LED, red light		
	—	Ø 23 mm at 500 mm	Ø 23 mm at 500 mm		
	0...2.2 m	0...2 m	0...2 m		
	Connector, M8x1-Male, 3-pin	Cable with connector, M8x1-Male, 3-pin, 0.20 m, PVC	Cable, 2.00 m, PVC		
	Zinc, Die casting, nickel plated	PC PBT	PC PBT		
	PMMA	PMMA	PMMA		
	10...30 VDC	10...30 VDC	10...30 VDC		
	CE, cULus, EAC, WEEE	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC		
	—	—	—		
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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	
Interface	PNP normally open (NO)	PNP normally open (NO)	—	
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-Male, 3-pin, 0.20 m, PUR	Cable, 2.00 m, PUR	Cable with connector, M8x1-Male, 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 Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, Ecolab, EAC, WEEE	cULus, CE, Ecolab, EAC, WEEE	cULus, CE, Ecolab, EAC, WEEE	
Trademark	—	—	—	
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		BOS0126 BOS 5K-PS-IX10-S75	**BOS0125** BOS 5K-PS-IX10-02		
		BOS011R BOS 5K-PO-IX10-S75			
				BOS01JP BOS 5K-PU-LX10-S75	
	BOS021T BOS R01E-X-KS20-02				
	R01E	5K	5K	5K	
	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	
	—	PNP normally open (NO)	PNP normally open (NO)	PNP normally open/normally closed (NO/NC)	
	—	—	—	—	
	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	
	—	—	—	—	
	Divergent	Divergent	Divergent	Divergent	
	LED, red light	Infrared	Infrared	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	
	Cable, 2.00 m, PUR	Connector, M8x1-Male, 4-pin	Cable, 2.00 m, PVC	Connector, M8x1-Male, 4-pin	
	Stainless steel (1.4404)	PC PBT	PC PBT	PC PBT	
	PA	PMMA	PMMA	PMMA	
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
	cULus, CE, Ecolab, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	CE, cULus, CDRH, EAC, WEEE	
	—	Global	Global	Global	
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PNP normally open				
PNP normally open, PNP normally closed		**BOS01LW** BOS 6K-PU-LE10-S75		
PNP normally open/normally closed	**BOS01LU** BOS 6K-PU-LE10-S49			
Emitter			**BOS01M1** BOS 6K-XT-LS10-S49	
Series	6K	6K	6K	
Dimension	12 x 41.5 x 21.6 mm	12 x 41.5 x 21.6 mm	12 x 41 x 21.6 mm	
Interface	PNP normally open/normally closed (NO/NC)	PNP normally open/normally closed (NO/NC)	—	
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 (receiver)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	—	—	Divergent	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	—	—	14 x 14 mm at 20 m	
Range	0...18 m	0...18 m	0...18 m	
Connection	Connector, M8x1-Male, 3-pin	Connector, M8x1-Male, 4-pin	Connector, M8x1-Male, 3-pin	
Housing material	ABS	ABS	ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	
Trademark	—	—	—	
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		BOS00WT BOS 21M-PA-IE10-S4	**BOS00WW** BOS 21M-PA-LE10-S4		
	BOS01M2 BOS 6K-XT-LS10-S75			**BOS00WZ** BOS 21M-XT-IS11-S4	**BOS00Y0** BOS 21M-XT-LS11-S4
	6K	21M	21M	21M	21M
	12 x 41 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
	—	PNP NO PNP NC	PNP NO PNP NC	—	—
	—	—	—	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 (receiver)	Through-beam sensor (Emitter)	Through-beam sensor (Emitter)
	—	—	—	—	—
	Divergent	—	—	—	—
	Laser red light	Infrared	Laser red light	Infrared	Laser red light
	14 x 14 mm at 20 m	—	—	—	—
	0...18 m	0...20 m	0...60 m	0...20 m	0...60 m
	Connector, M8x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	ABS	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum	Zinc, Die casting, Powder coated Aluminum
	PMMA	PMMA	PMMA	PMMA	PMMA
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	cULus, CE, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	—	—	—	—	—
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PNP normally open, PNP normally closed			**BOS01FU** BOS 23K-PA-LE10-S4	
PNP normally open/normally closed			**BOS016L** BOS 23K-PU-LE10-S4	
PNP normally open/normally closed, IO-Link 1.1	**BOS027R** BOS 21M-PAI-RE30-S4	**BOS027P** BOS 21M-XI-RS31-S4		
Emitter				
Series	21M	21M	23K	
Dimension	15.4 x 51.1 x 42.7 mm	15.4 x 51.1 x 42.7 mm	23 x 51 x 52.4 mm	
Interface	IO-Link 1.1 Normally open (NO) Normally closed (NC)	IO-Link 1.1	PNP NO PNP NC	
Input function	—	Test (Emitter off)	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 (receiver)	
Special optical feature	—	—	—	
Beam characteristic	—	—	—	
Light type	Red light	LED, red light	Laser red light	
Light spot size	—	—	—	
Range	0...20 m	0...20 m	0...30 m	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	
Housing material	Zinc, Die casting, Powder coated Die-cast zinc	Zinc, Die casting, Powder coated Die-cast zinc	PC ABS	
Material sensing surface	PMMA	PMMA	PMMA	
Operating voltage Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, WEEE, EAC, Ecolab	CE, cULus, WEEE, EAC, Ecolab	Ecolab, CE, cULus, EAC, WEEE	
Trademark	—	—	—	
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	BOS01FP BOS 23K-PA-RE10-S4				**BOS01CK** BOS 50K-PA-RE10-S4
		BOS016F BOS 23K-PU-RE10-S4			
			BOS016K BOS 23K-XT-LS11-S4	**BOS016E** BOS 23K-XT-RS11-S4	
	23K	23K	23K	23K	50K
	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	23 x 51 x 52.4 mm	28.5 x 80.5 x 62 mm
	PNP NO PNP NC	PNP normally open/normally closed (NO/NC)	—	—	PNP NO PNP NC
	—	Same function as button, Key disable on/off	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 (receiver)
	—	—	—	—	—
	—	—	Divergent	Divergent	—
	LED, red light	LED, red light	Laser red light	LED, red light	LED, red light
	—	—	30 x 30 mm at 25 m	600 x 600 mm at 20 m	—
	0...25 m	0...25 m	0...30 m	0...25 m	0...60 m
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	PC ABS	PC ABS	PC ABS	PC ABS	PC ABS
	PMMA	PMMA	PMMA	PMMA	Glass
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	Ecolab, CE, cULus, EAC, WEEE	CE, Ecolab, cULus, EAC, WEEE	CE, cULus, Ecolab, EAC, WEEE	CE, Ecolab, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	—	—	—	—	—
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Relay normally open/normally closed		**BOS01K4** BOS 64K-AA-IE10-TG		
Emitter	**BOS01CN** BOS 50K-XT-RS10-S4		**BOS01K5** BOS 64K-AA-IS10-TG	
Series	50K	64K	64K	
Dimension	28.5 x 80.5 x 62 mm	25 x 69.7 x 100.4 mm	25 x 69.7 x 100.4 mm	
Interface	—	Relay normally open/normally closed (NO/NC)	—	
Input function	Test (Emitter off)	—	—	
Principle of operation	Photoelectric sensor	Photoelectric sensor	Photoelectric sensor	
Principle of optical operation	Through-beam sensor (Emitter)	Through-beam sensor (receiver)	Through-beam sensor (Emitter)	
Special optical feature	—	—	—	
Beam characteristic	Divergent	—	Divergent	
Light type	LED, red light	Infrared	Infrared	
Light spot size	200 x 200 mm at 10 m	—	—	
Range	0...60 m	0...50 m	0...50 m	
Connection	Connector, M12x1-Male, 4-pin	Screw terminals	Screw terminals	
Housing material	PC ABS	PBT, GF30	PBT, GF30	
Material sensing surface	Glass	PC	PC	
Operating voltage Ub	10...30 VDC	24...60 VDC/24...240 VAC	24...60 VDC/24...240 VAC	
Approval/Conformity	CE, cULus, EAC, WEEE	cULus, CE, EAC, WEEE	cULus, CE, EAC, WEEE	
Trademark	—	—	—	
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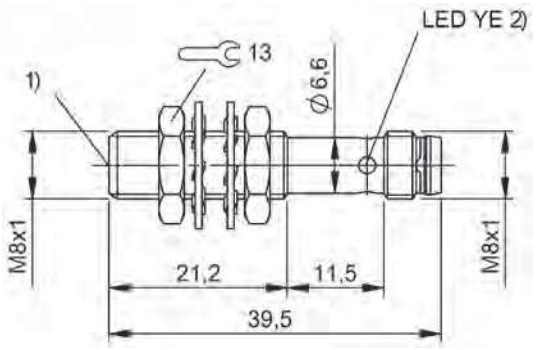
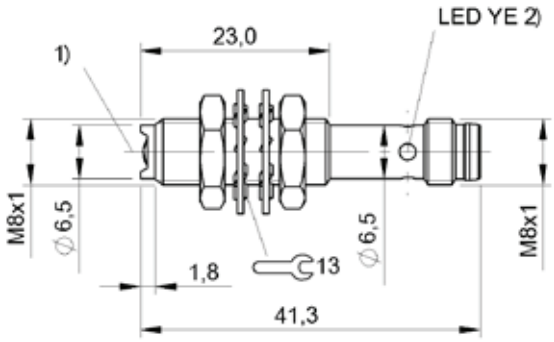


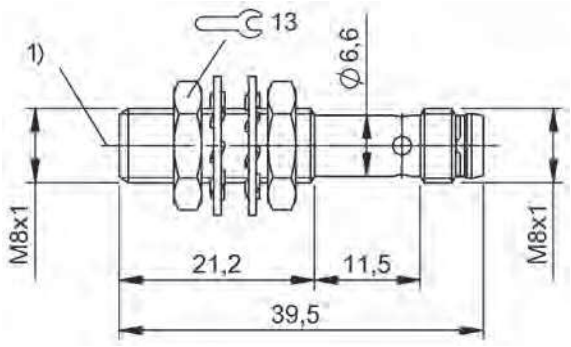
1) Optical axis, 2) Output function

BOS01U3



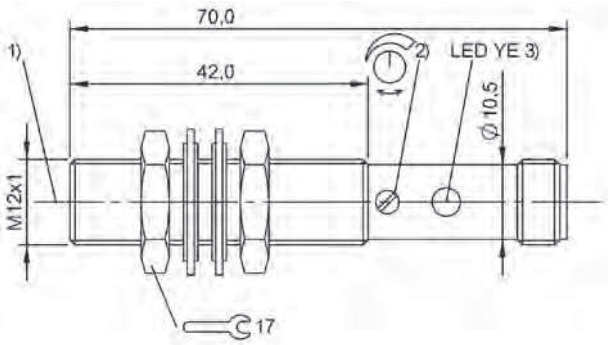
1) Optical axis, 2) Output function

BOS020A, BOS020F, BOS01Z5



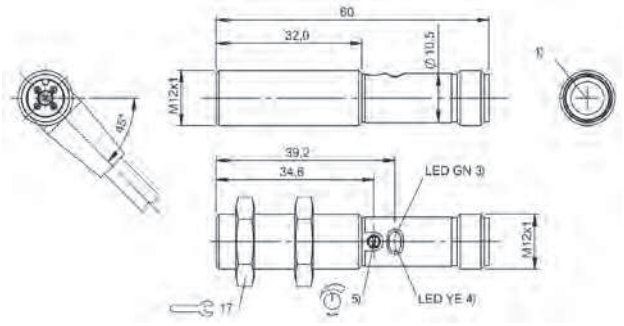
1) Optical axis

BOS01U8



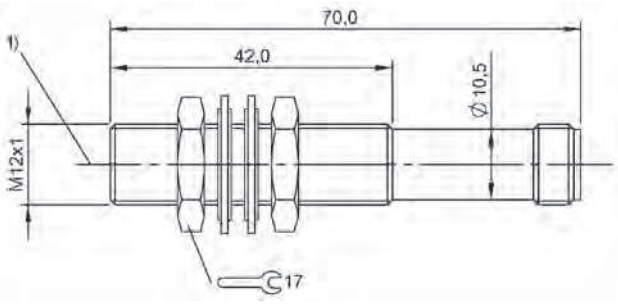
1) Optical axis, 2) Sn, 3) Output function

BOS00WF



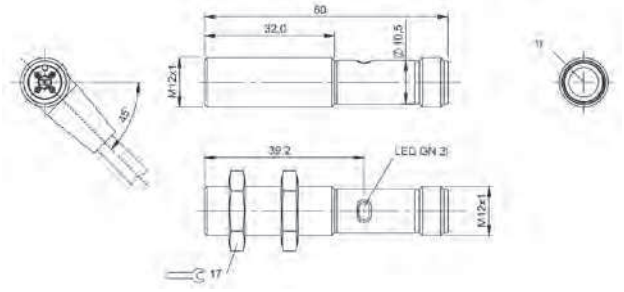
1) Optical axis receiver, 3) Operating voltage, 4) Light reception/limit area, 5) Sn

BOS01TY



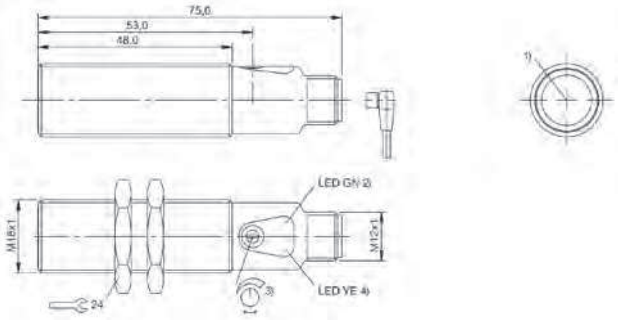
1) Optical axis

BOS00WH, BOS00WJ, BOS00WL, BOS00WN



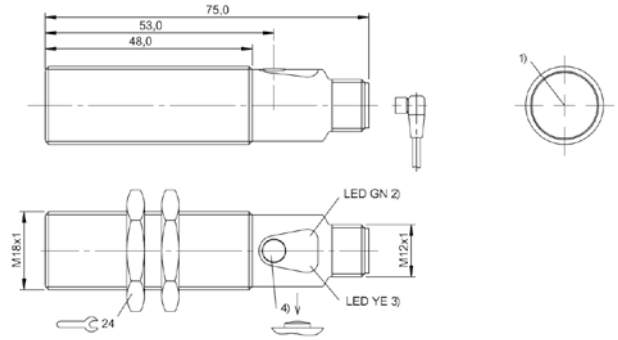
1) Optical axis emitter, 3) Operating voltage

BOS01TW



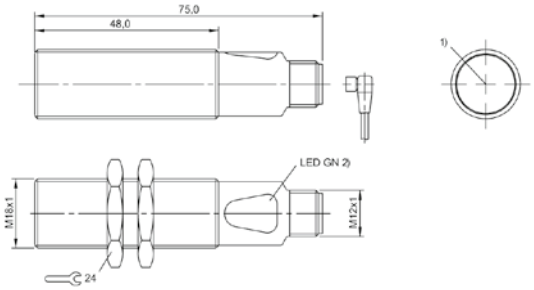
1) Optical axis, 2) Operating voltage/Error, 3) Sn, 4) Light reception/limit area

BOS01NJ



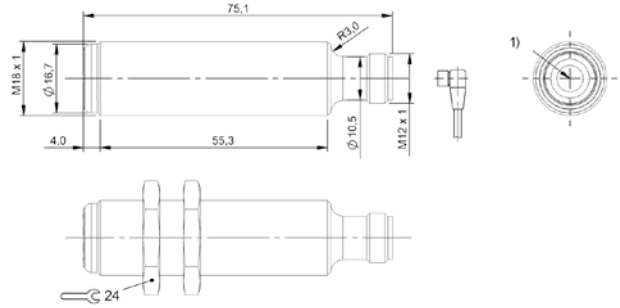
1) Optical axis, 2) Power/short-circuit, 3) Light reception/limit area, 4) Sn

BOS01UC, BOS01J7



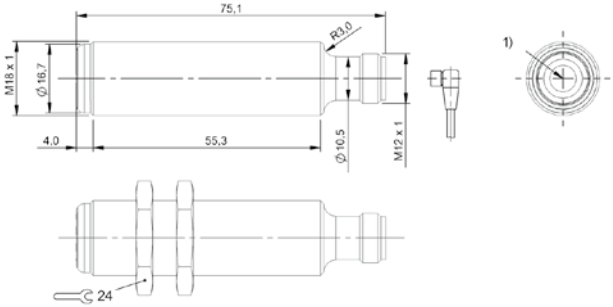
1) Optical axis, 2) Operating voltage

BOS01NH, BOS01CY, BOS01UF



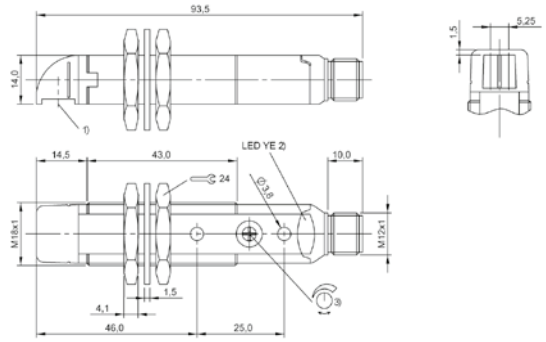
1) Optical axis receiver

BOS01KM, BOS023W, BOS023H



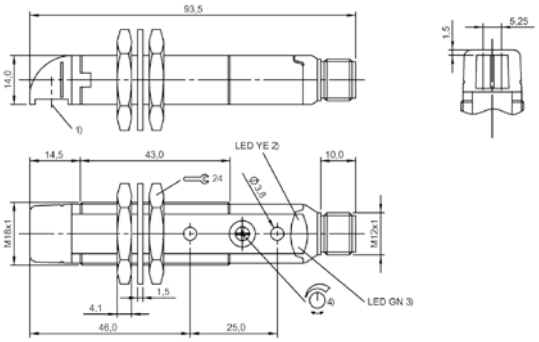
1) Optical axis emitter

BOS01KT, BOS023U, BOS023J



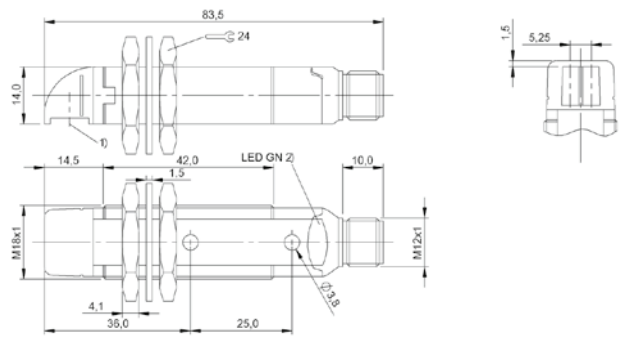
1) Output function, 1) Optical axis, 3) Sn

BOS00CT



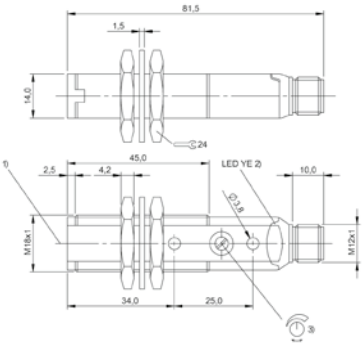
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00CW



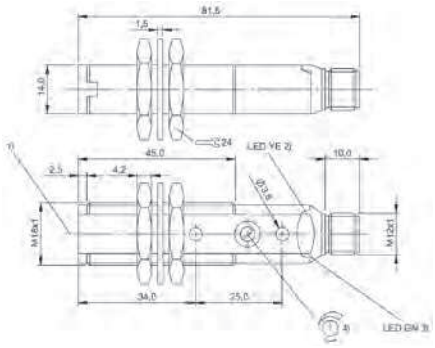
1) Optical axis, 2) Operating voltage

BOS00EW, BOS00ET



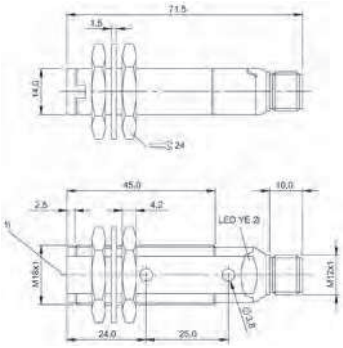
1) Optical axis, 2) Output function, 3) Sn

BOS00CH



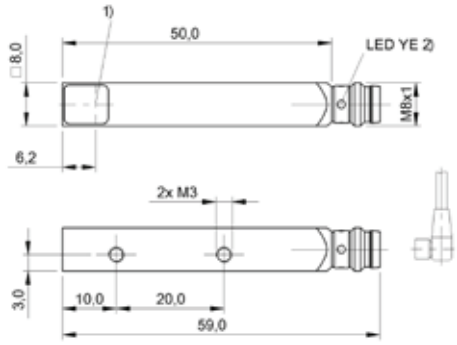
1) Optical axis, 2) Output function, 3) Stability, 4) Sn

BOS00CK



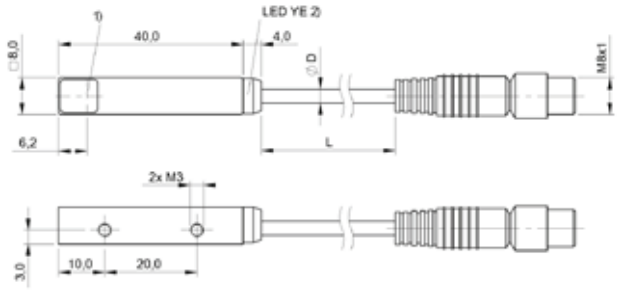
1) Optical axis, 2) Operating voltage

BOS00EP, BOS00EM



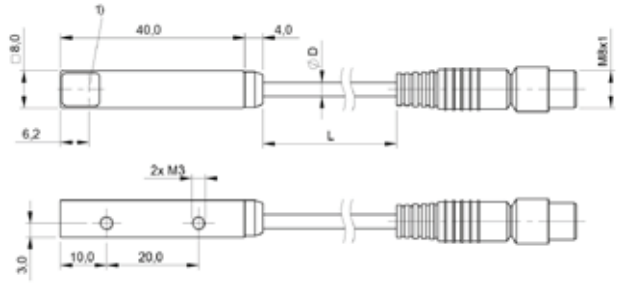
1) Optical axis receiver, 2) Output function

BOS01Y7, BOS01Y4



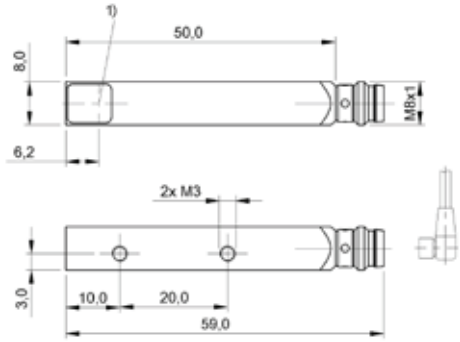
1) Optical axis receiver, 2) Output function

BOS01Y6



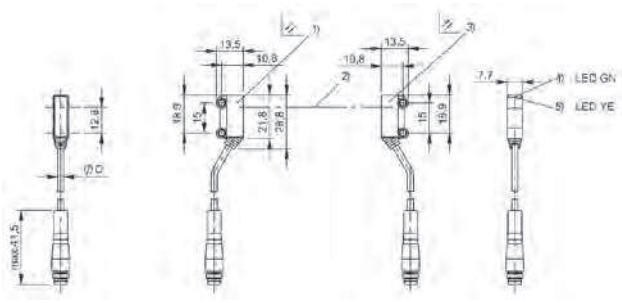
1) Optical axis emitter

BOS01YM



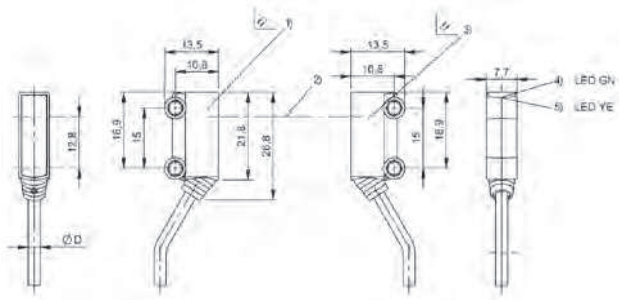
1) Optical axis emitter

BOS01YK



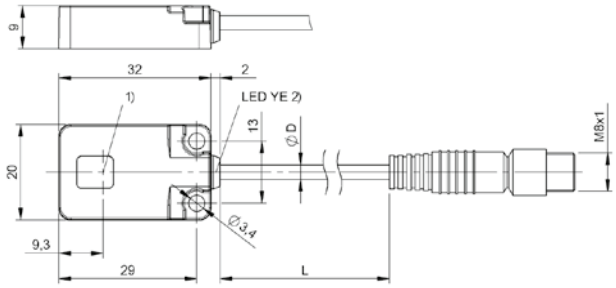
1) Emitter, 2) Optical axis, 3) Receiver, 4) Operating voltage, 5) Output function

BOS0214



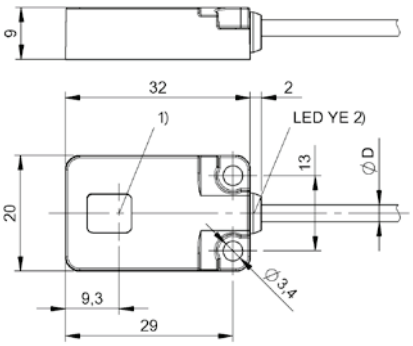
1) Emitter, 2) Optical axis, 3) Receiver, 4) Operating voltage, 5) Output function

BOS0211



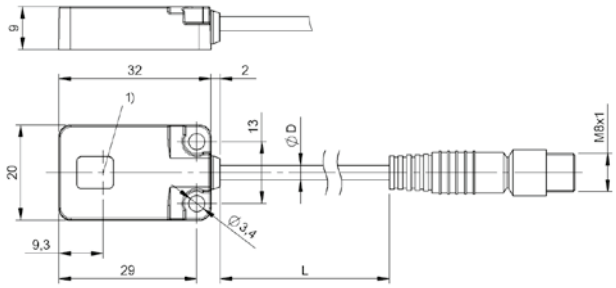
1) Optical axis receiver, 2) Output function

BOS021N



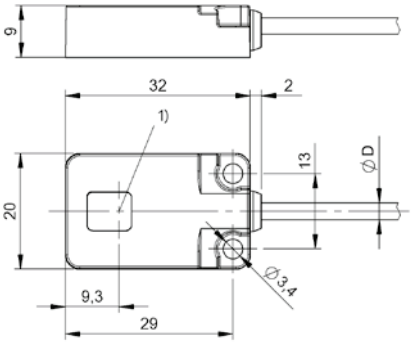
1) Optical axis receiver, 2) Output function

BOS021P



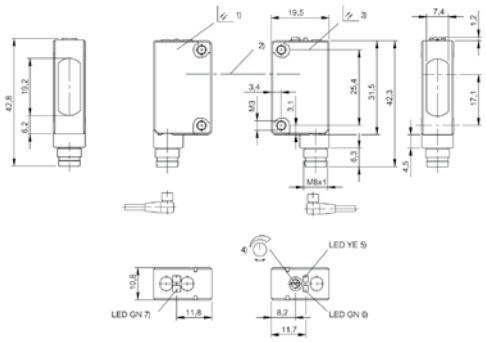
1) Optical axis emitter

BOS021R



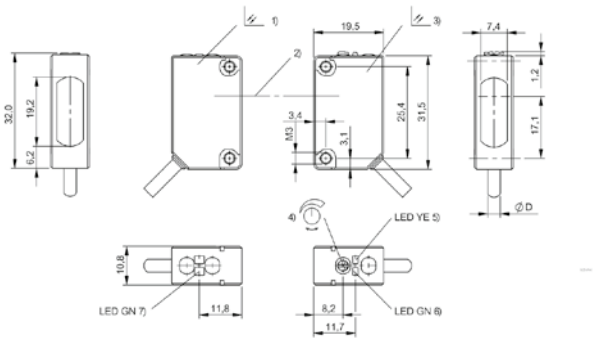
1) Optical axis emitter

BOS021T



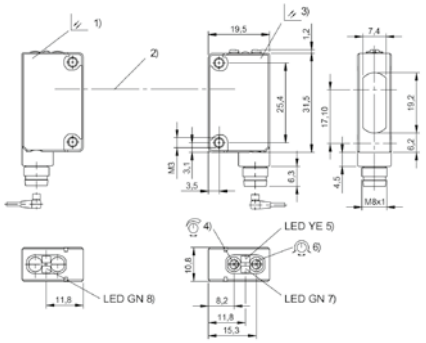
1) Emitter, 2) Optical axis, 3) Receiver, 4) Sensitivity, 5) Output function, 6) stability, 7) Operating voltage

BOS011R, BOS0126



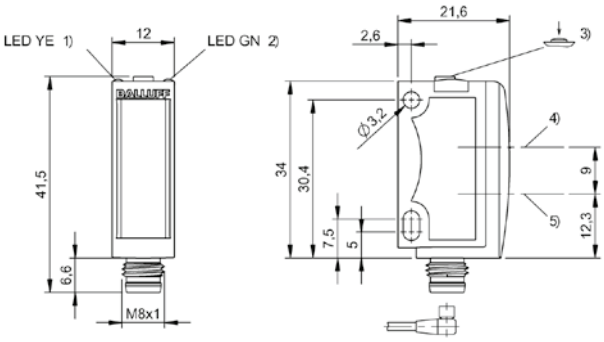
1) Emitter, 2) Optical axis, 3) Receiver, 4) Sensitivity, 5) Output function, 6) stability, 7) Operating voltage

BOS0125



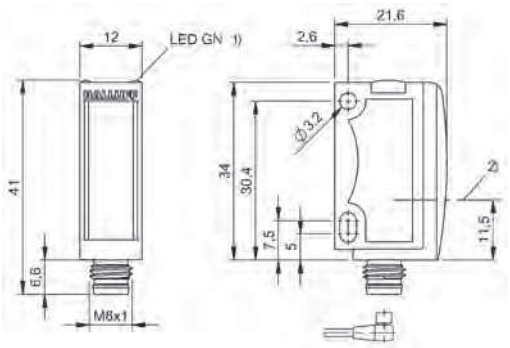
1) Emitter, 2) Optical axis, 3) Receiver, 4) Sensitivity, 5) Output function, 6) Light-on/dark-on, 7) stability, 8) Operating voltage

BOS01JP



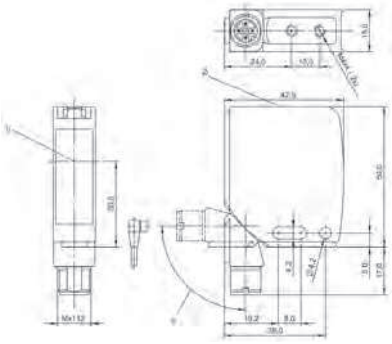
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis

BOS01LU, BOS01LW



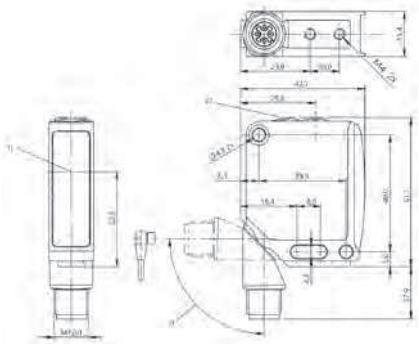
1) Operating voltage, 2) Optical axis

BOS01M1, BOS01M2



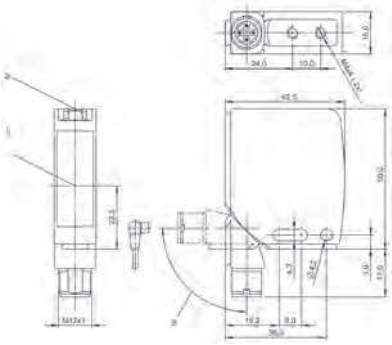
1) Optical axis, 2) Display and control panel, 3) rotatable 270°

BOS00WT, BOS00WW



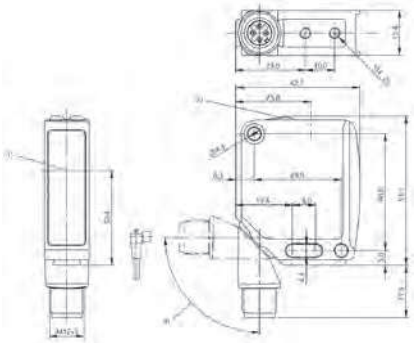
1) Optical axis receiver, 2) Display and control panel, 3) 240° rotatable

BOS027R



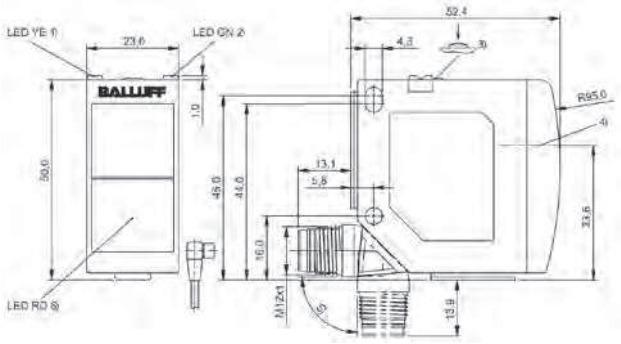
1) Optical axis, 2) Operating voltage, 3) rotatable 270°

BOS00WZ, BOS00Y0



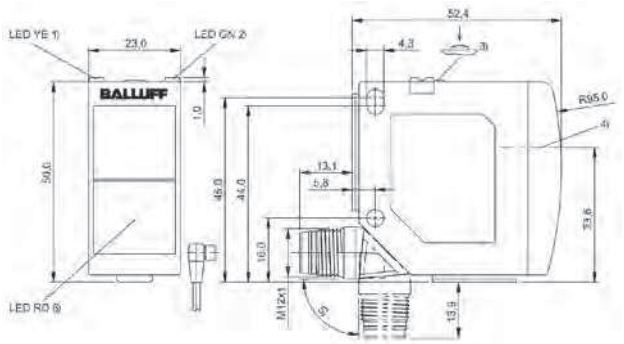
1) Optical axis emitter, 2) Display and control panel, 3) 240° rotatable

BOS027P



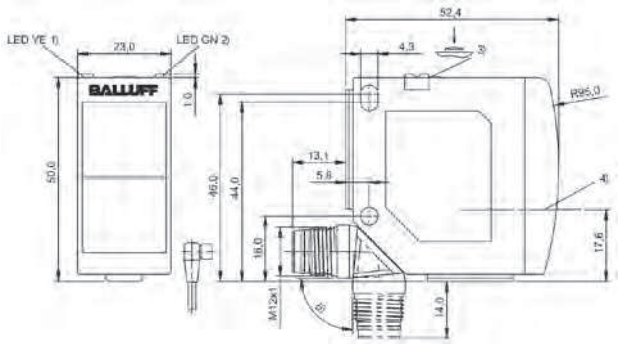
1) Output function/Error, 2) Power/setting mode, 3) Sn, light/dark, 4) Optical axis, 5) rotatable 270°, 6) Alignment good/limit area

BOS01FU, BOS016L, BOS016F



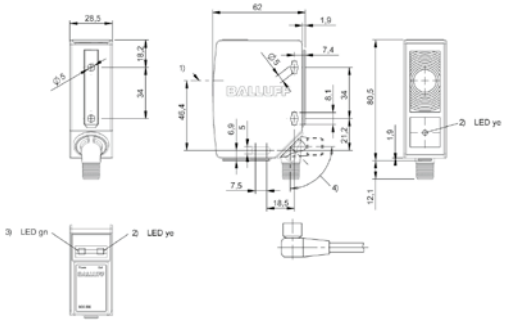
1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis, 5) rotatable 270°, 6) Alignment good/limit area

BOS01FP



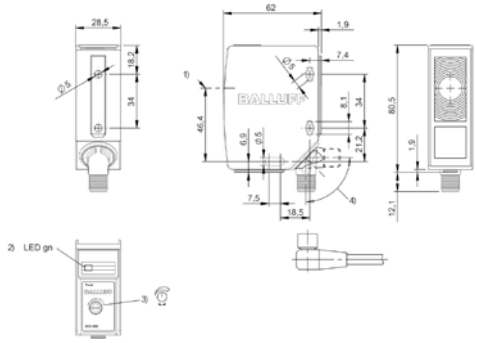
1) Alignment mode active, 2) Power/alignment mode active, 3) Alignment mode on/off, 4) Optical axis, 5) rotatable 270°

BOS016K, BOS016E



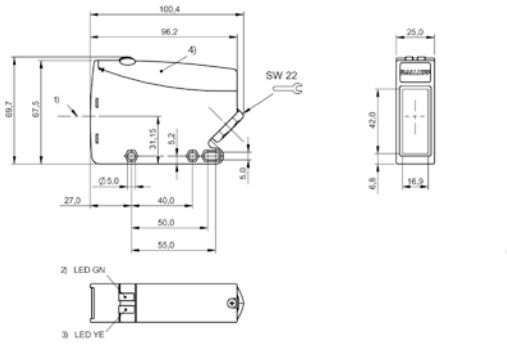
1) Optical axis receiver, 2) Light reception, 3) Operating voltage, 4) rotatable 270°

BOS01CK



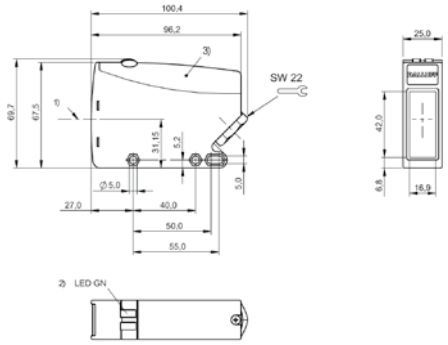
1) Optical axis emitter, 2) Operating voltage, 3) Sn, 4) rotatable 270°

BOS01CN



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

BOS01K4

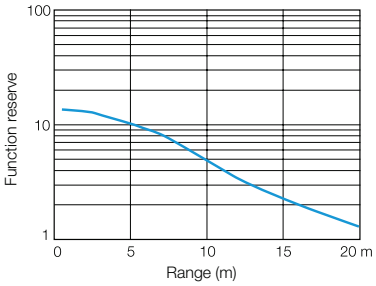


1) Optical axis, 2) Operating voltage, 3) Removable cover

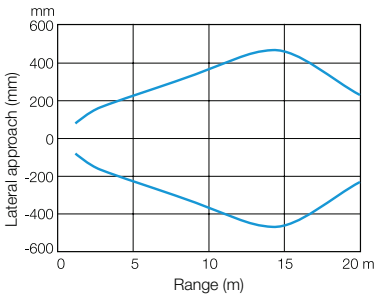
BOS01K5

Through-beam sensor BOS 5K-_ _-IX10-_ _

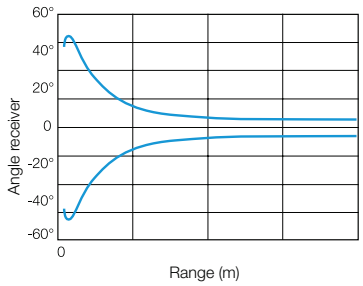
Receiving characteristics



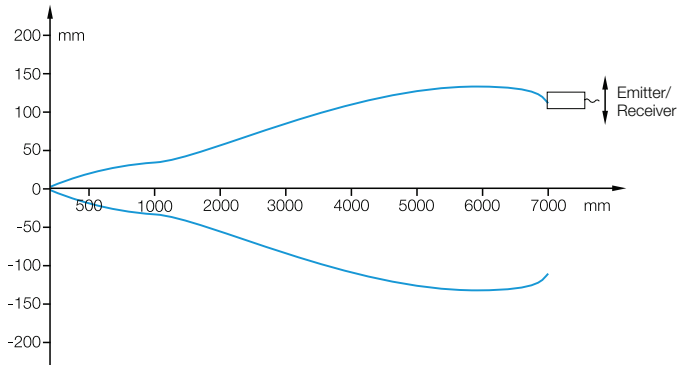
Characteristic response curve



Angular Offset

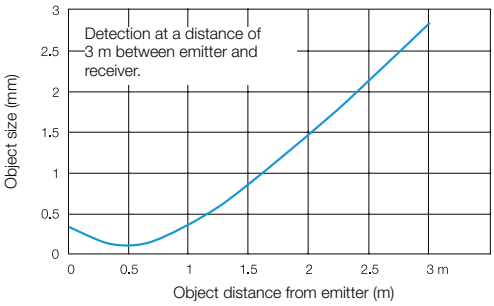


Through-beam sensor BLE/BLS 12M-...

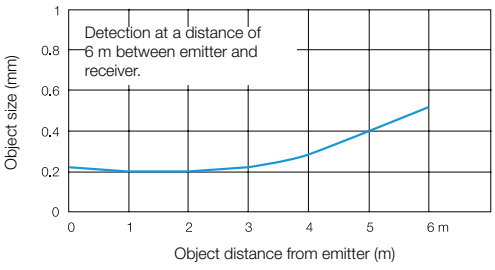


The maximum possible offset between the emitter and receiver is measured for the through-beam sensor.

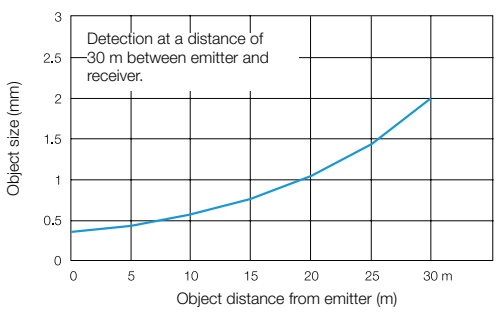
Through-beam sensor small parts detection BOS 12M-XT-LS11-..



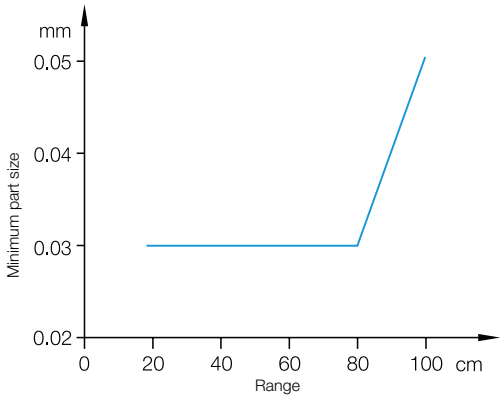
Through-beam sensor small parts detection BOS 12M-XT-LS12-..

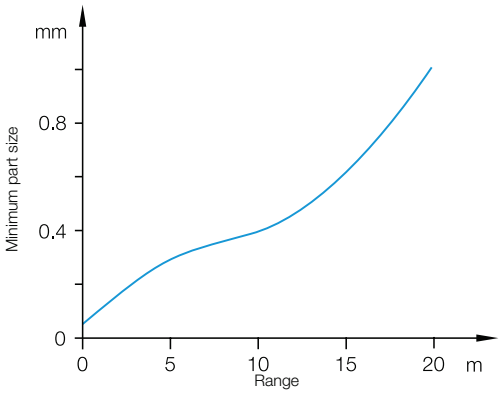


Through-beam sensor small parts detection BOS 12M-XT-LS12-..



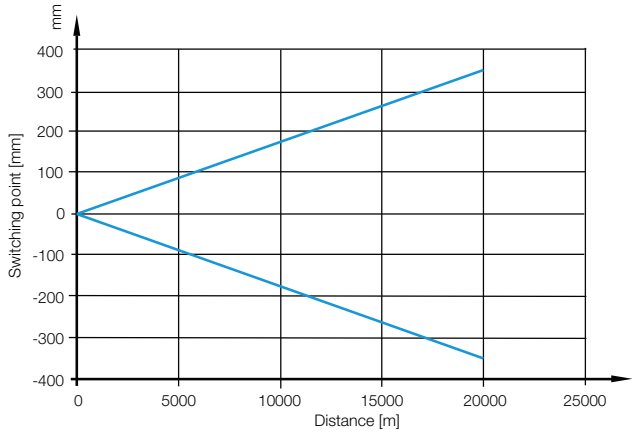
Accuracy diagram for BOS 18M laser through-beam sensor
Smallest detectable part size as a function of range.



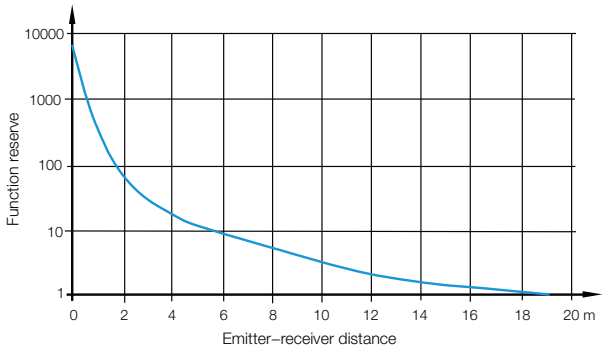


Light spot perpendicular to transport direction of the object.

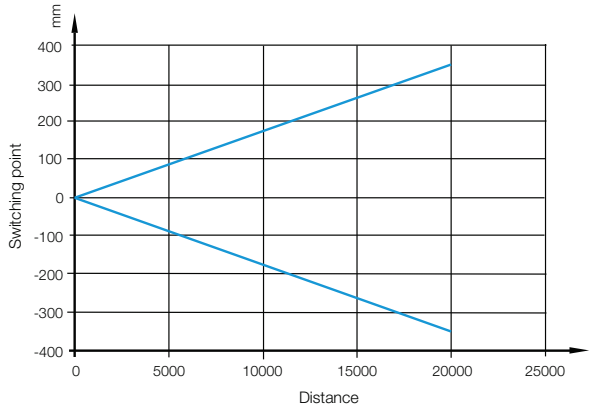
Through-beam sensor BOS 18M...RE/RS20
Response curve



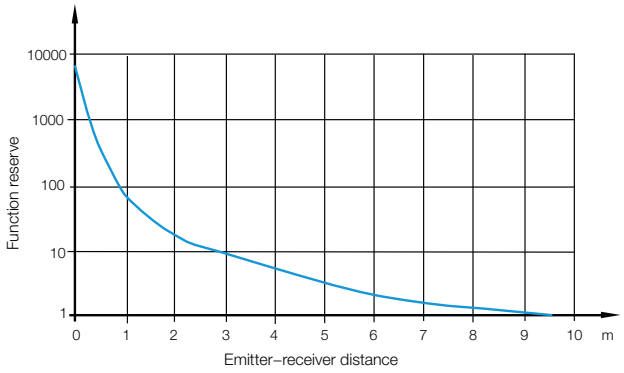
Through-beam sensor BOS 18M...RE/RS20
Function reserve



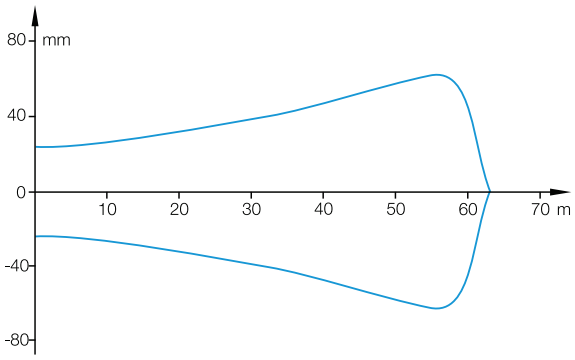
Through-beam sensor BOS 18M...RE/RS23
response curve



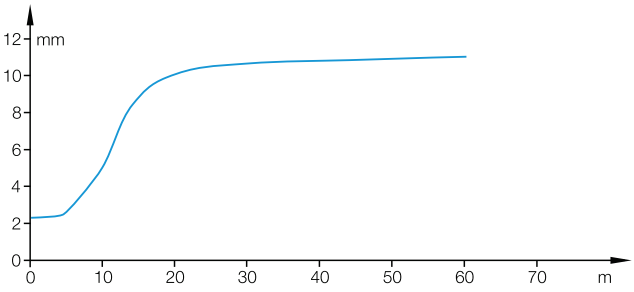
Through-beam sensor BOS 18M...RE/RS23
Function reserve



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

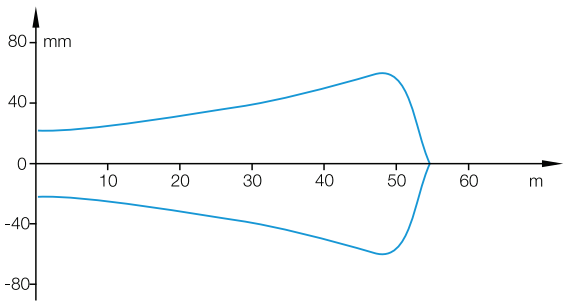


Detection range

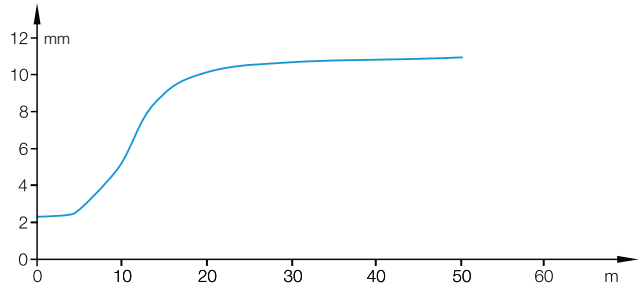


Resolution

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

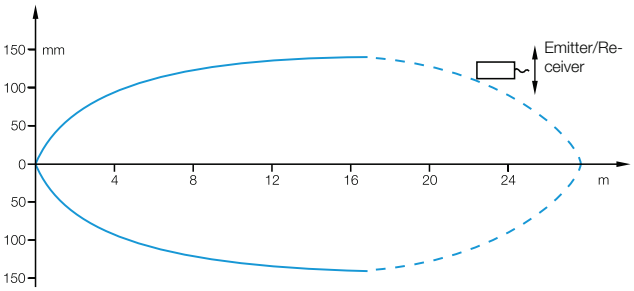


Detection range



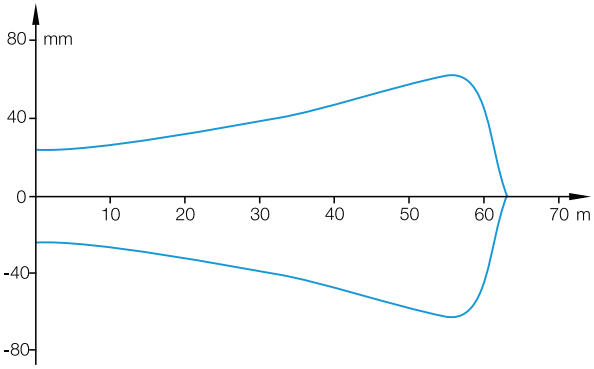
Resolution

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

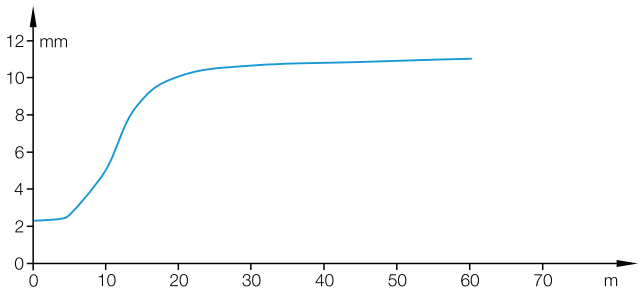


For a through-beam sensor, the maximum possible offset between the emitter and receiver is measured.

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

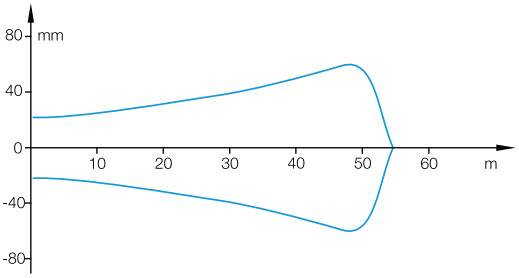


Detection range

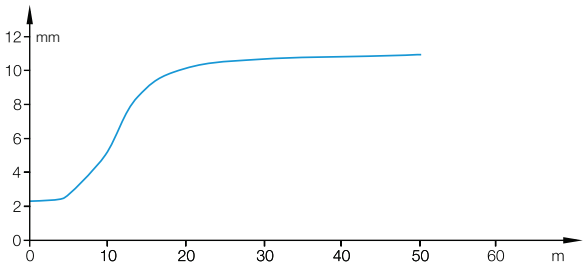


Resolution

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

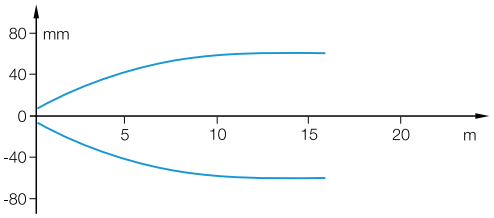


Detection range

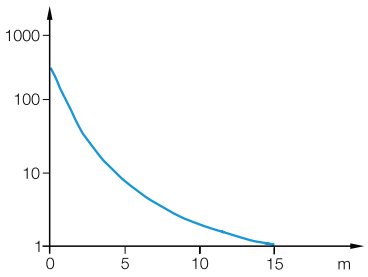


Resolution

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



Detection range



Function reserve



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 Ub	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	Fork sensor	Fork sensor	Fork sensor	Fork sensor
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam 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	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, 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 Ub	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 Ub	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	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	Divergent	Divergent	Divergent
	Red light	Red light	Red light	Red light	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	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
	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC	cULus, CE, EAC	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 Ub	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	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	Divergent	Divergent	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light	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	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
	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 Ub	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	Fork sensor	Fork sensor	Fork sensor	Fork sensor
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor
	Light array	Light array	Light array	Light array	Light array
	Divergent	Divergent	Divergent	Divergent	Divergent
	LED, red light	LED, red light	LED, red light	LED, red light	LED, red light
	3 x 28 mm Light exit	3 x 28 mm Light exit	3 x 28 mm Light exit	3 x 28 mm Light exit	3 x 28 mm Light exit
	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
	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	PMMA	PMMA	PMMA	PMMA	PMMA
	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
	CE	CE	CE	CE	CE
	—	—	—	—	—
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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 Ub	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	
	–	–	–	–	
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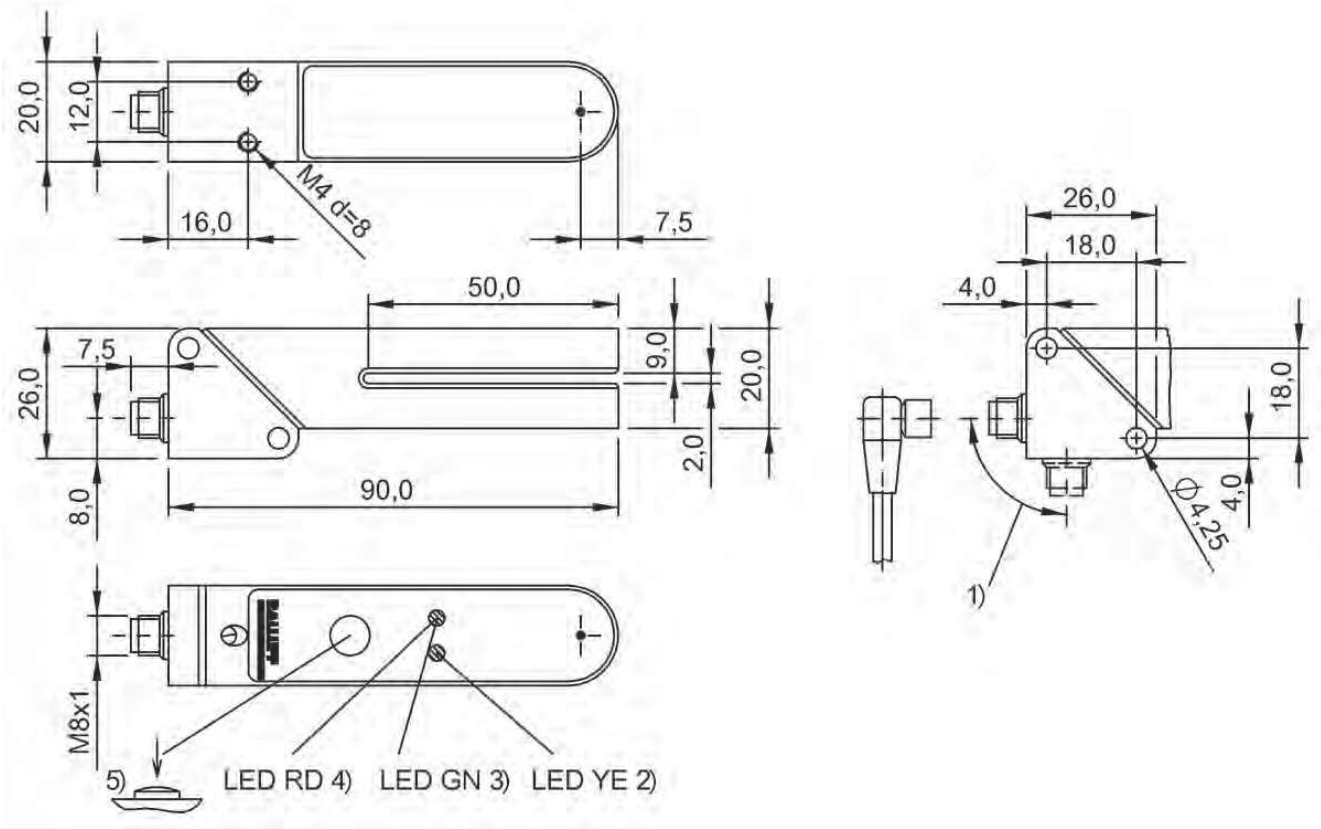
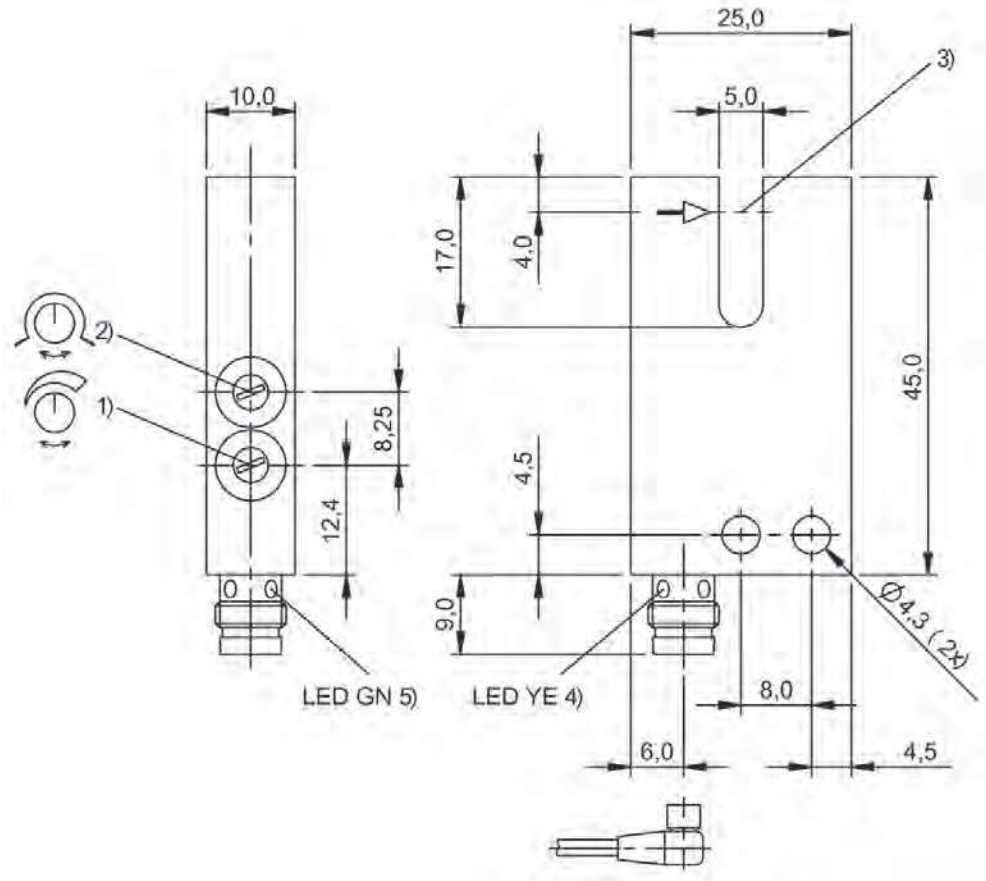


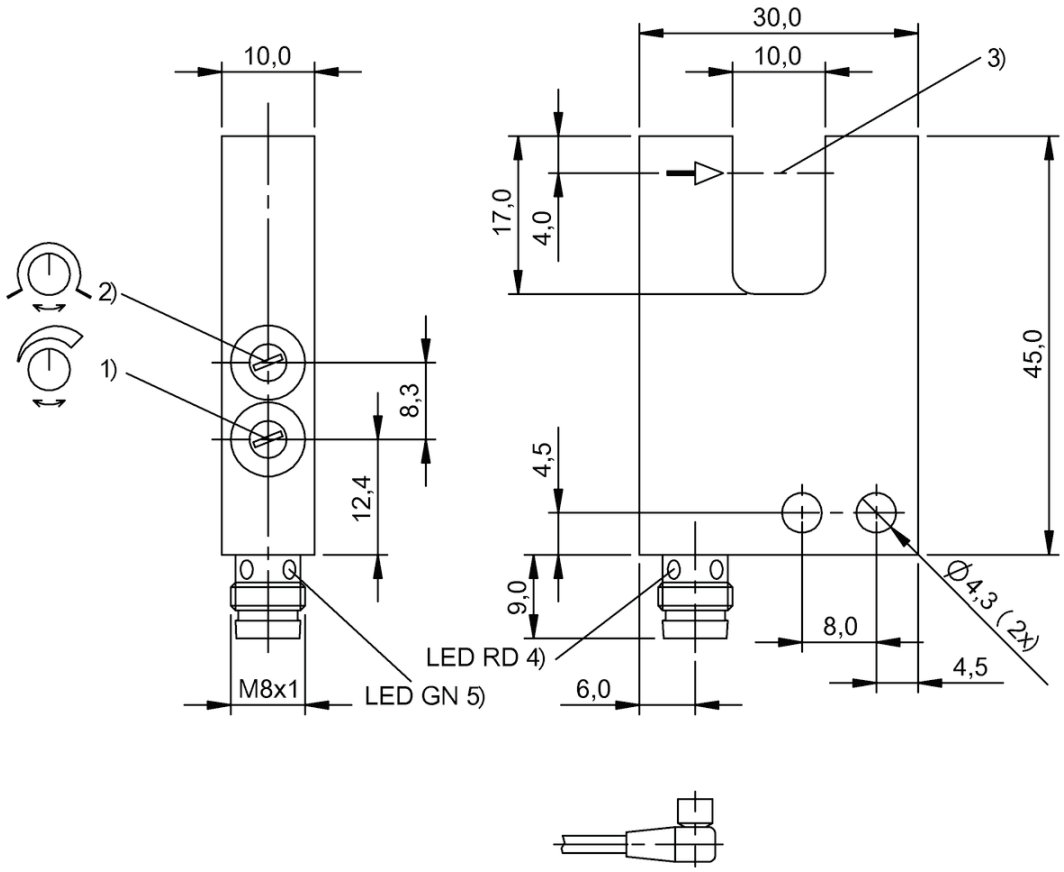
1) rotatable 180°, 2) Output function, 3) stability/error, 4) Fail/short circuit/error, 5) Sensitivity, light/dark

BGL002L, BGL002M



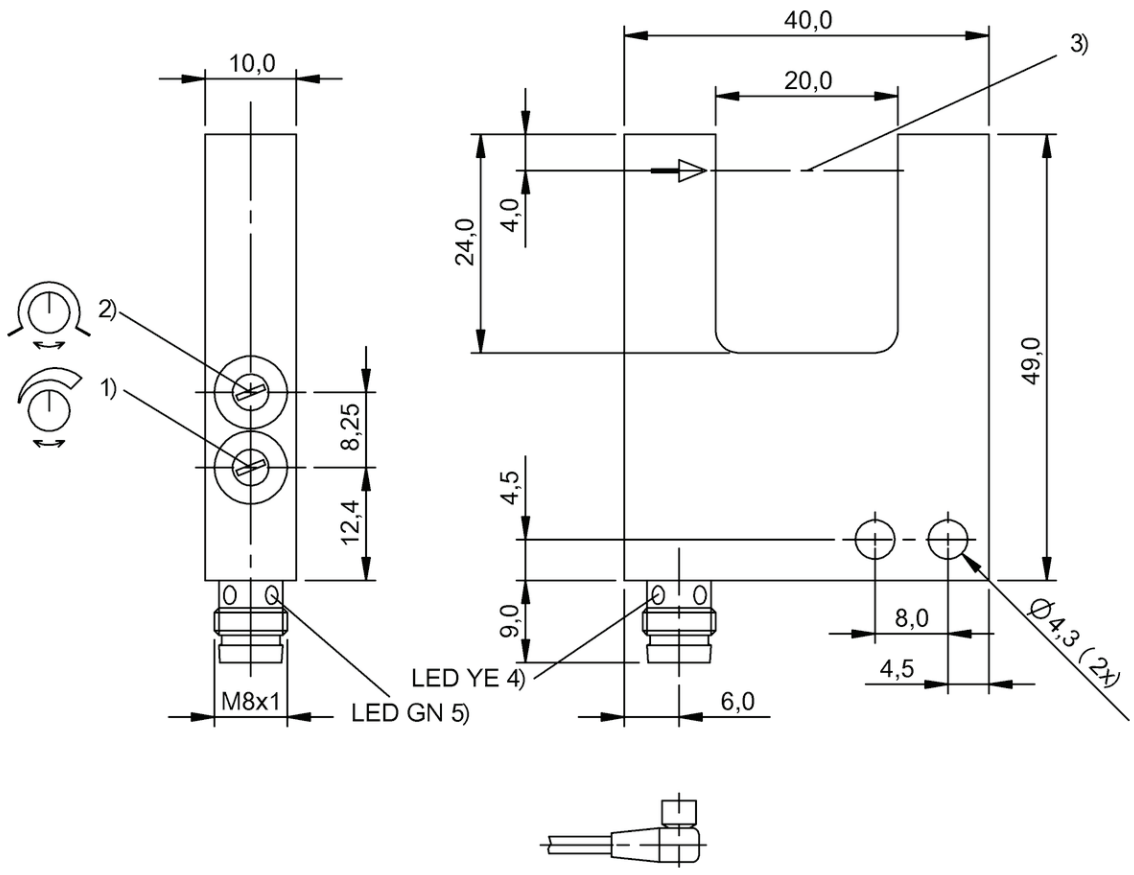
1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function, 5) Operating voltage

BGL0021



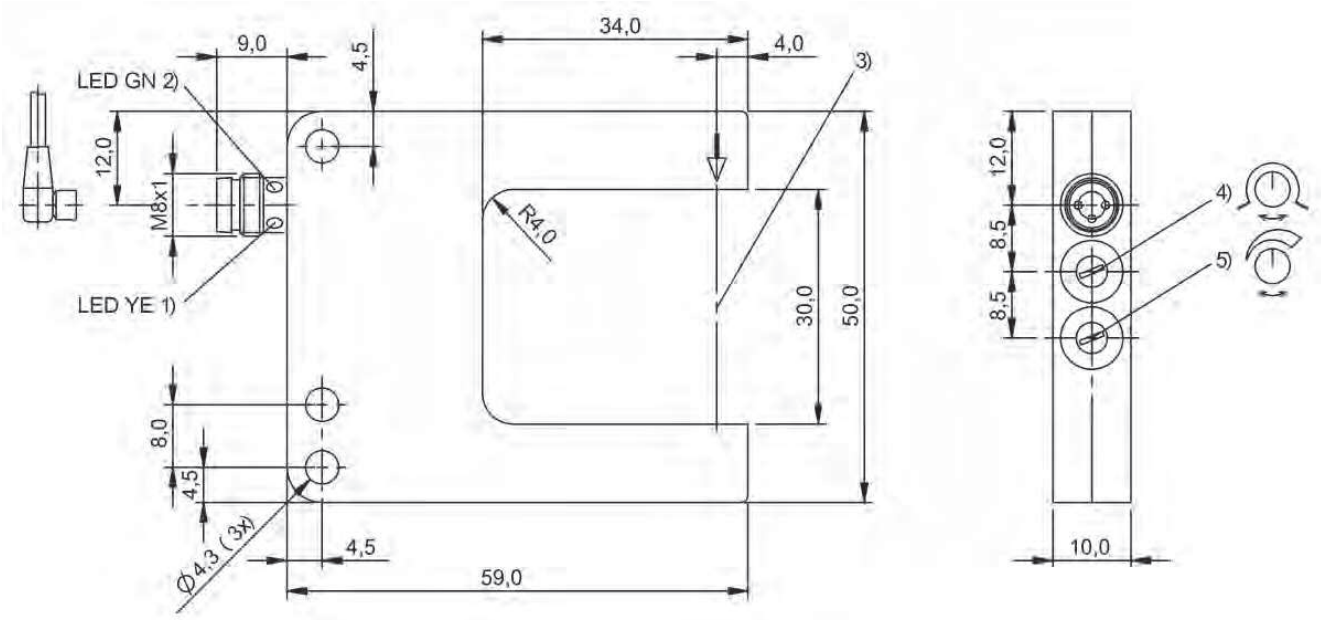
1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function, 5) Operating voltage

BGL0005



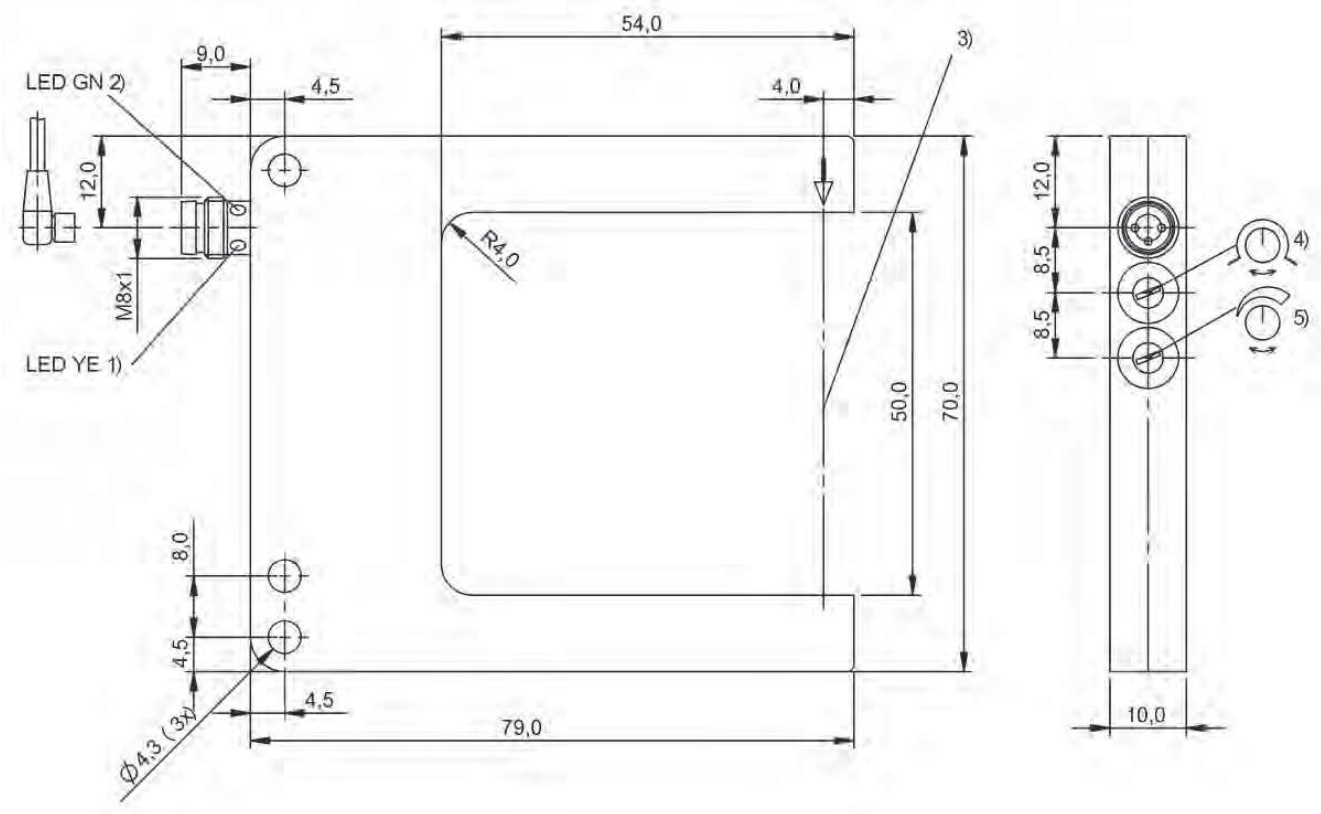
1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function, 5) Operating voltage

BGL000Y



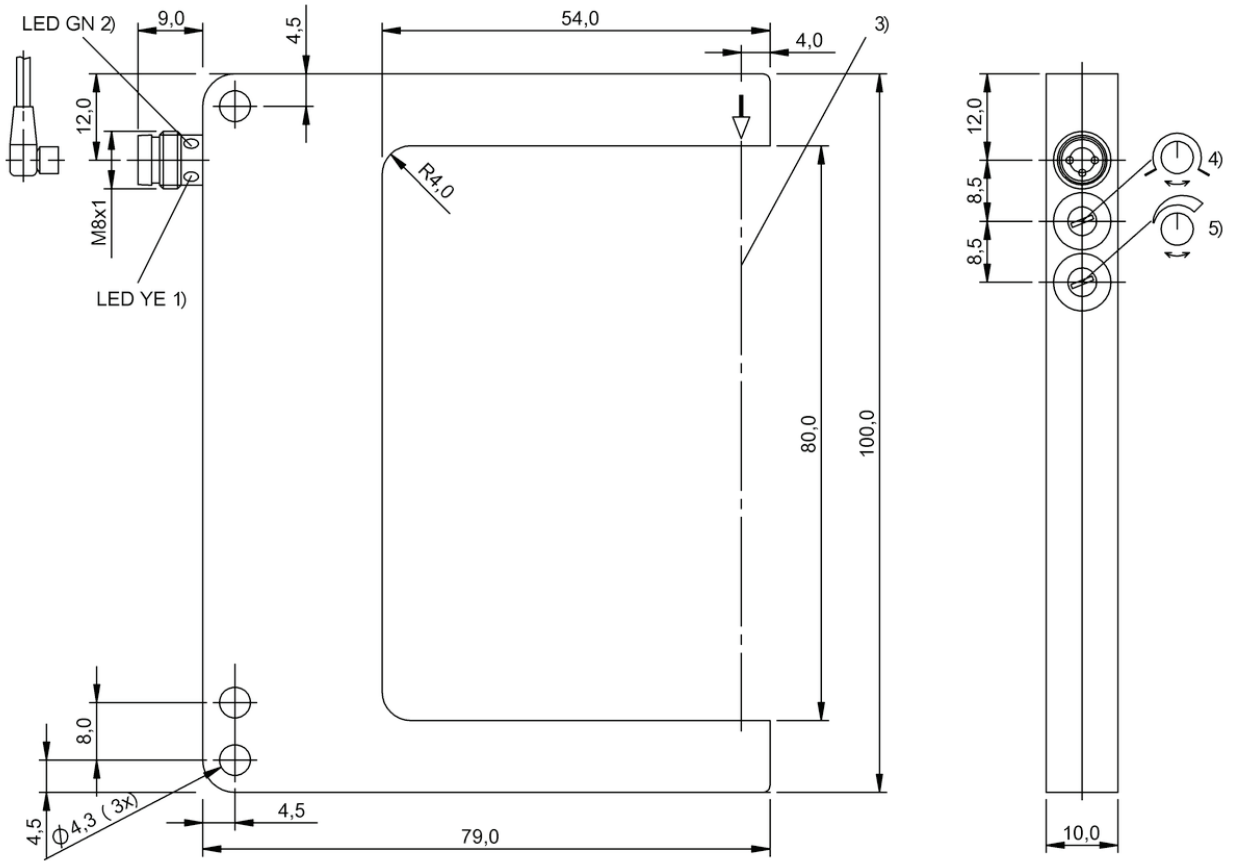
1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

BGL001F, BGL003J



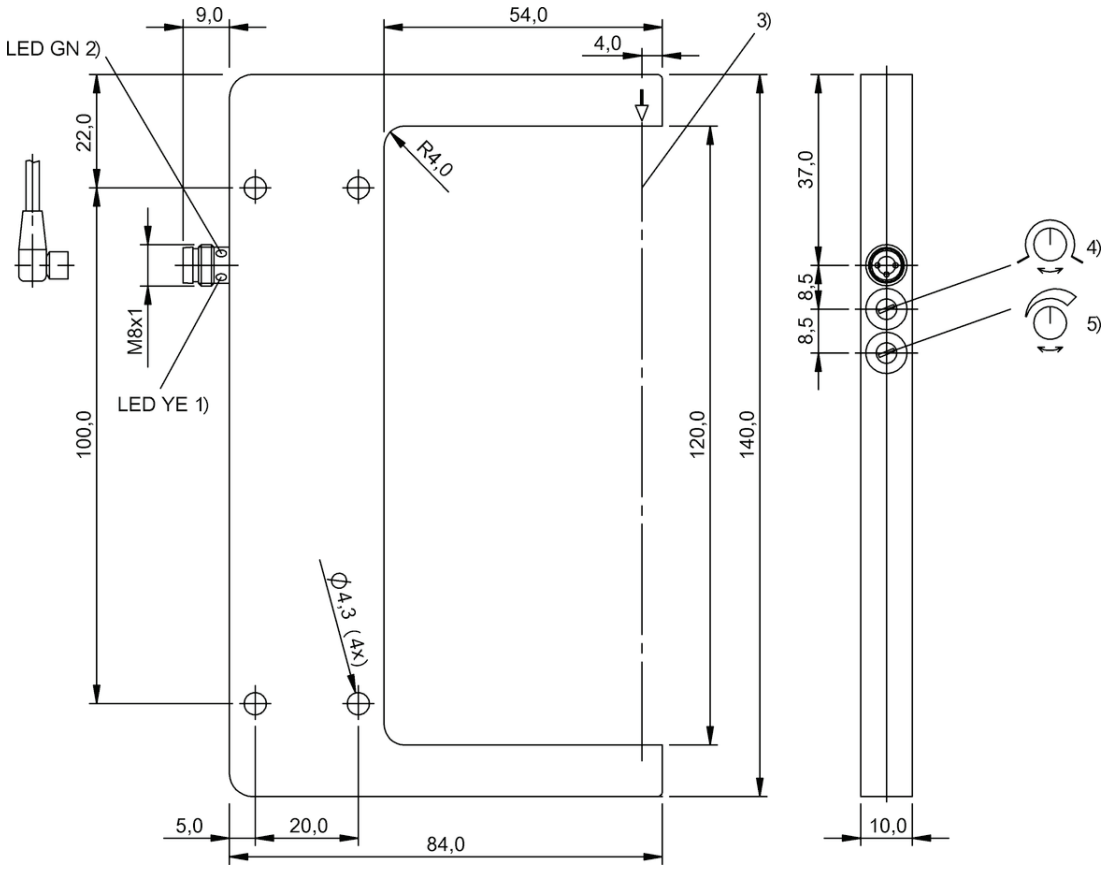
1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

BGL001T



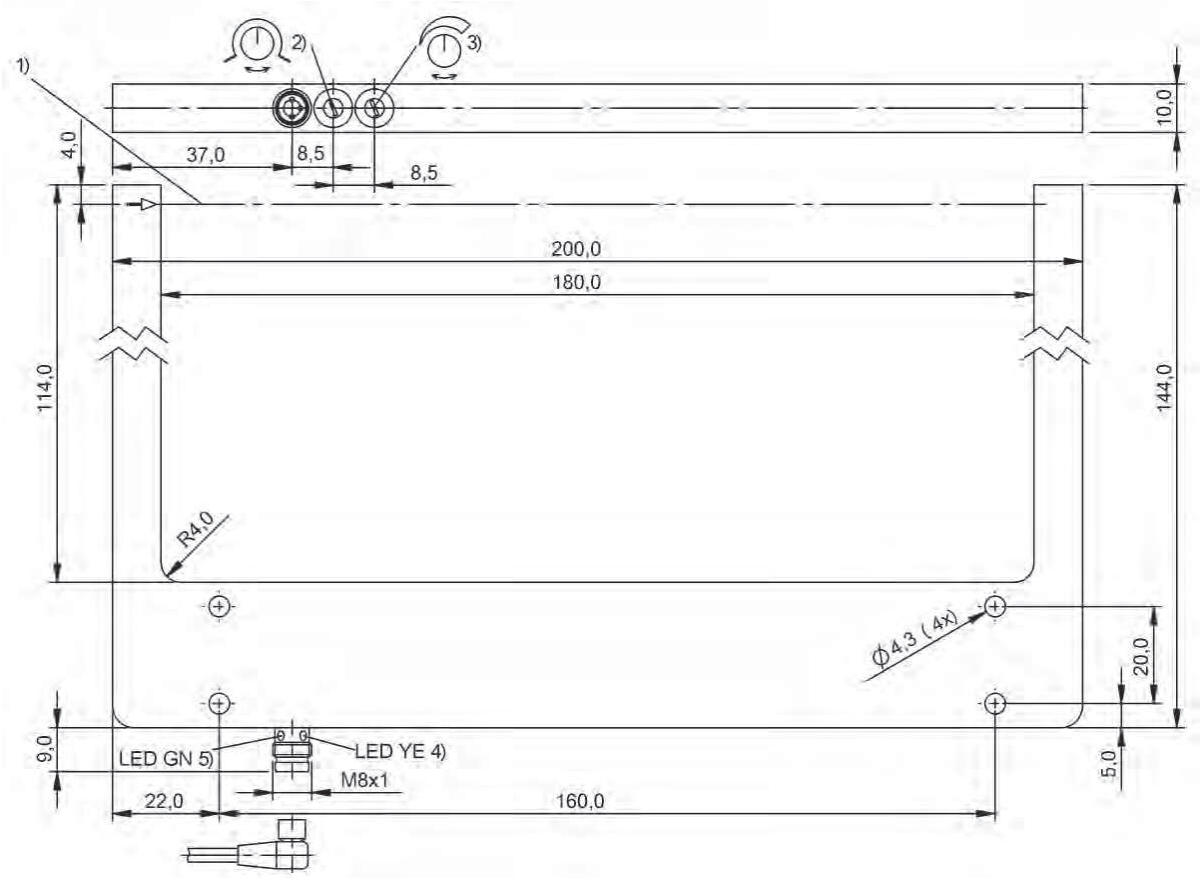
1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

BGL0029, BGL003L



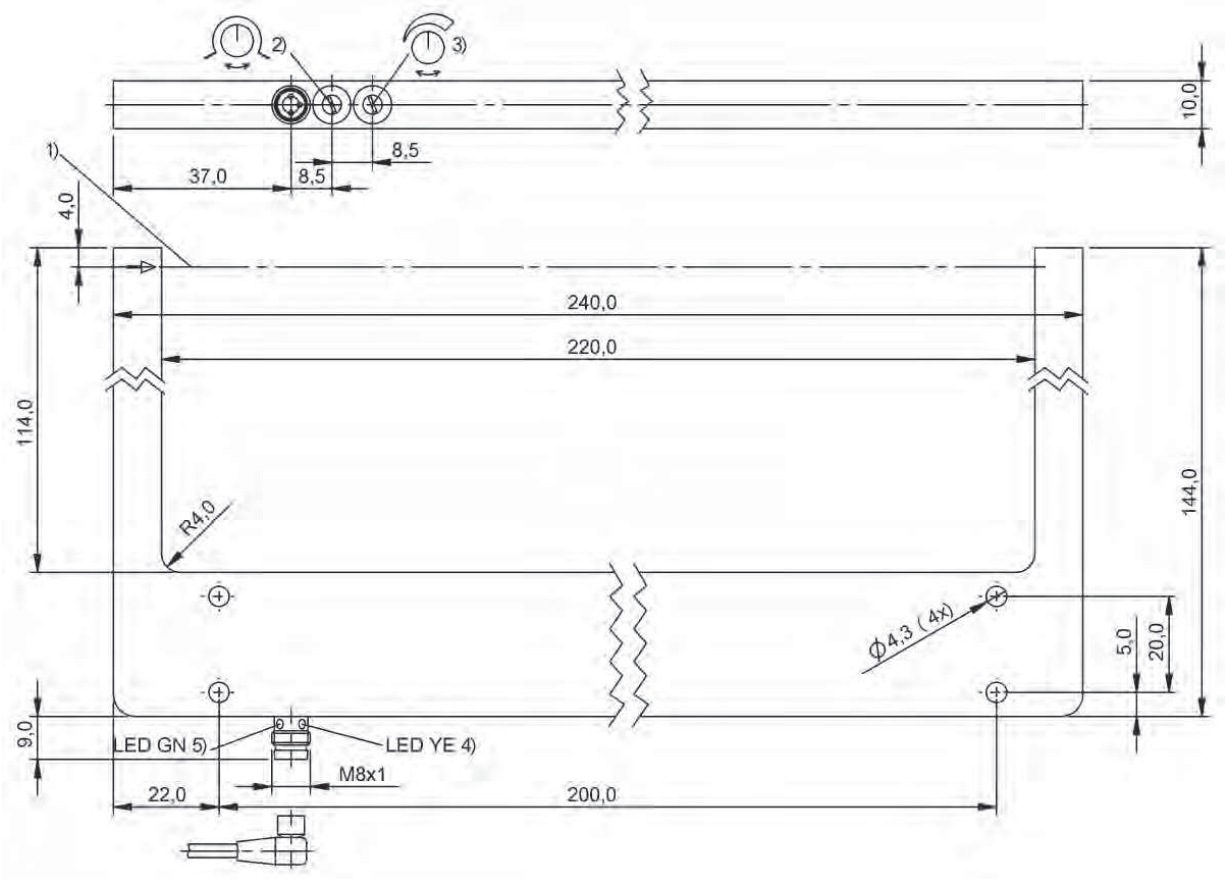
1) Output function, 2) Operating voltage, 3) Optical axis, 4) Light-on/dark-on, 5) Sensitivity

BGL000F



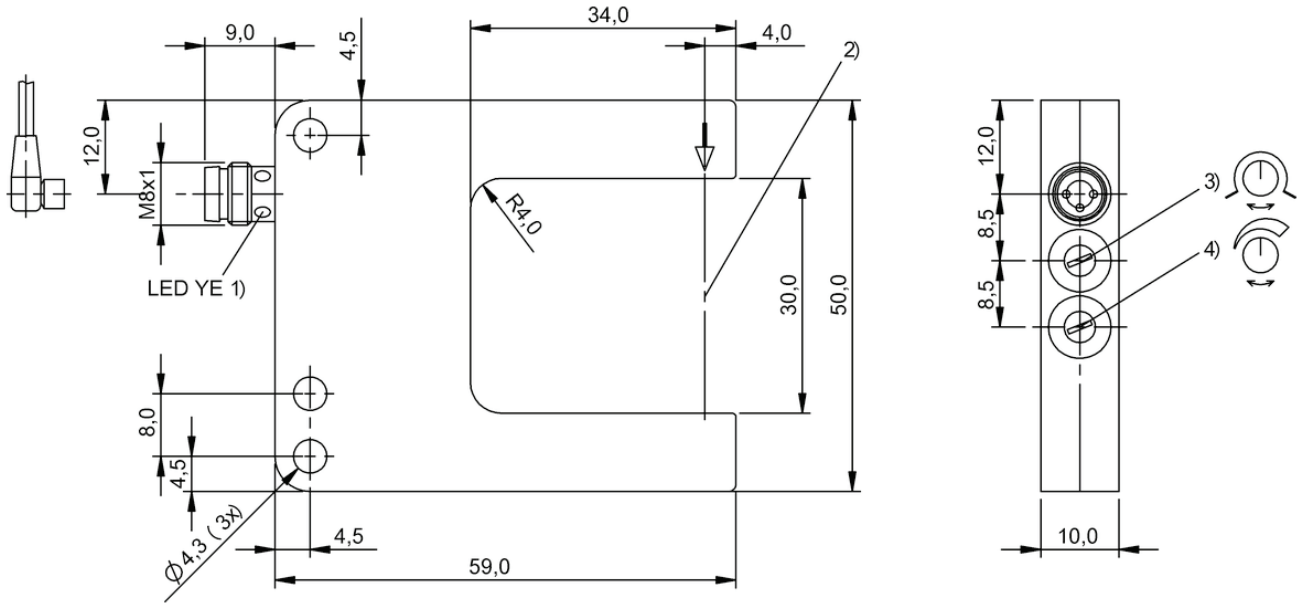
1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function, 5) Operating voltage

BGL000N



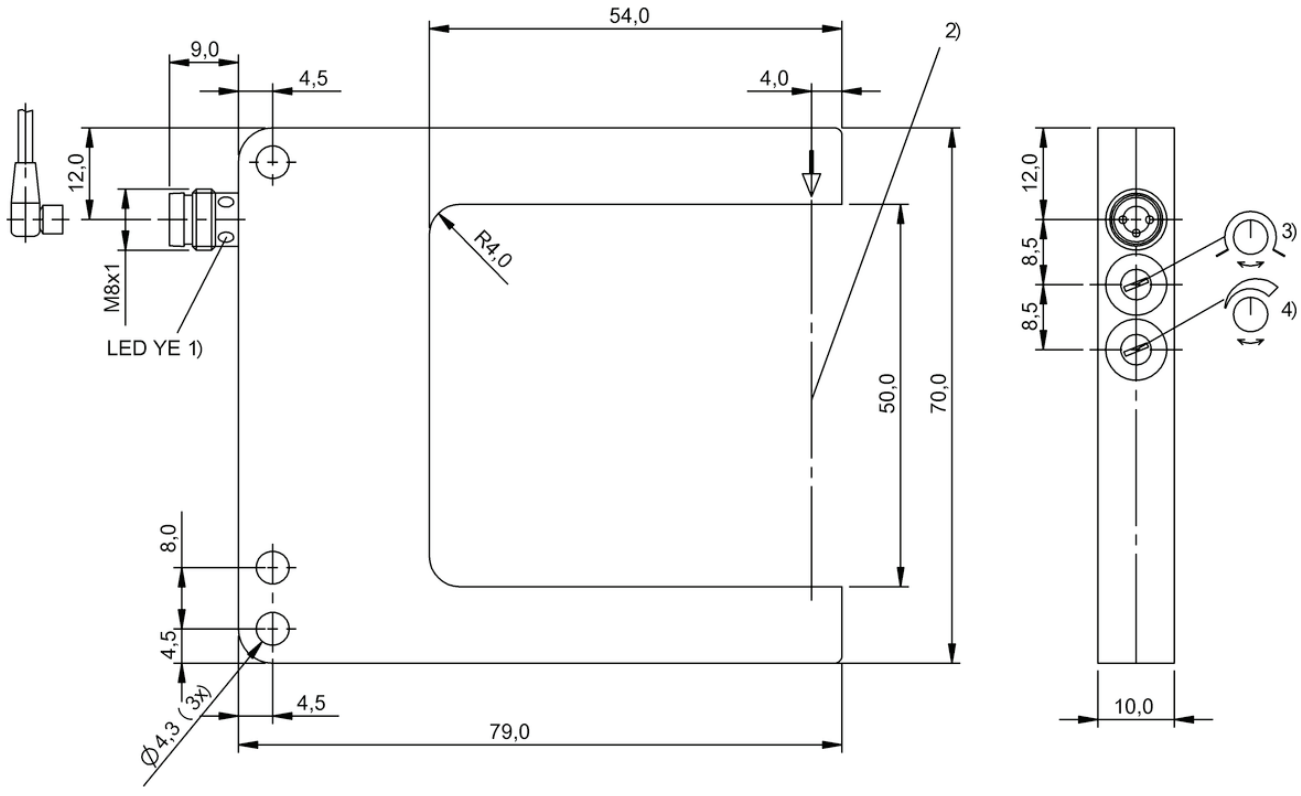
1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function, 5) Operating voltage

BGL0014



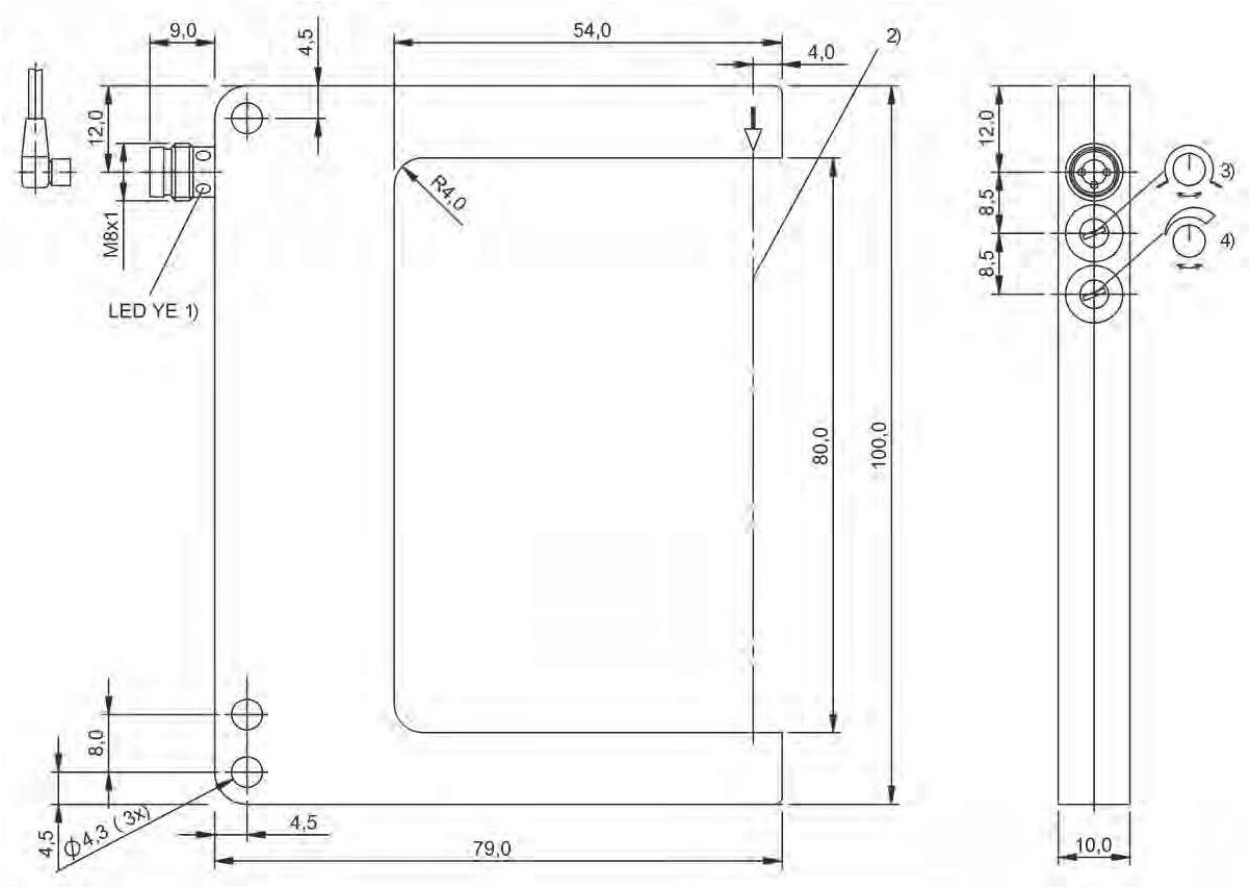
1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

BGL0019, BGL001C, BGL0016



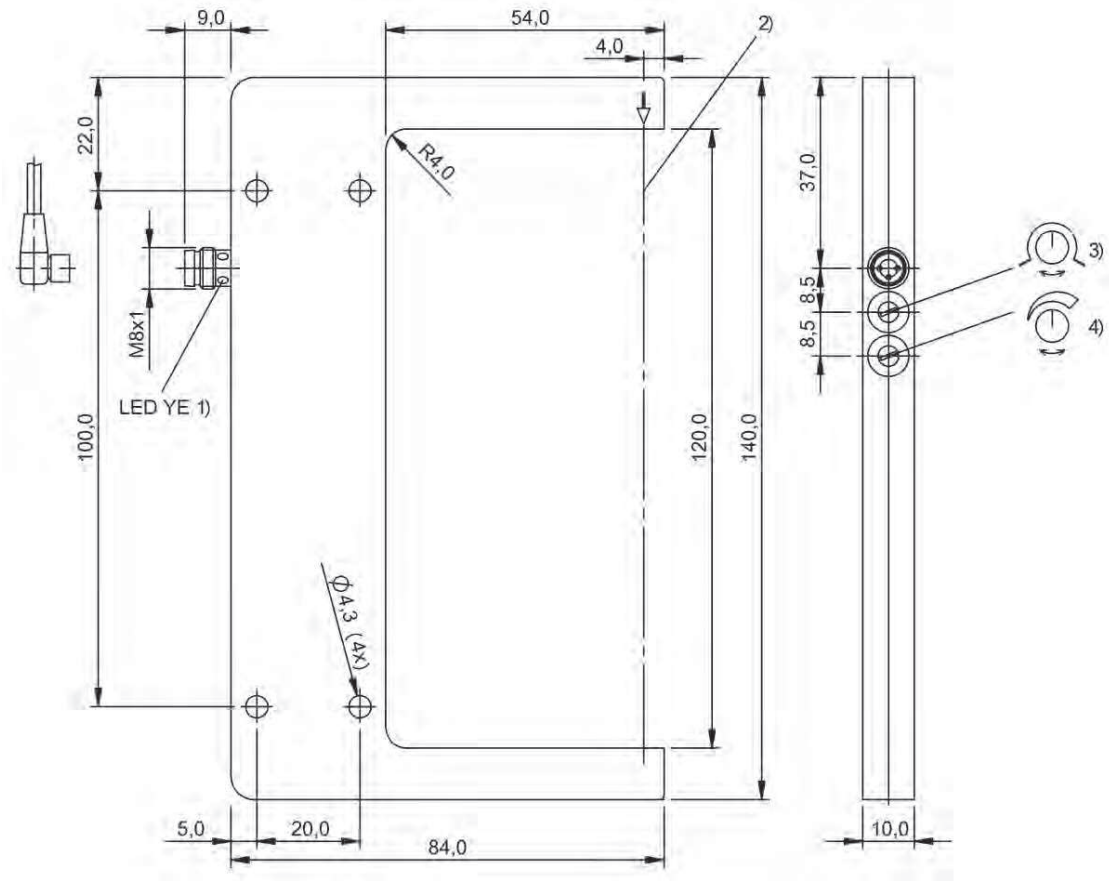
1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

BGL001M, BGL001P, BGL001J



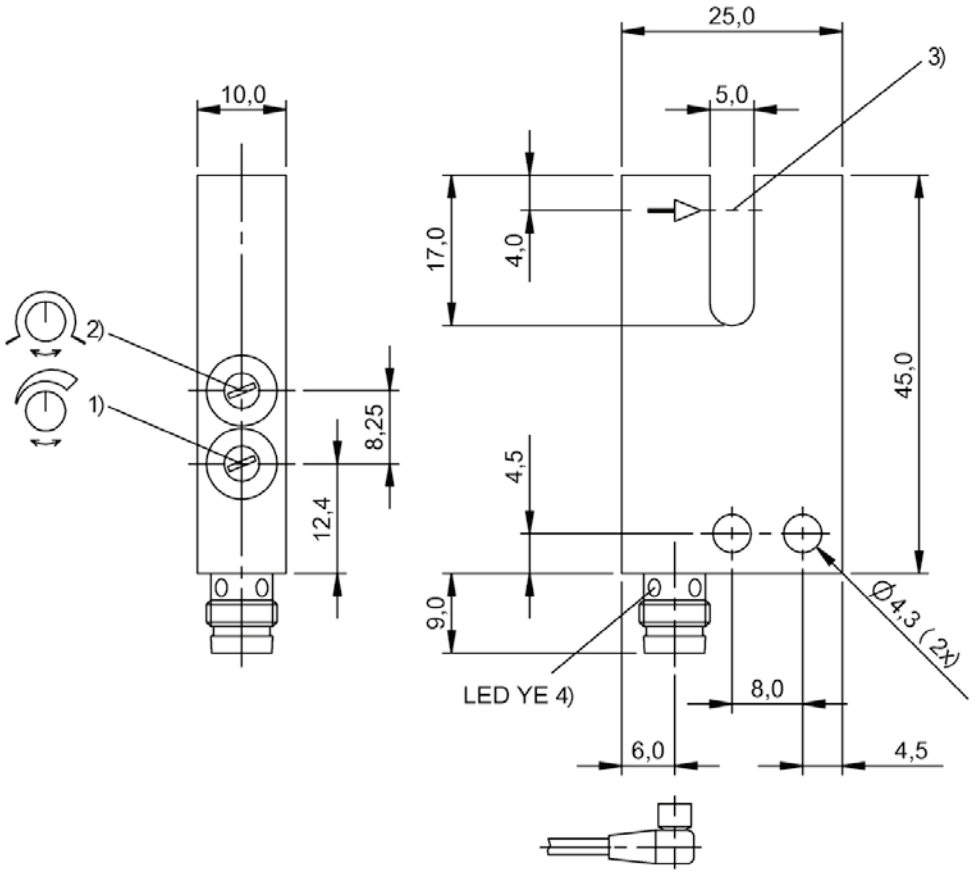
1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

BGL0025, BGL0027, BGL0023



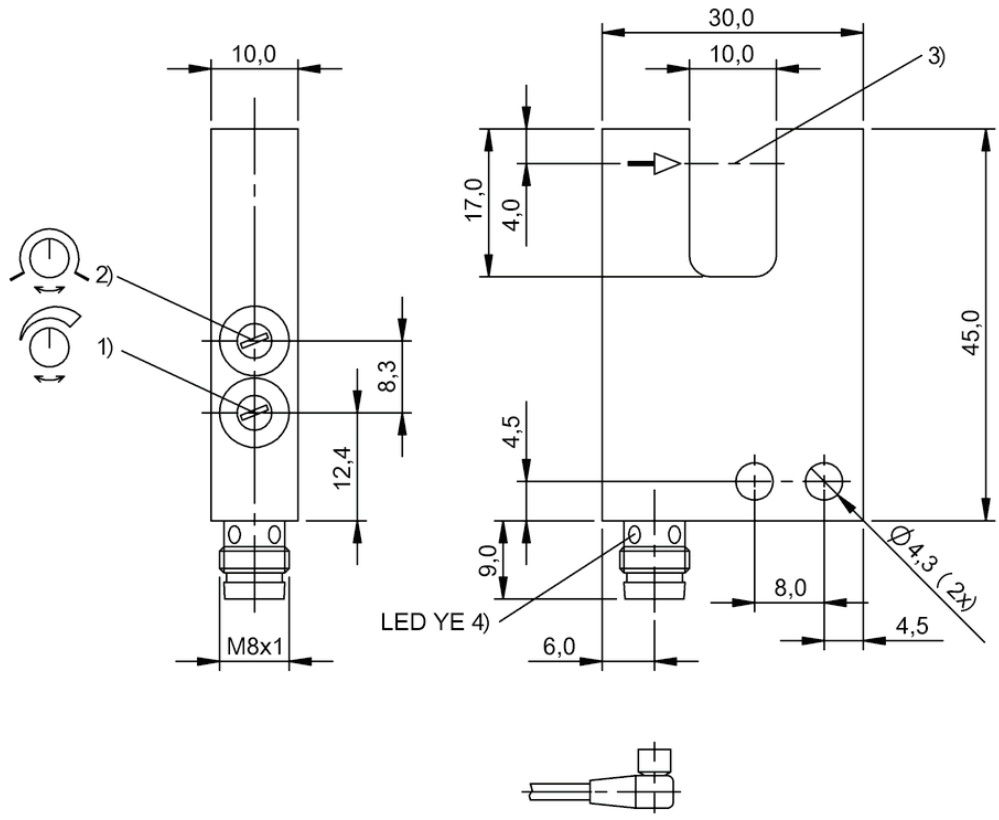
1) Output function, 2) Optical axis, 3) Light-on/dark-on, 4) Sensitivity

BGL0009, BGL000C, BGL0007



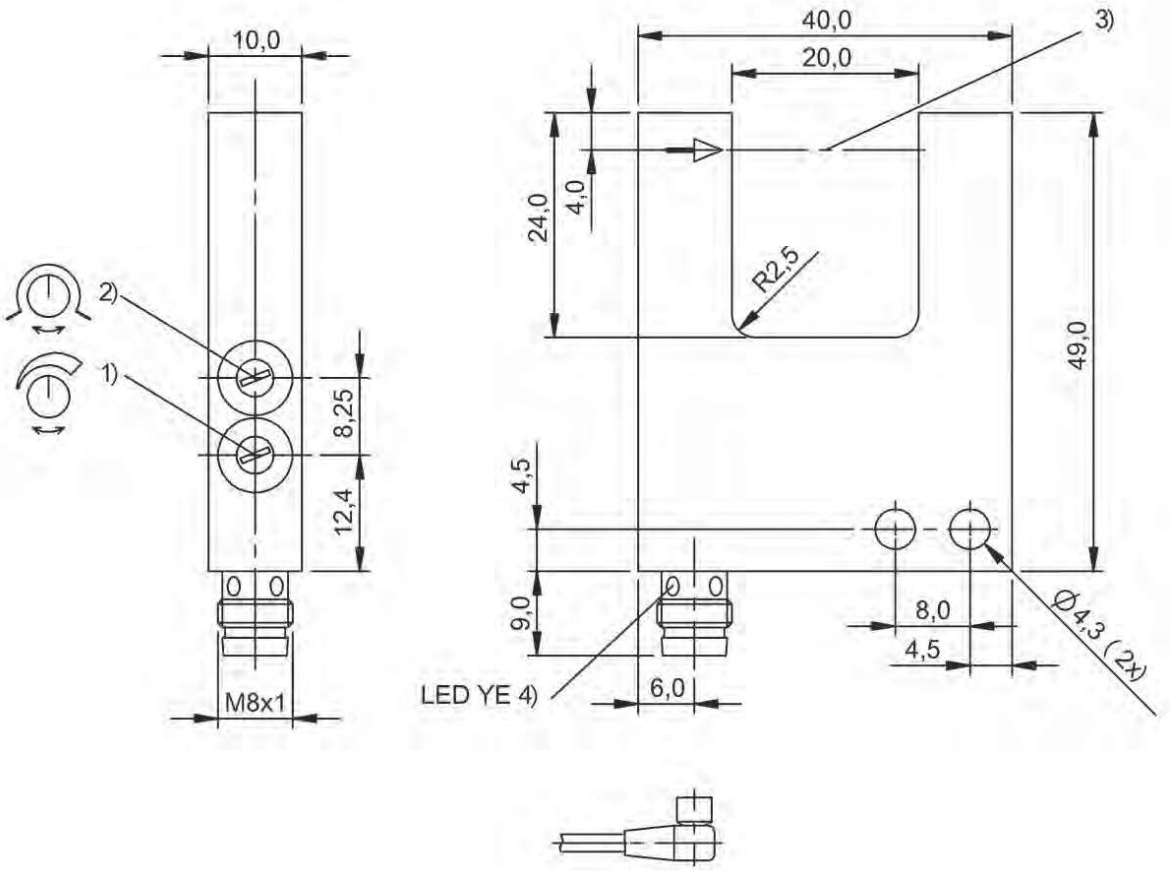
1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function

BGL001Z, BGL001W



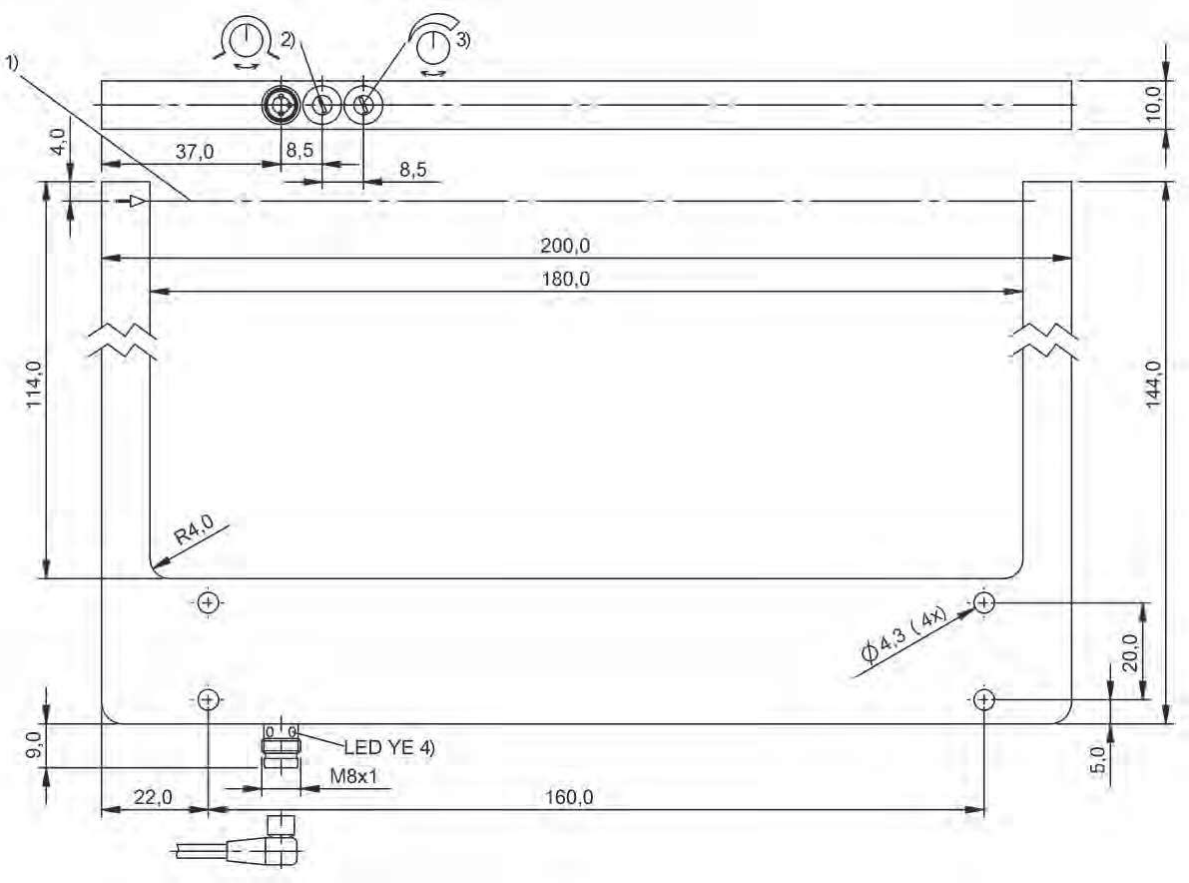
1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function

BGL0003, BGL0001



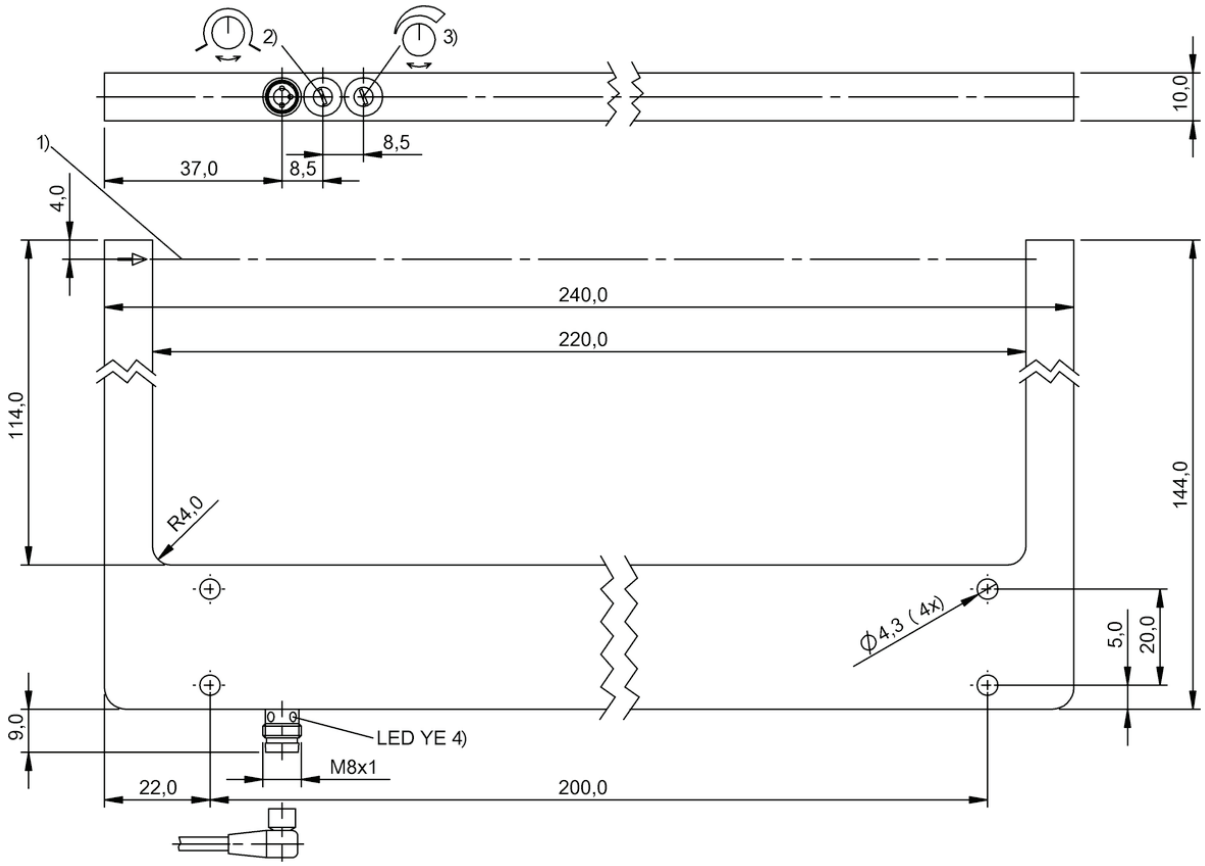
1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function

BGL000U, BGL000R



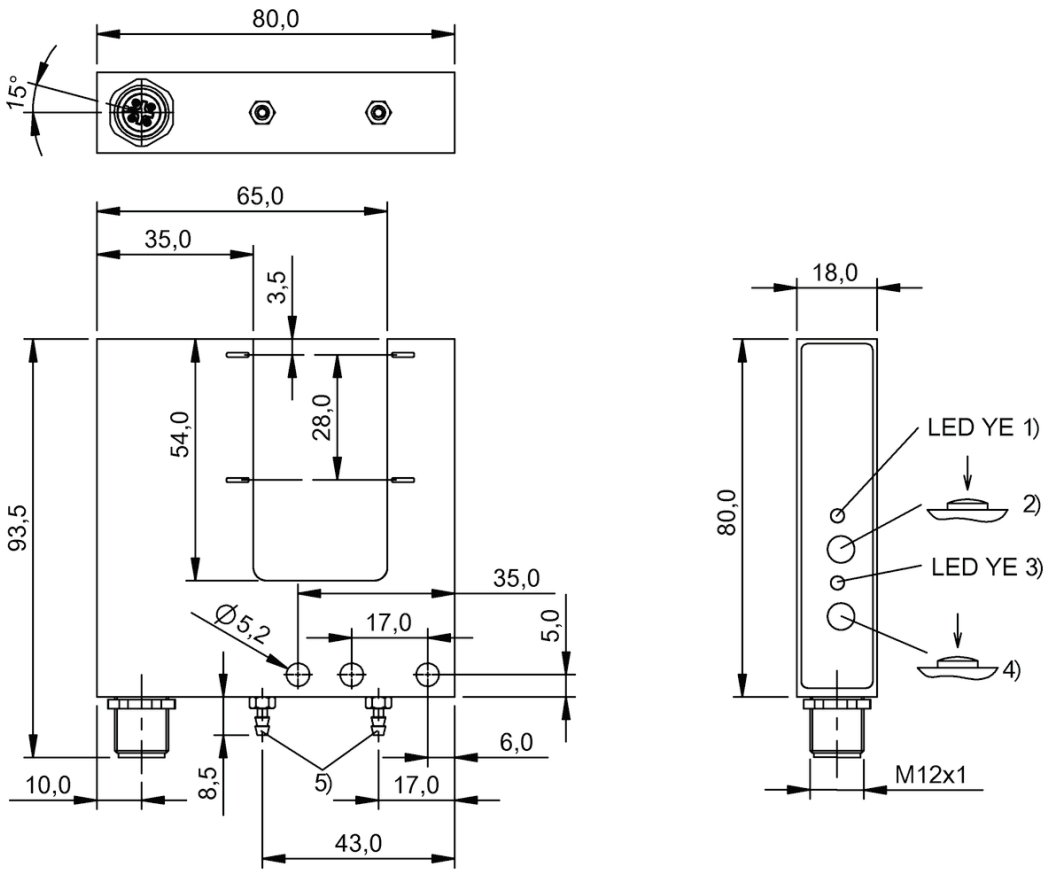
1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function

BGL000L, BGL000J



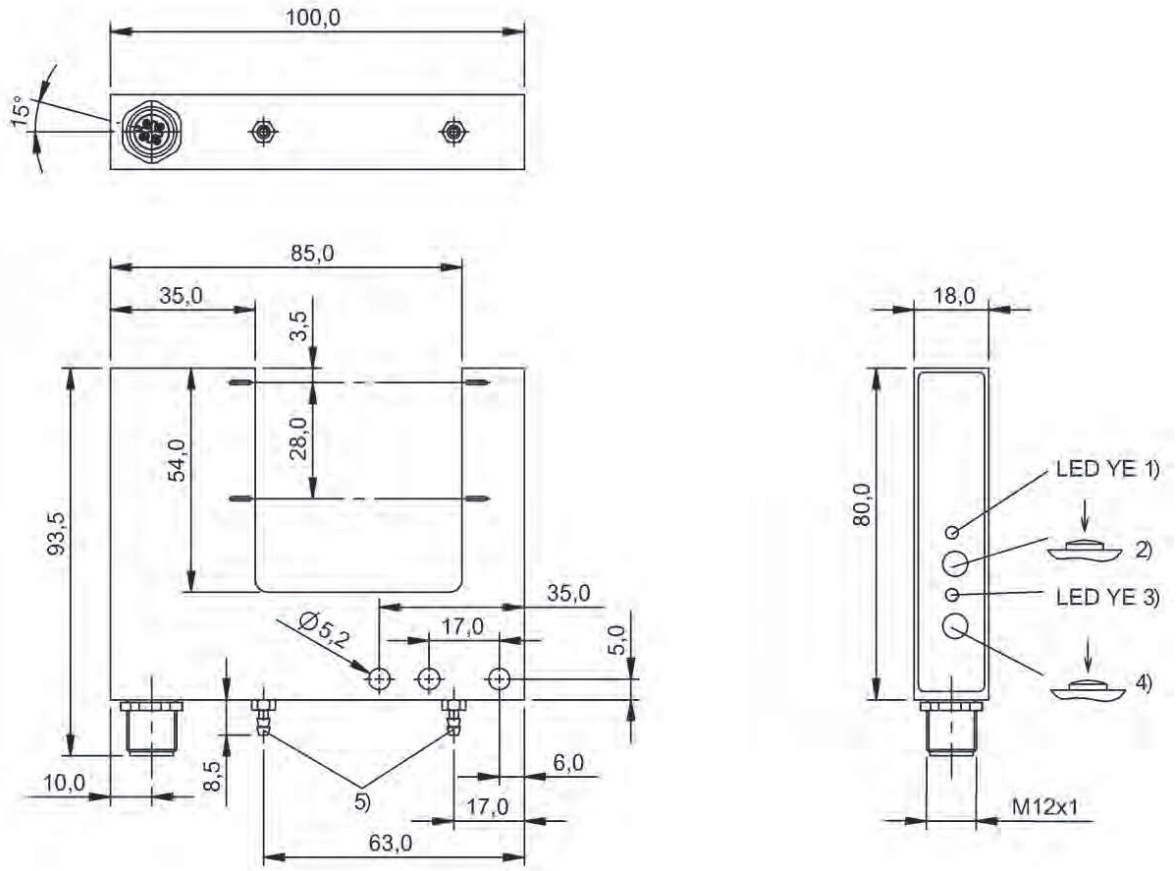
1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function

BGL0012, BGL0010



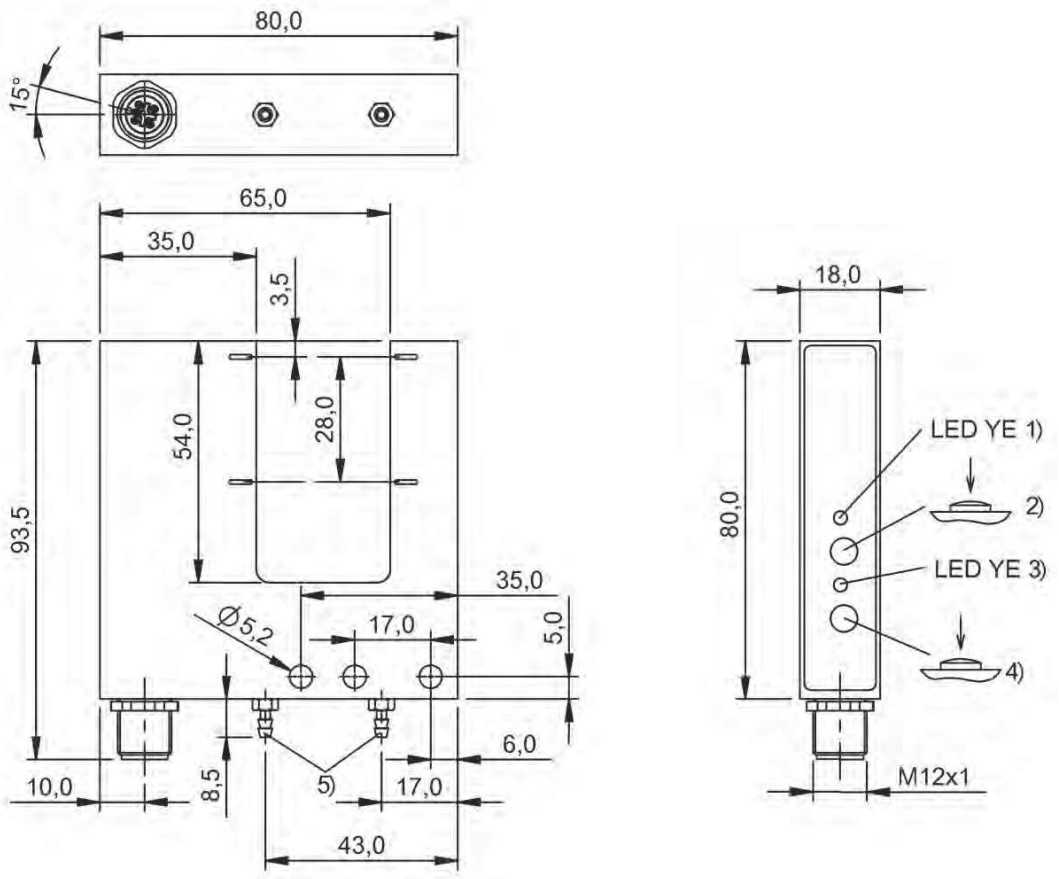
1) SP1 active / error, 2) SP1: recvr., light/dark, 3) SP2 active / error, 4) SP2: recvr., light/dark, 5) Pneumatics connection PK-3

BGL0035



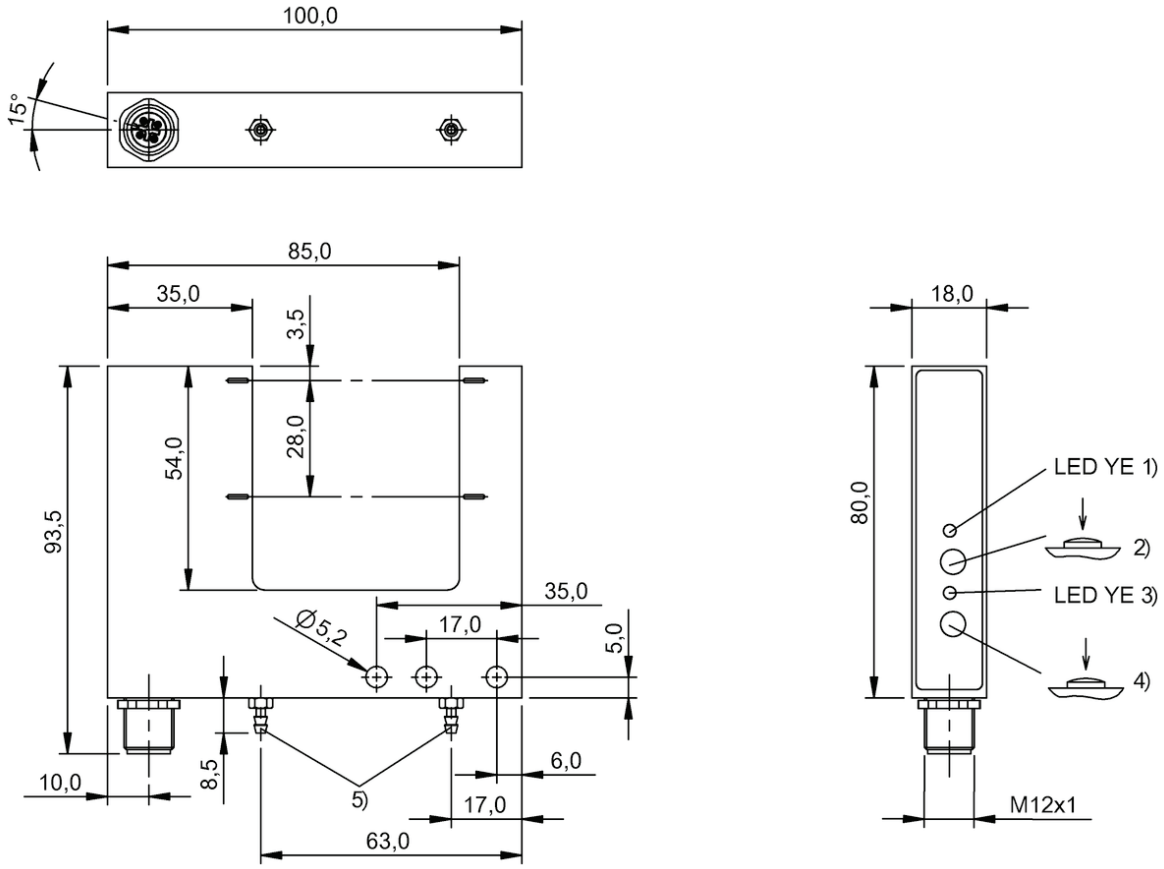
1) SP1 active / error, 2) SP1: recvr., light/dark, 3) SP2 active / error, 4) SP2: recvr., light/dark, 5) Pneumatics connection PK-3

BGL003F



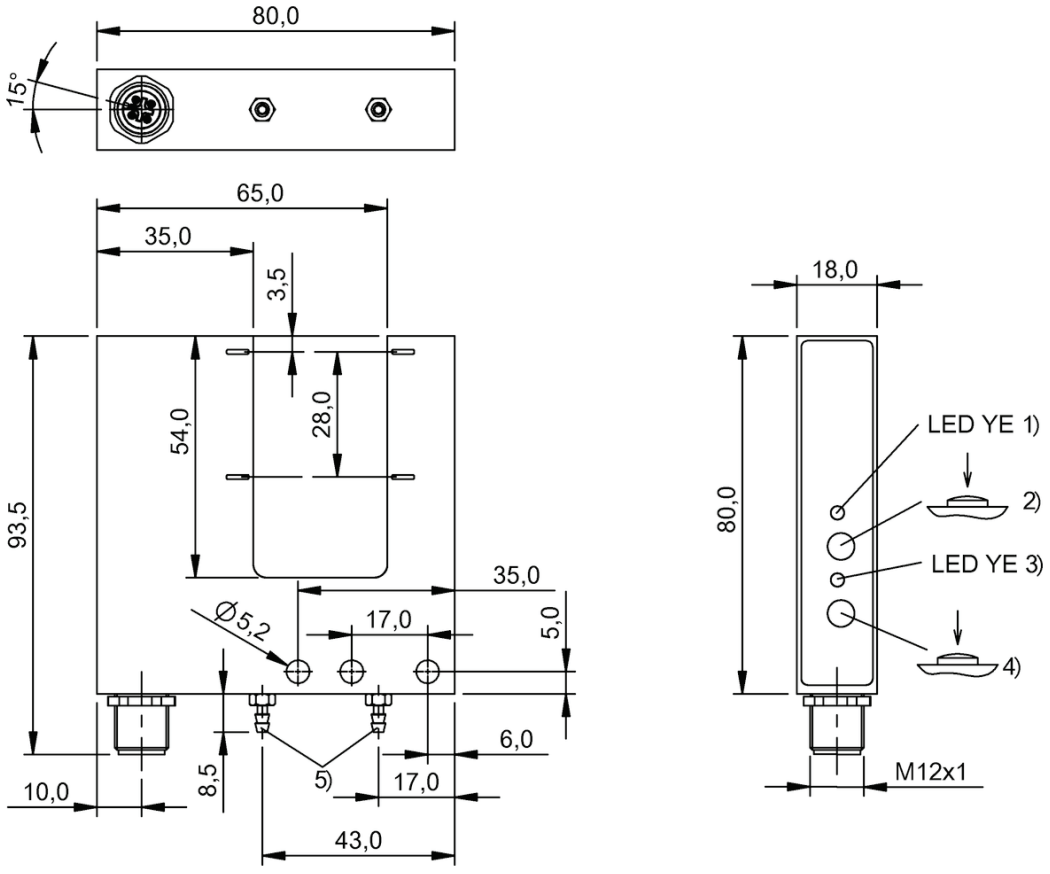
1) Output function/Error, 2) Output mode, recvr., L/D, 3) Error, 4) Output curve rising/falling, 5) Pneumatics connection PK-3

BGL0031, BGL0033



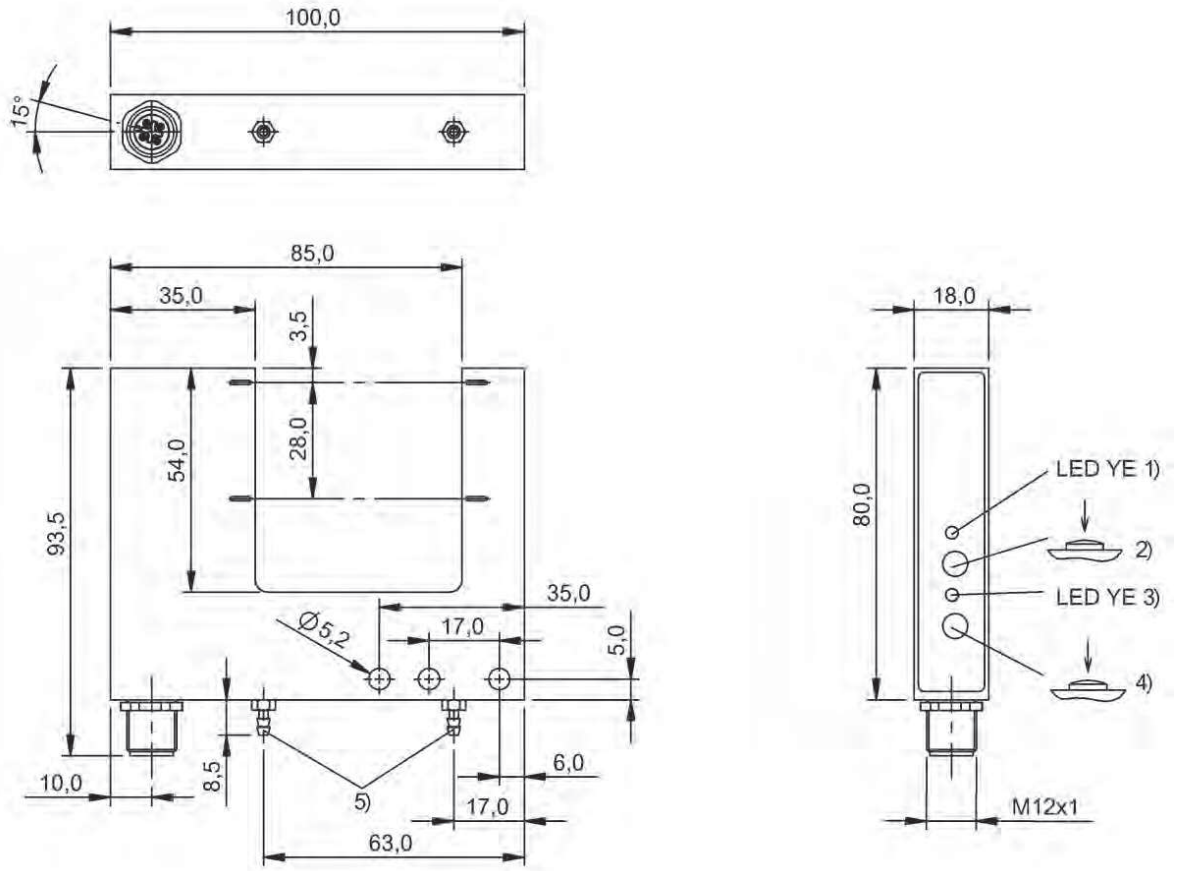
1) Output function/Error, 2) Output mode, recvr., L/D, 3) Error, 4) Output curve rising/falling, 5) Pneumatics connection PK-3

BGL0039, BGL003C



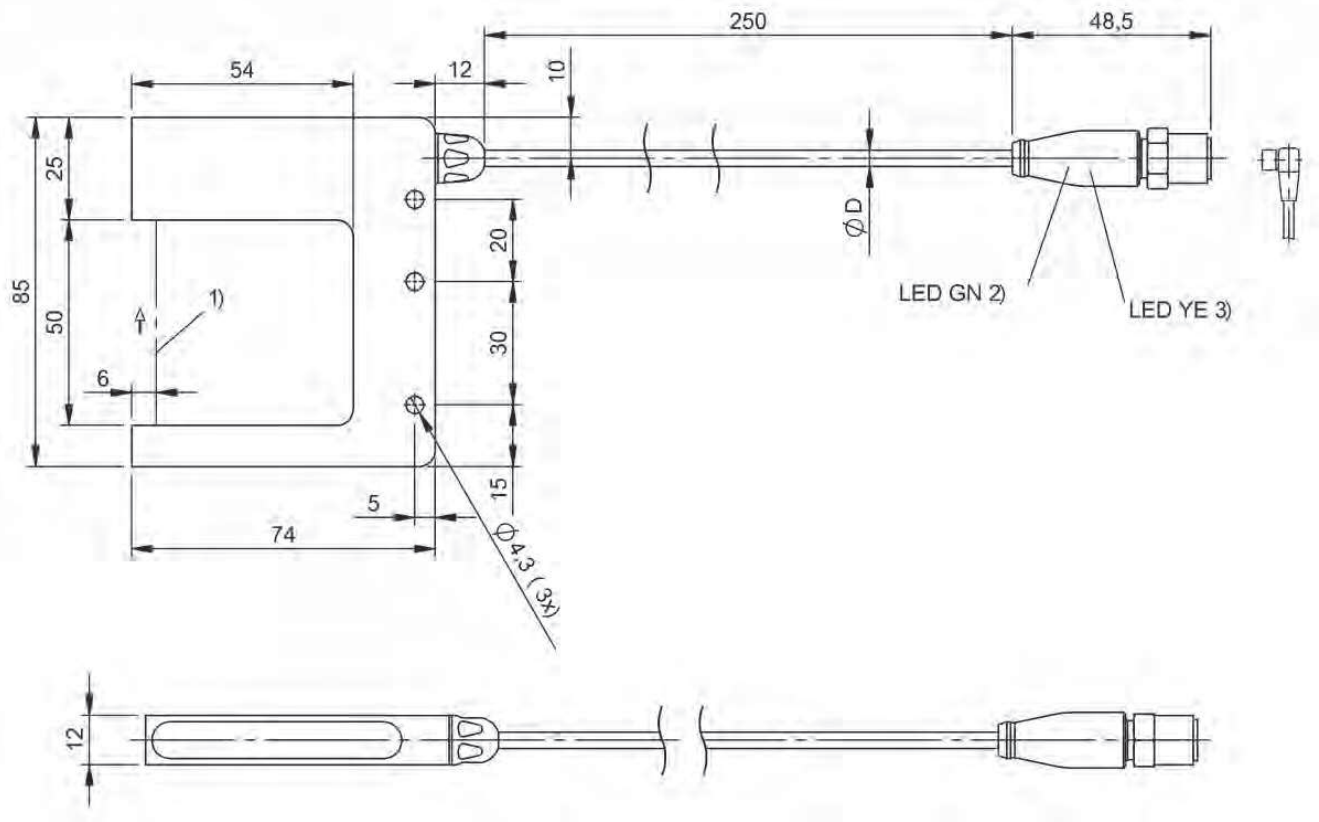
1) Q1 active / error, 2) Q1: recvr., light/dark, 3) Q2 active / error, 4) Q2: recvr., light/dark, 5) Pneumatics connection PK-3

BGL002Z



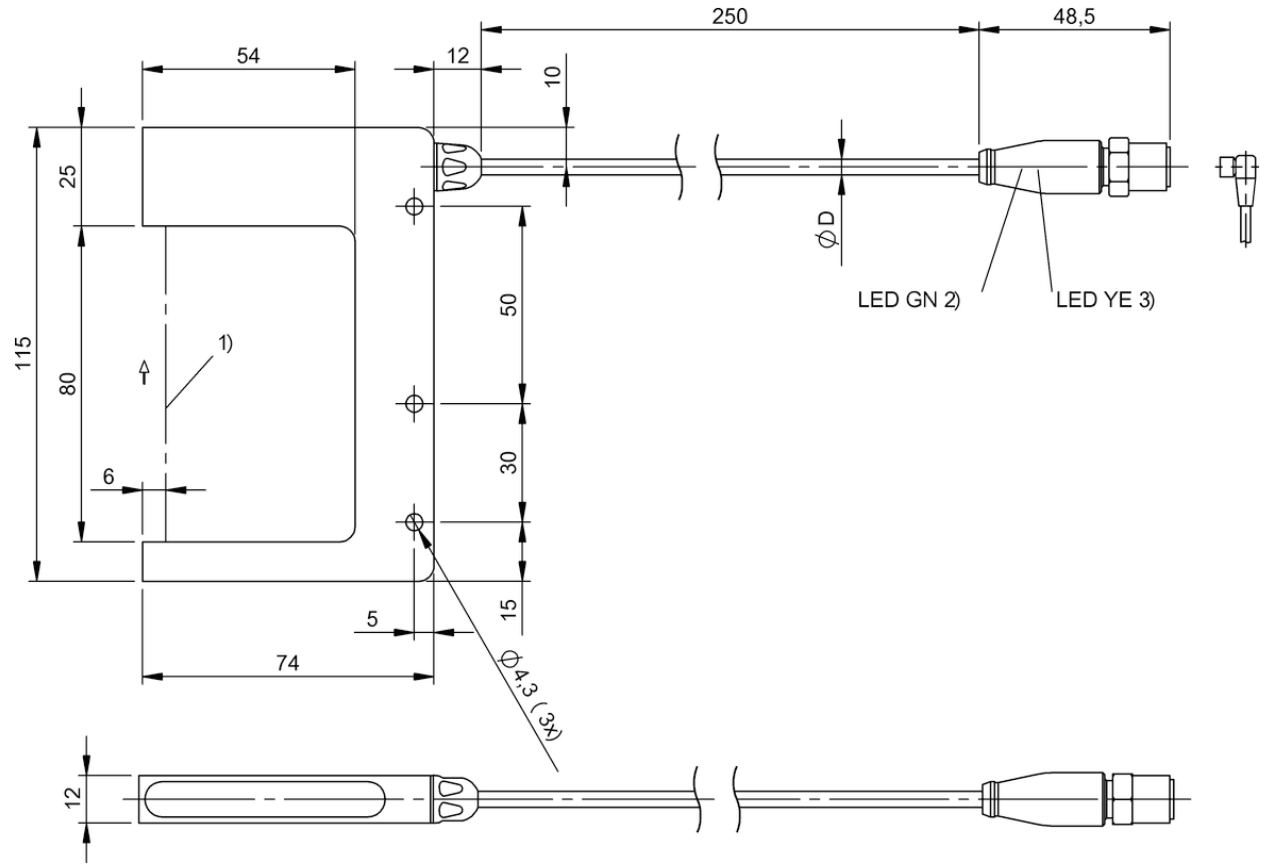
1) Q1 active / error, 2) Q1: recvr., light/dark, 3) Q2 active / error, 4) Q2: recvr., light/dark, 5) Pneumatics connection PK-3

BGL0037



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

BGL004M, BGL004L



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

BGL004P, BGL004N



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 Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	CE, cULus	CE, cULus	
Trademark	—	—	—	
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	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 483	Page 484	Page 484	Page 485	Page 485



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 Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus	
Trademark	—	—	—	
Productview	Page 486	Page 486	Page 484	

	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	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	CE, cULus	CE, cULus, EAC
	—	—	—	—	Global
	Page 485	Page 485	Page 486	Page 486	Page 484



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 Ub	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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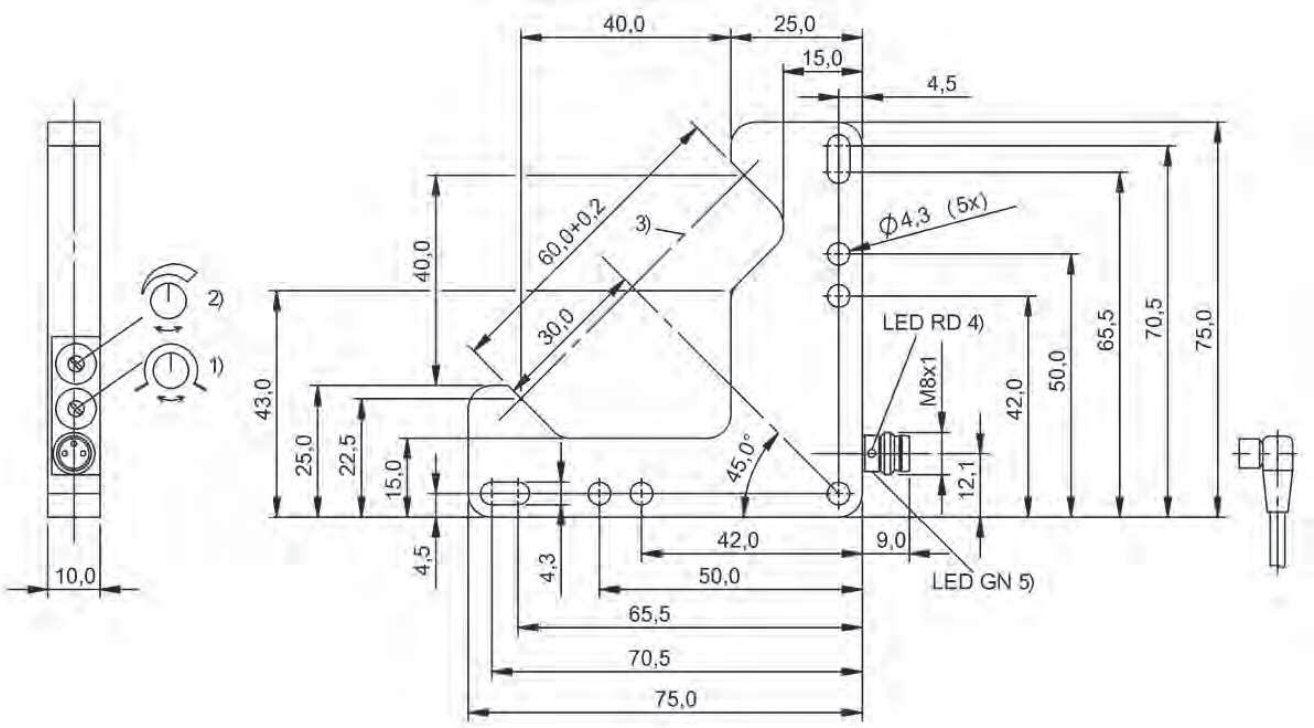
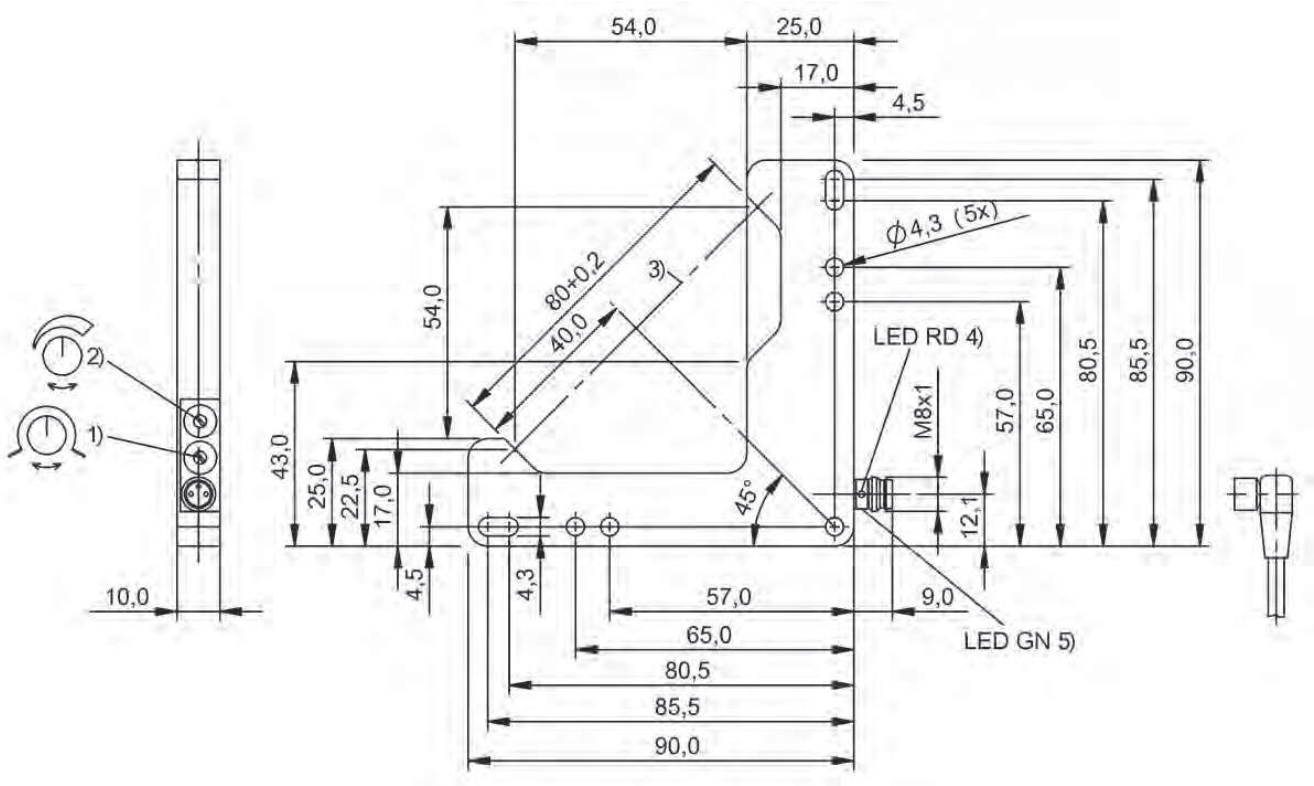
	BWL0005 BWL 110110D-R011-S49				
	D				
	12 x 150 x 159 mm				
	Angle sensor				
	Through-beam sensor				
	Divergent				
	LED, red light				
	Ø 2.5 mm Light exit				
	Connector, M8x1 connector, 3-pin				
	Zinc, die-cast				
	Glass				
	10...30 VDC				
	CE, cULus, EAC				
	Global				
	Page 486				



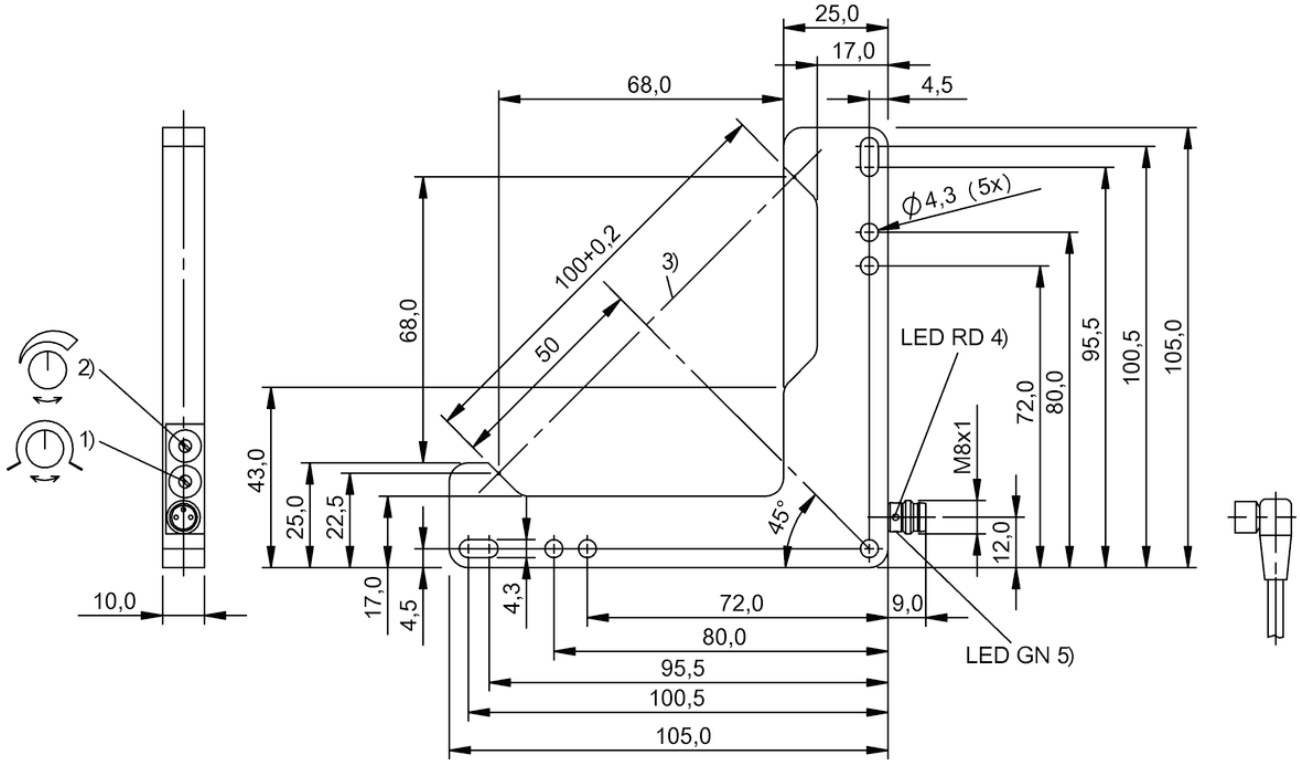
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL0009



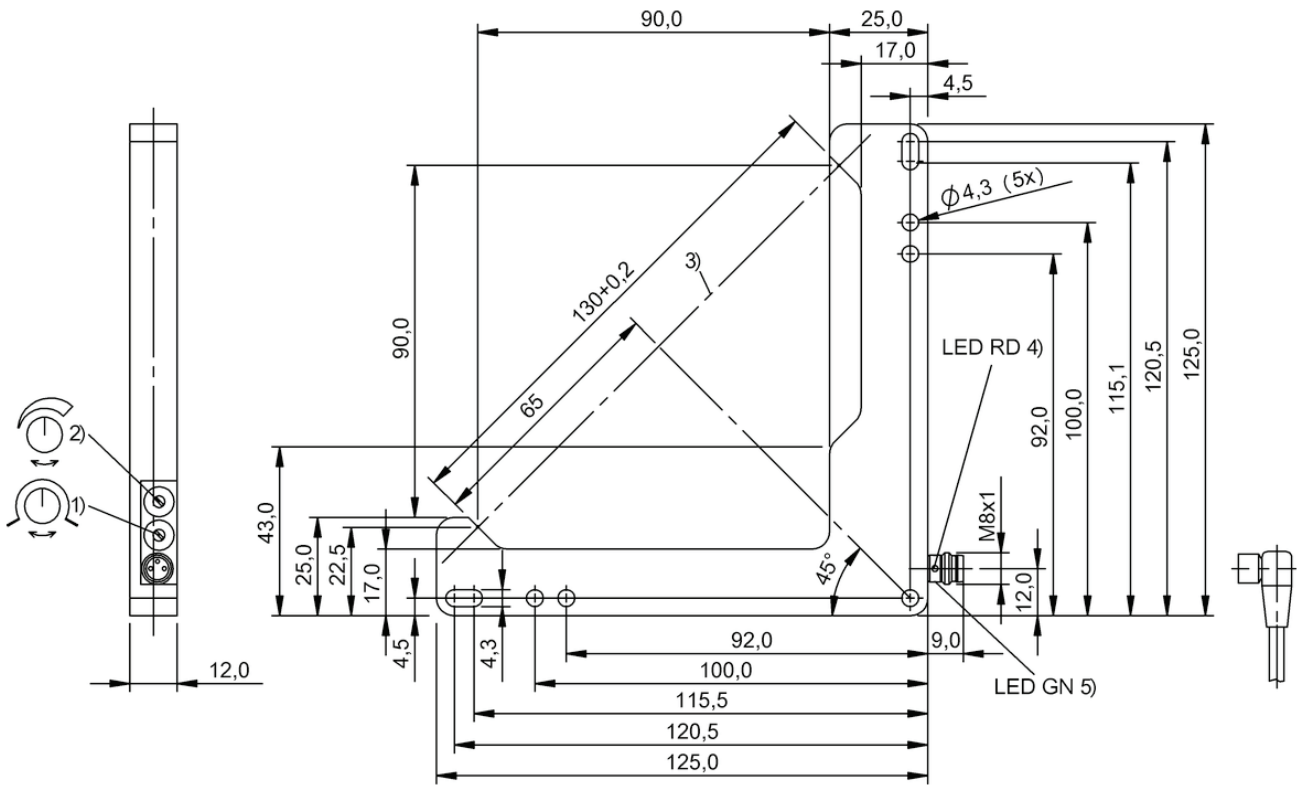
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL000L



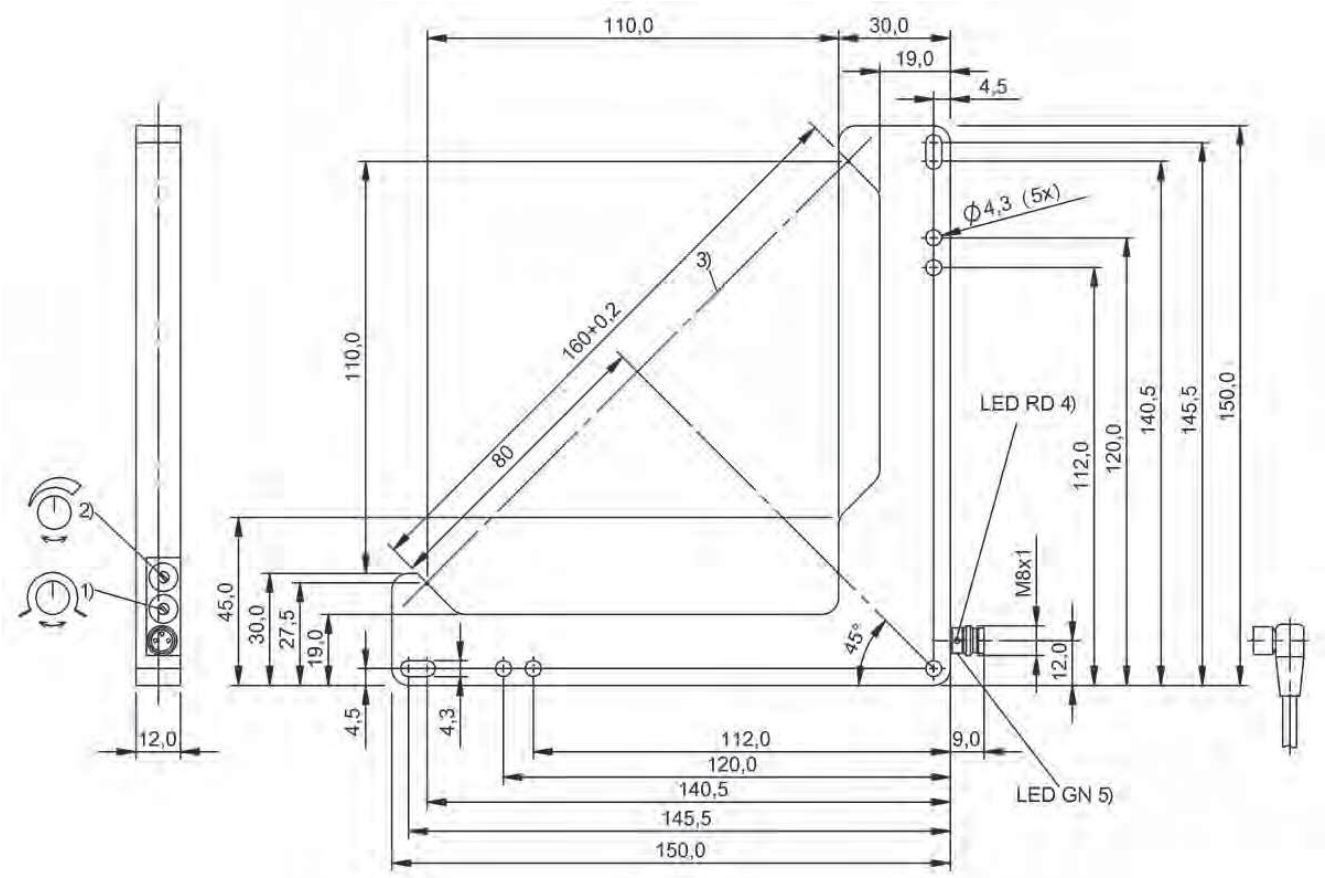
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL000Y



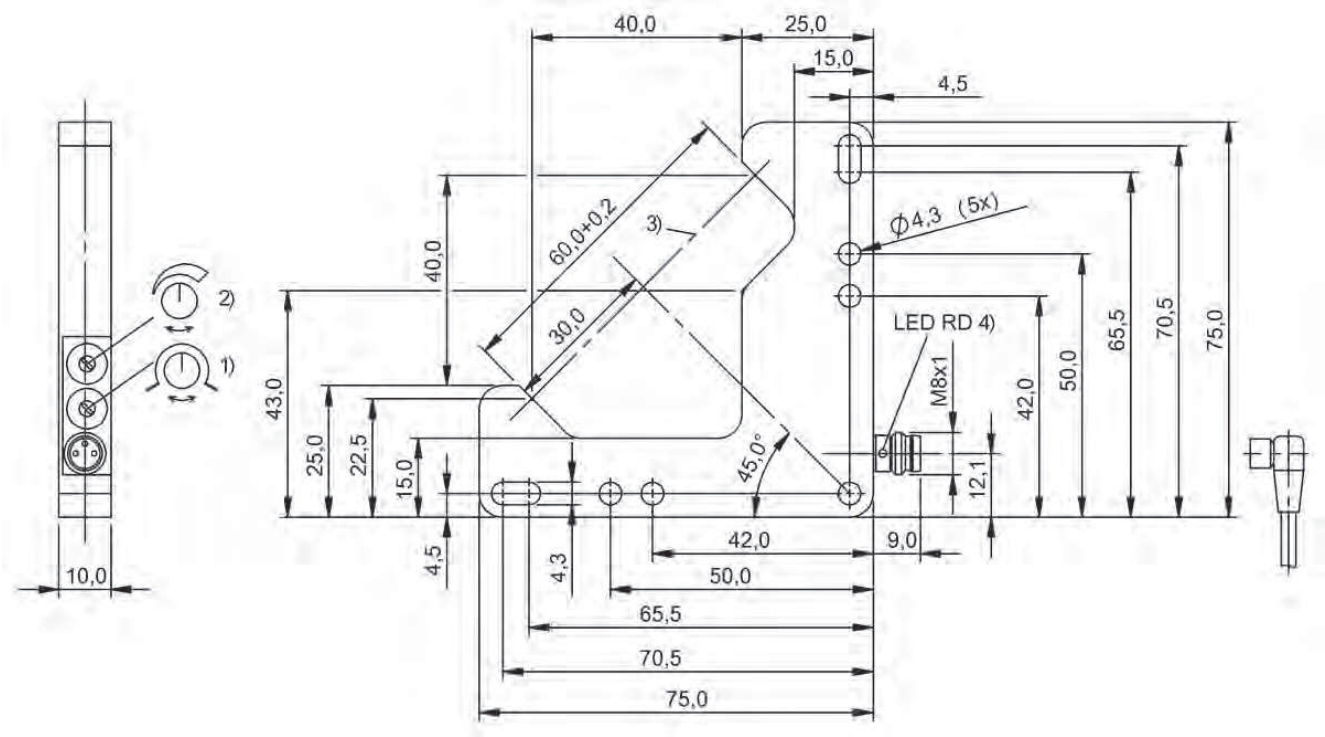
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL0015



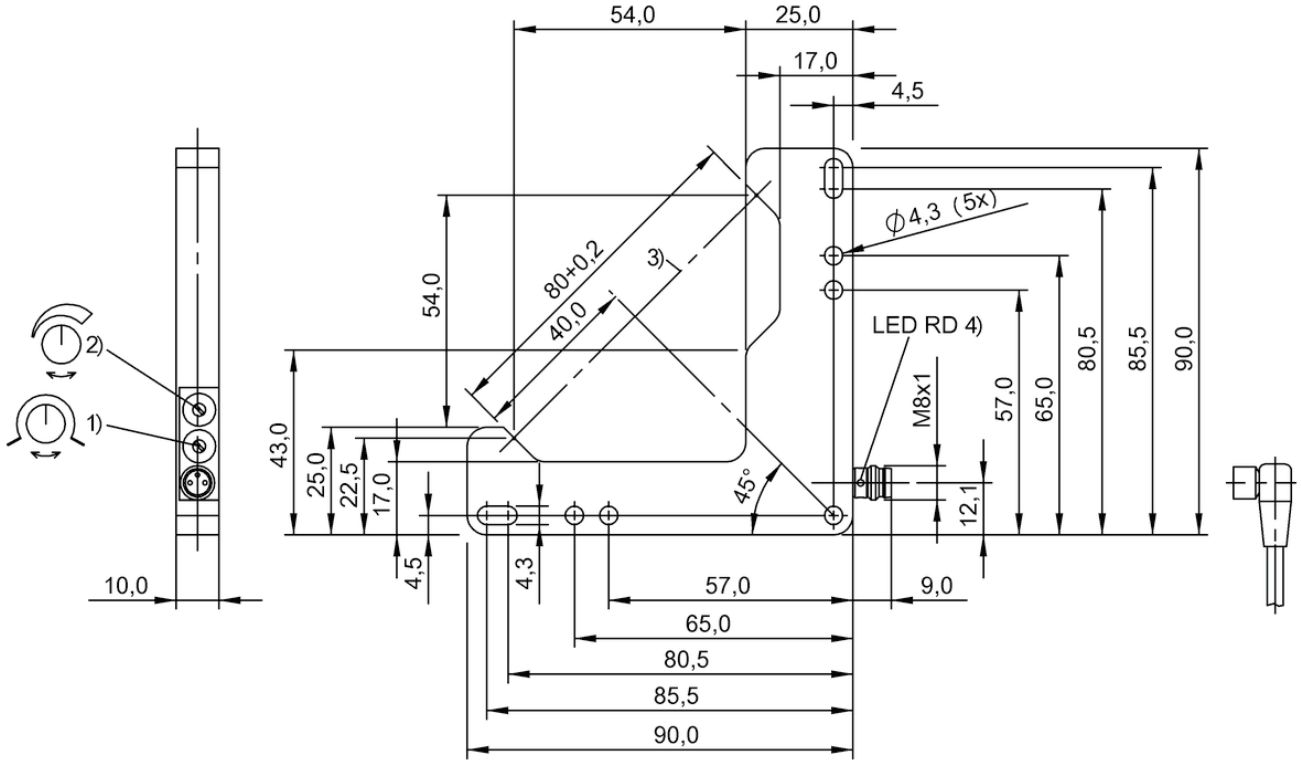
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function, 5) Operating voltage

BWL0001



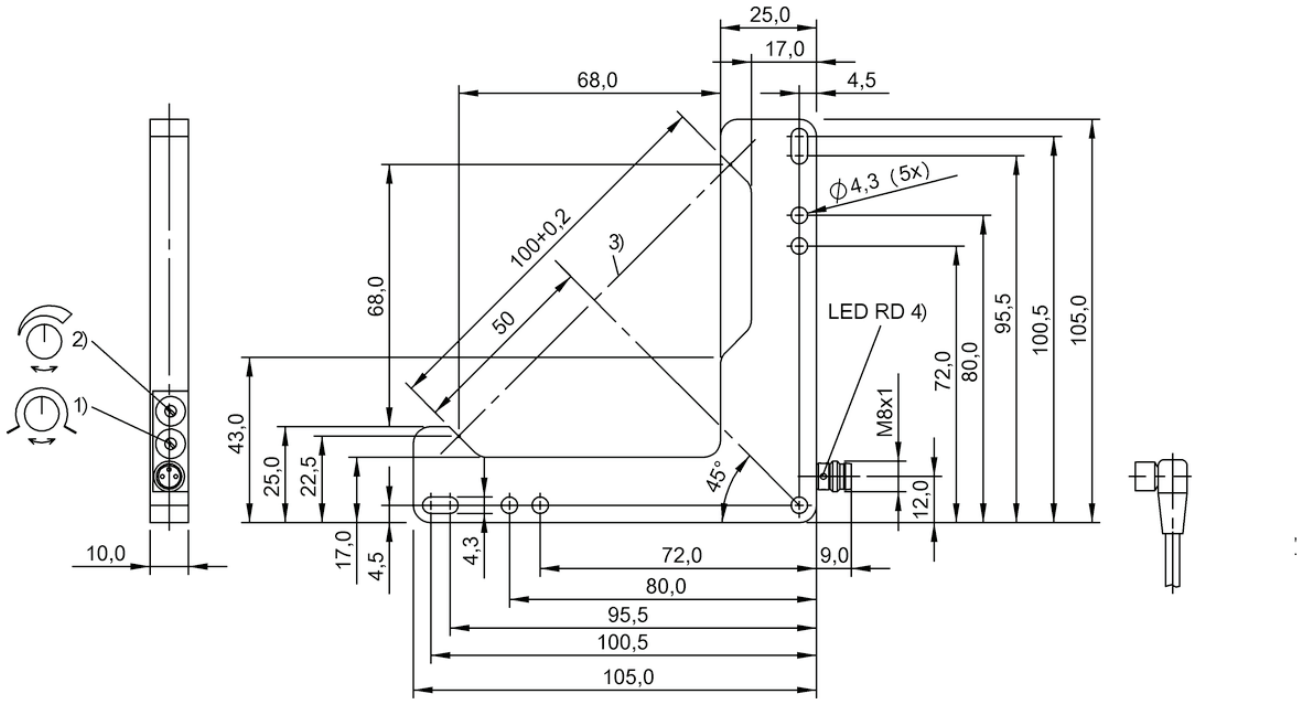
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

BWL000C, BWL000J, BWL000F



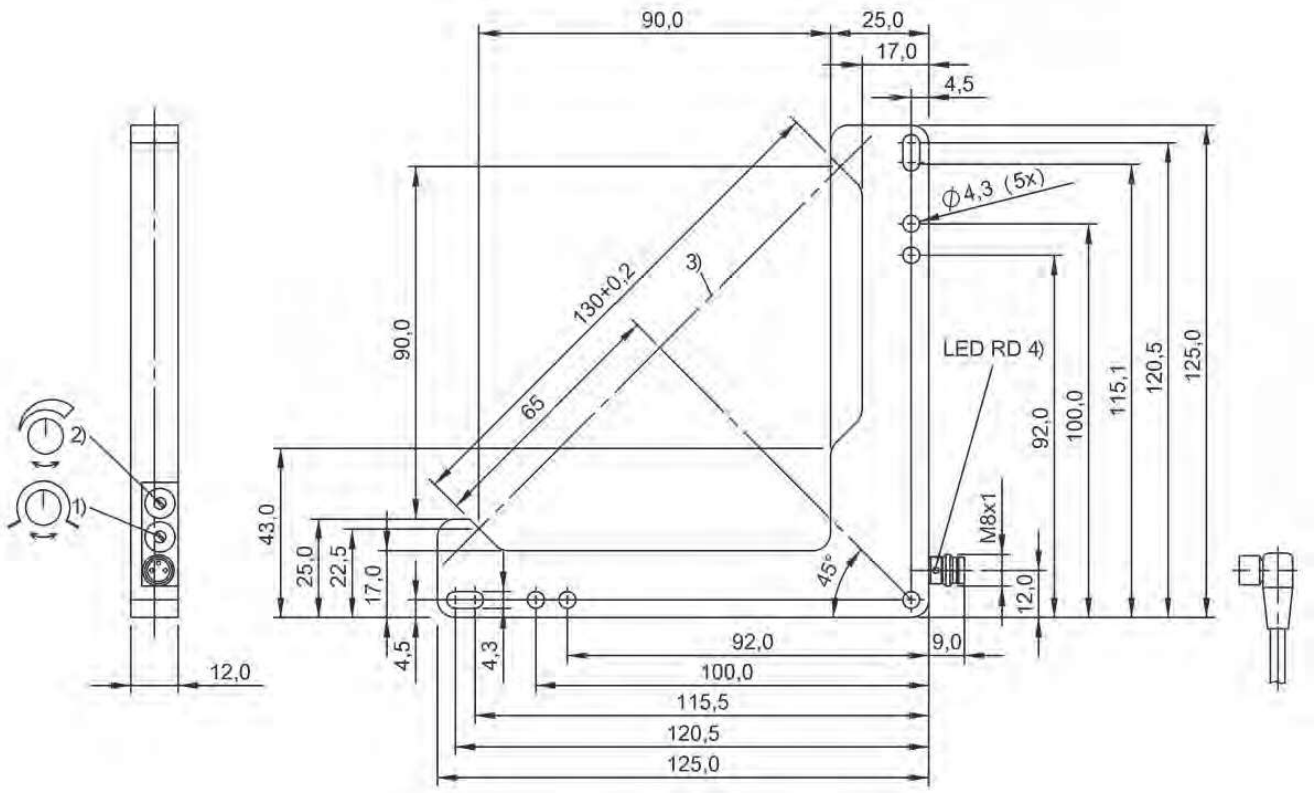
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

BWL000N, BWL000U, BWL000R



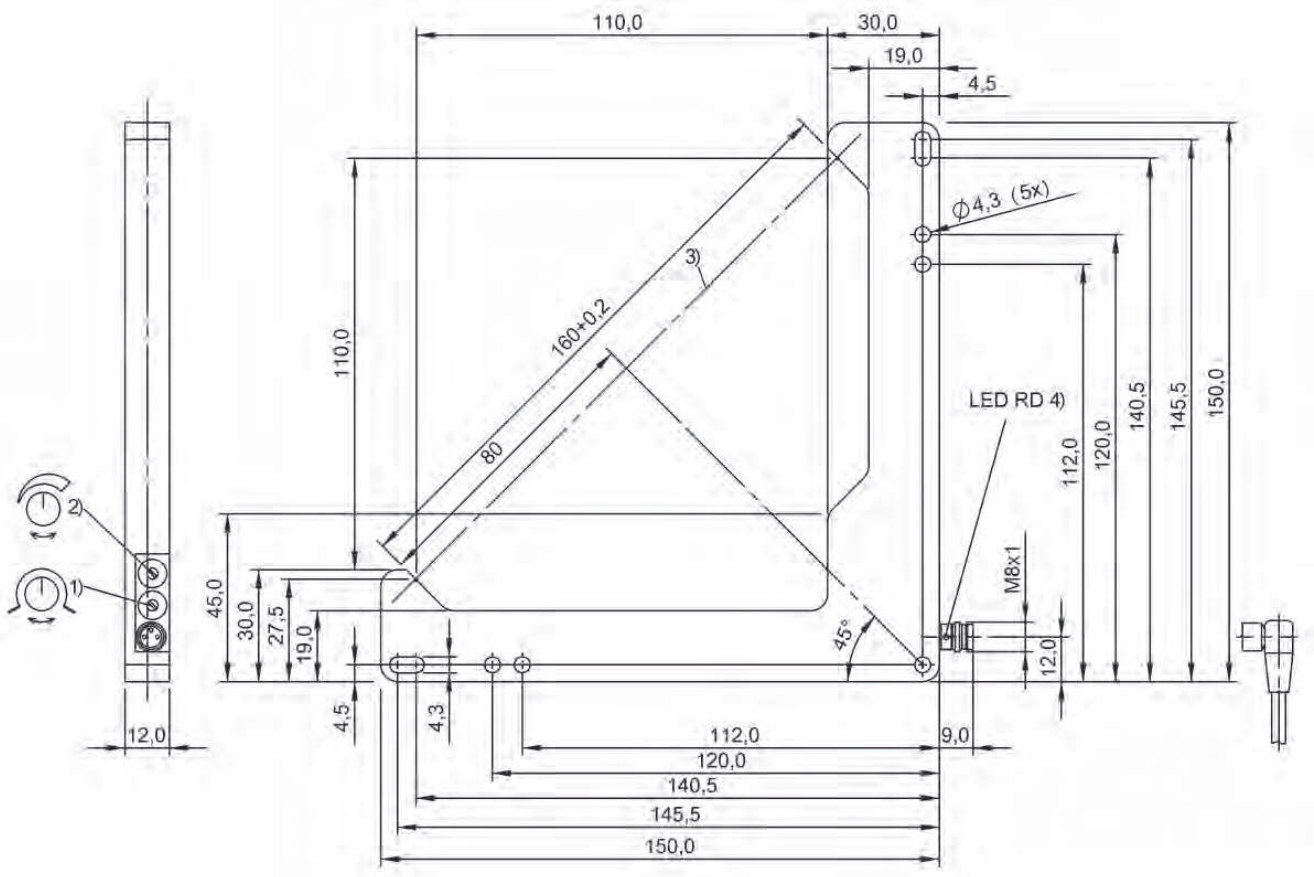
1) Light-on/dark-on, 2) Sensitivity, 3) Optical axis, 4) Output function

BWL0010, BWL001N, BWL0012



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 × 80 mm	80 × 80 mm	120 × 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 Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE	CE	CE	
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		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 × 160 mm	120 × 160 mm	160 × 160 mm	160 × 160 mm	40 × 40 mm
	Optical window sensor	Optical window sensor	Optical window sensor	Optical window sensor	Optical window sensor
	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor	Through-beam sensor
	Divergent	Divergent	Divergent	Divergent	Divergent
	Infrared	Infrared	Infrared	Infrared	Infrared
	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	Connector, M8x1 connector, 3-pin	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 × 80 mm	120 × 120 mm	160 × 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 Ub	15...30 VDC	15...30 VDC	15...30 VDC	
Approval/Conformity	CE, EAC	CE, EAC	CE, EAC	
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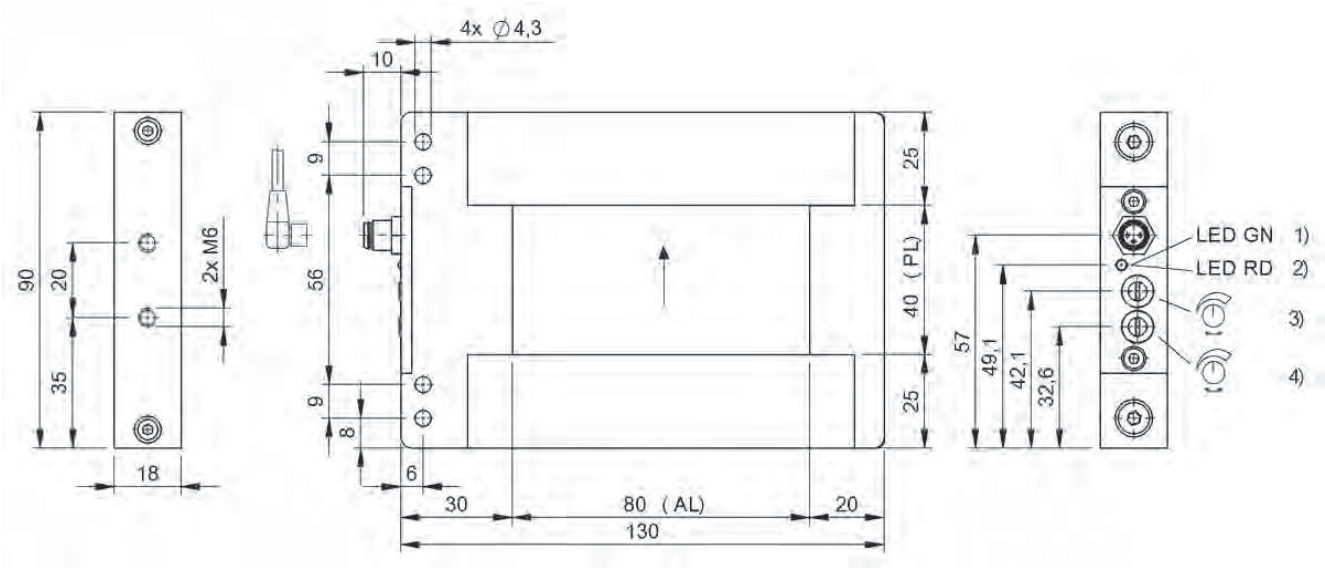
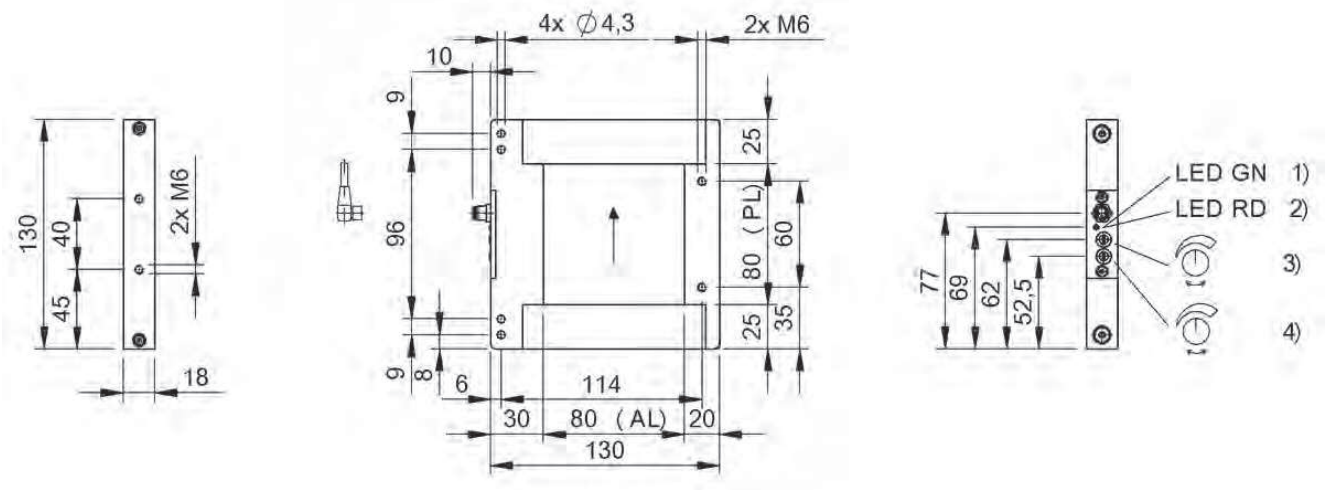
	BOW0037 BOW B-2020-DU-C-S75				
	B				
	15 x 250 x 244 mm				
	200 × 200 mm				
	Optical window sensor				
	Through-beam sensor				
	Divergent				
	Infrared				
	Connector, M8x1 connector, 4-pin				
	Aluminum				
	PMMA				
	15...30 VDC				
	CE, EAC				
	Page 496				



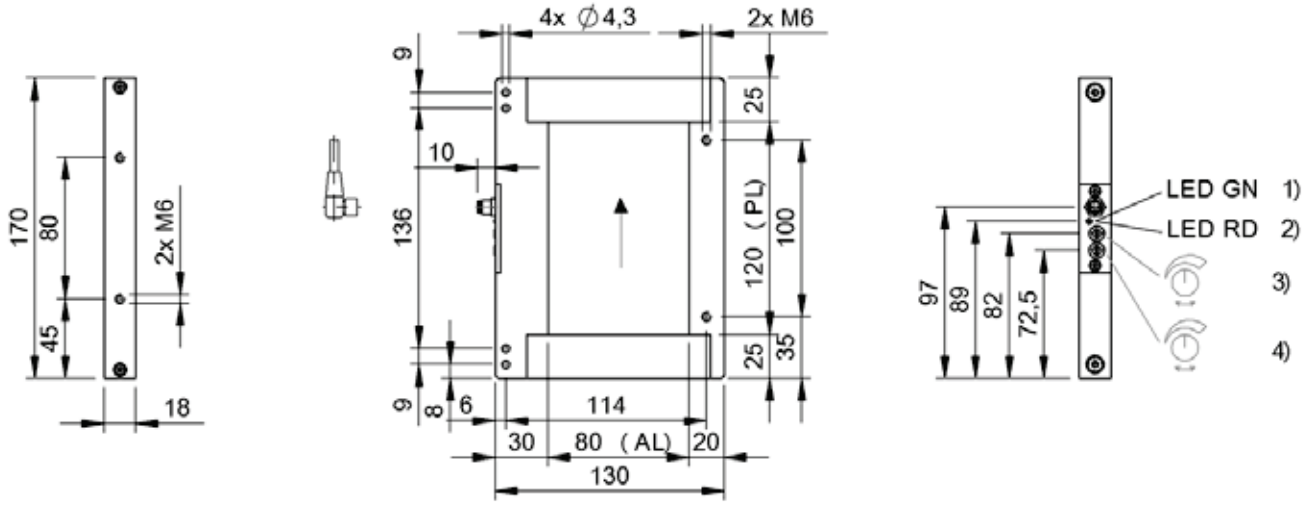
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW001A



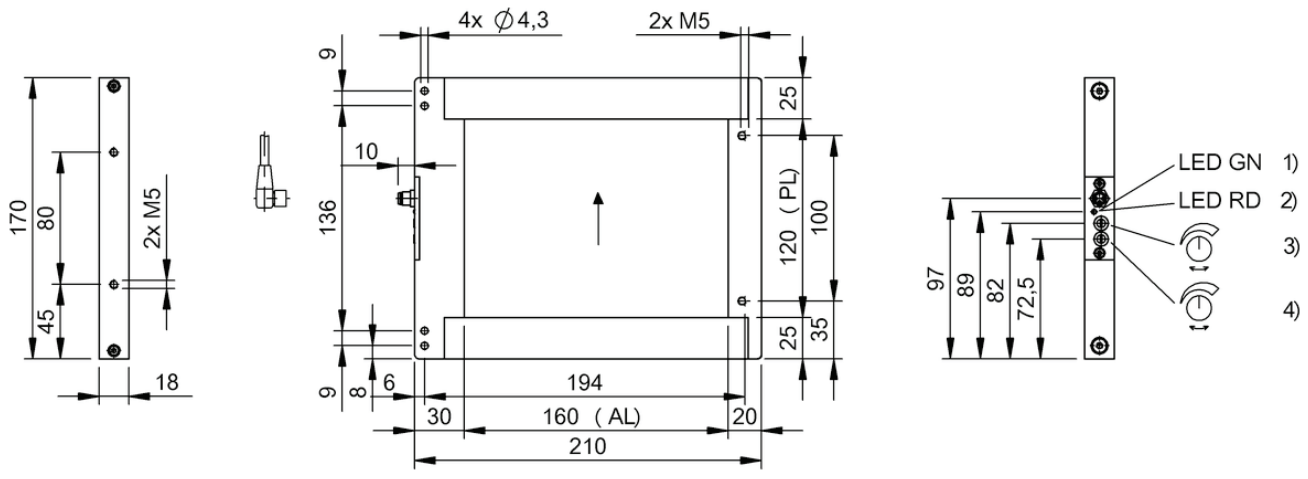
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW001J



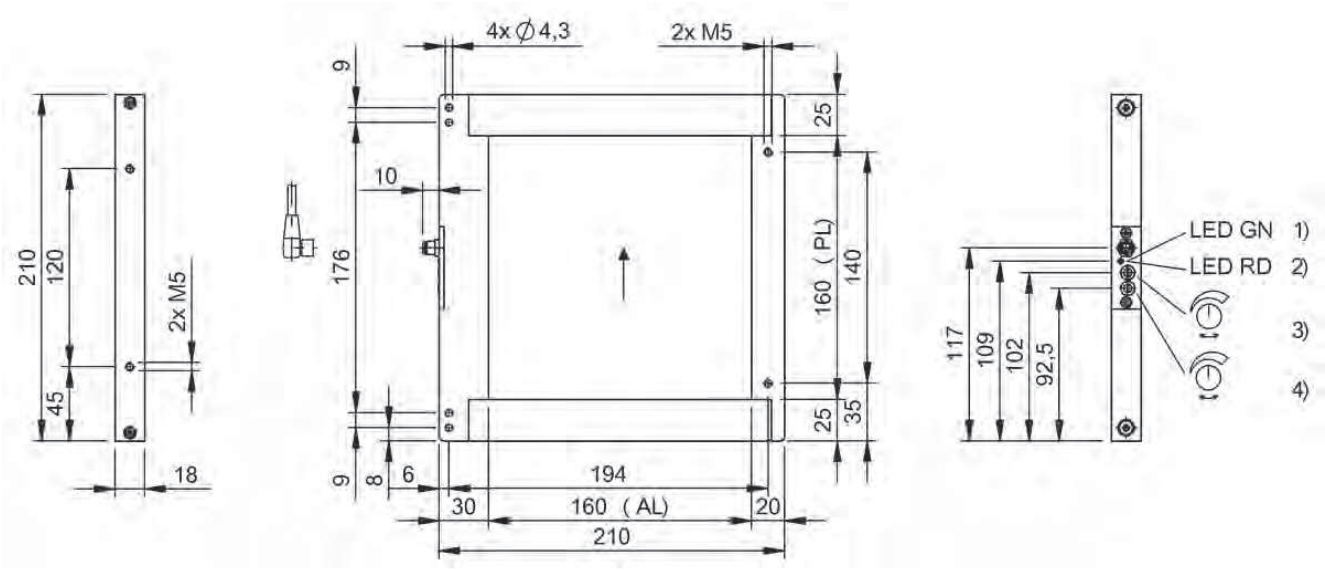
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW0012



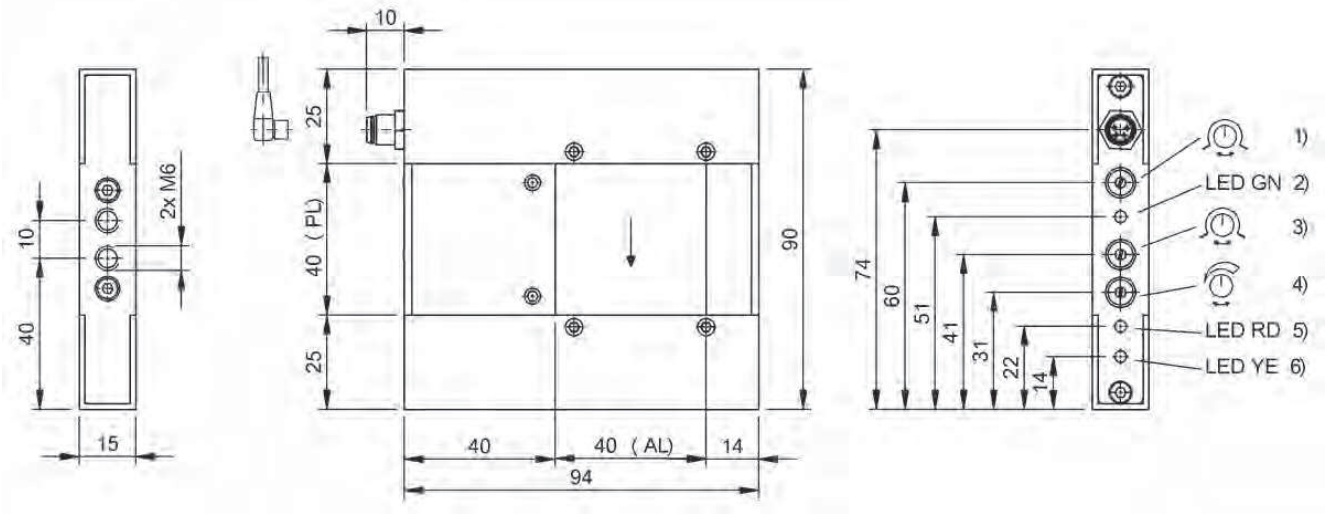
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW0029, BOW002H



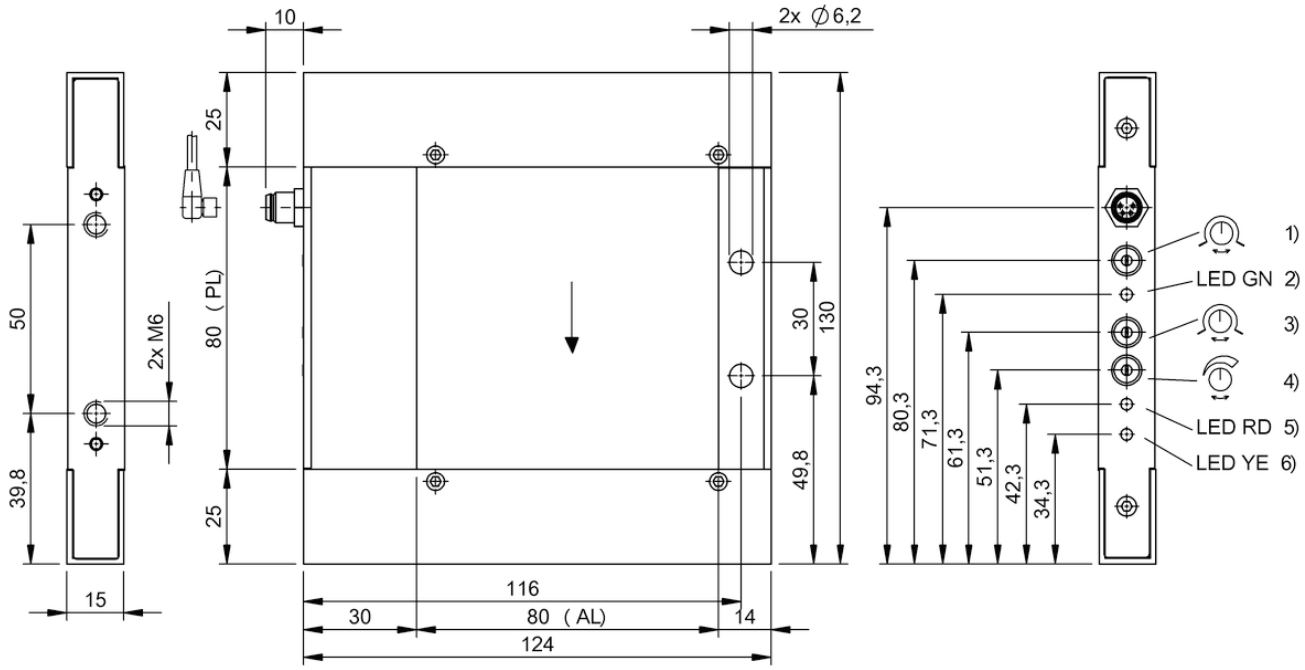
1) Power, 2) Output function, 3) Delay time, 4) Sensitivity

BOW002A, BOW002J



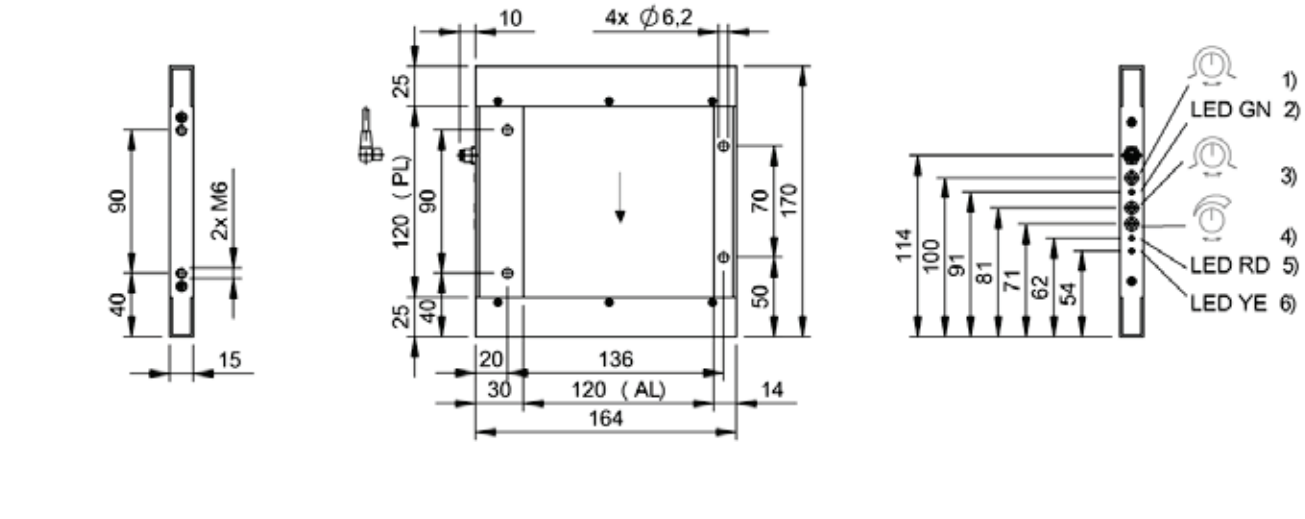
1) Pulse extender, 2) LED Power indicator, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

BOW002U



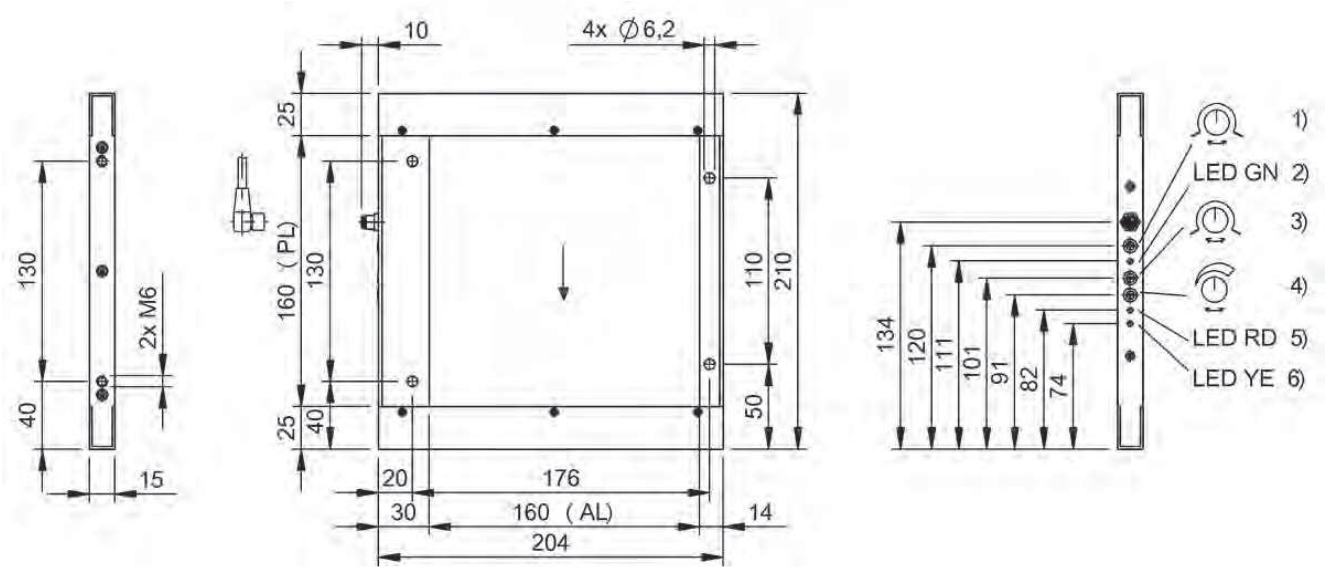
1) Pulse extender, 2) LED Power indicator, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

BOW002Y



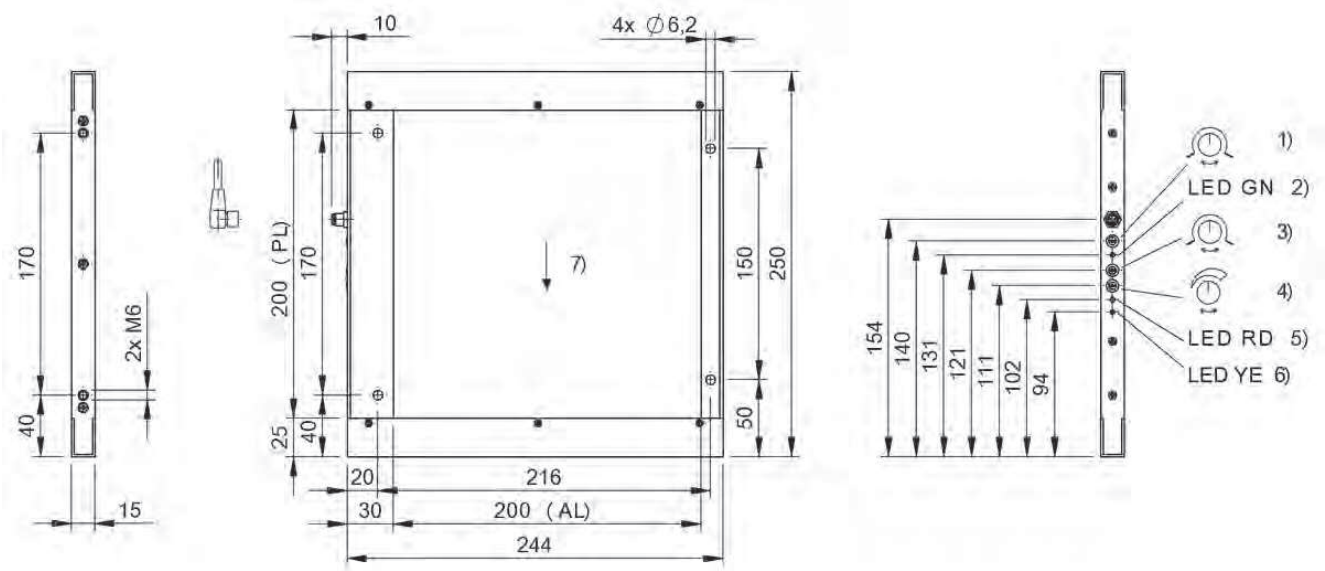
1) Pulse extender, 2) LED Power indicator, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis

BOW0031



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

BOW0034



1) Pulse extender, 2) LED Power indicator, 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 Ub	20...28 VDC	
Approval/Conformity	CE	
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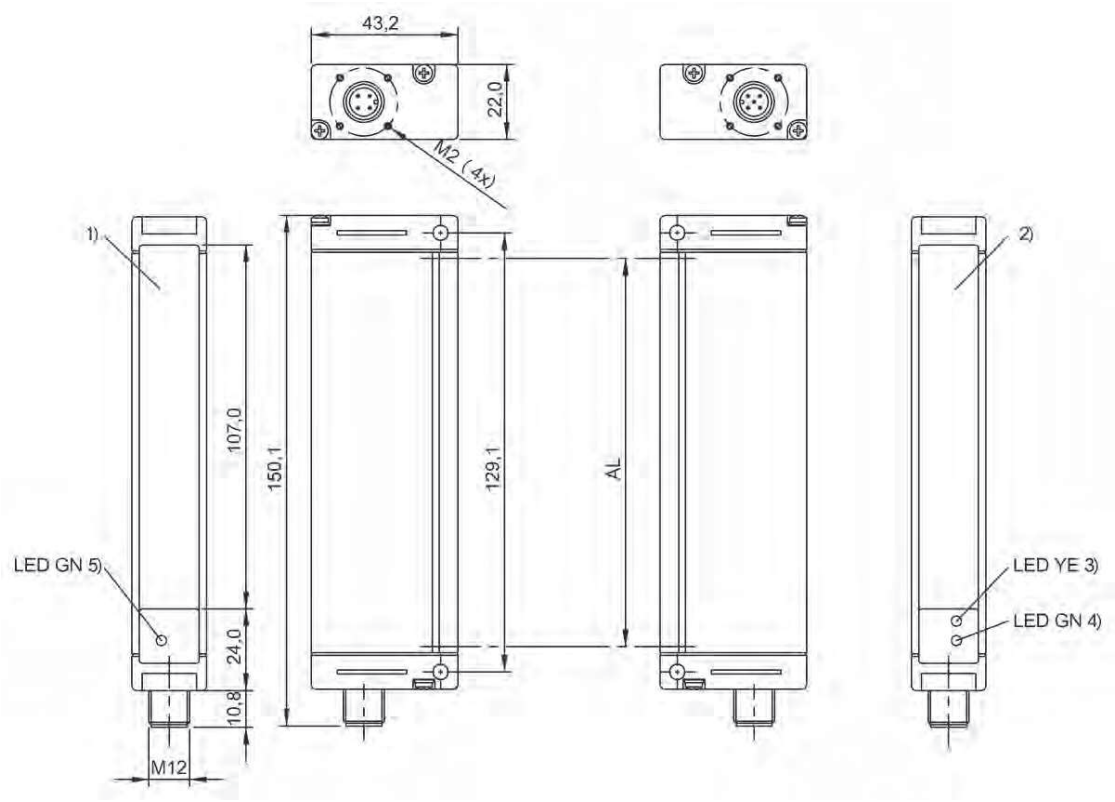
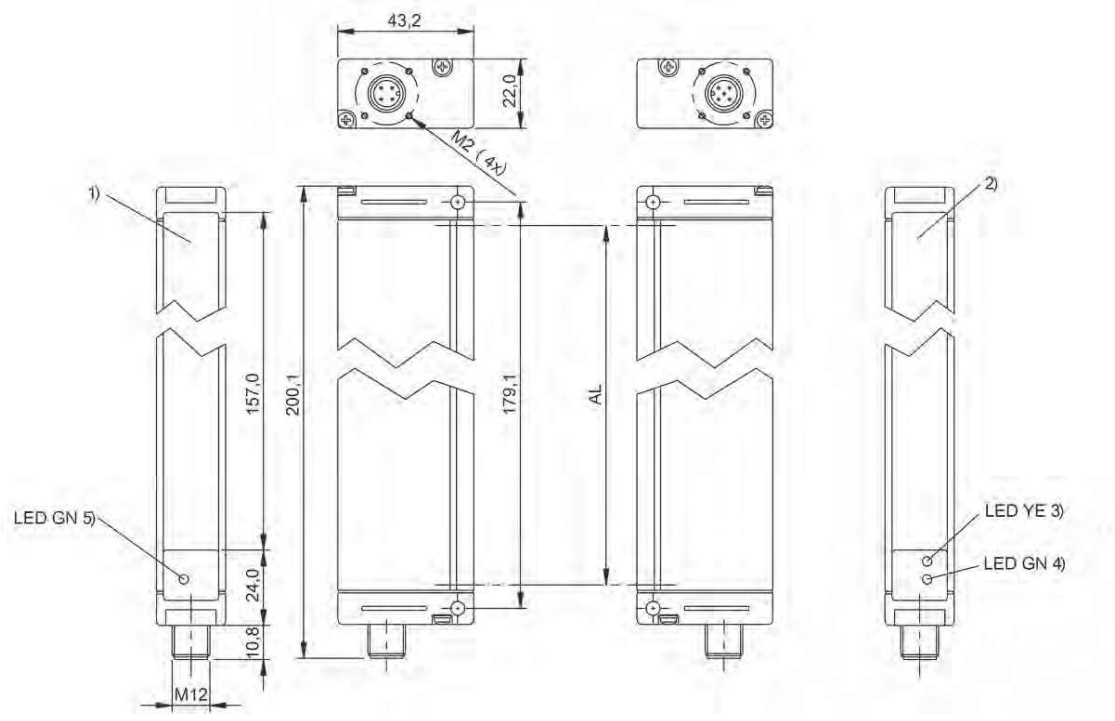
	BLG0002 BLG 1-010-210-070-PV01-SX	BLG0003 BLG 1-015-210-050-PV01-SX	BLG0005 BLG 1-030-210-070-PV01-SX
	1-010	1-015	1-030
	22 x 150.1 x 43.2 mm	22 x 200.1 x 43.2 mm	22 x 350.1 x 43.2 mm
	100 mm	150 mm	300 mm
	Analog, voltage 0…10 V PNP Normally open (NO)	Analog, voltage 0…10 V PNP Normally open (NO)	Analog, 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, R 0 = 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 500	Page 500	Page 501



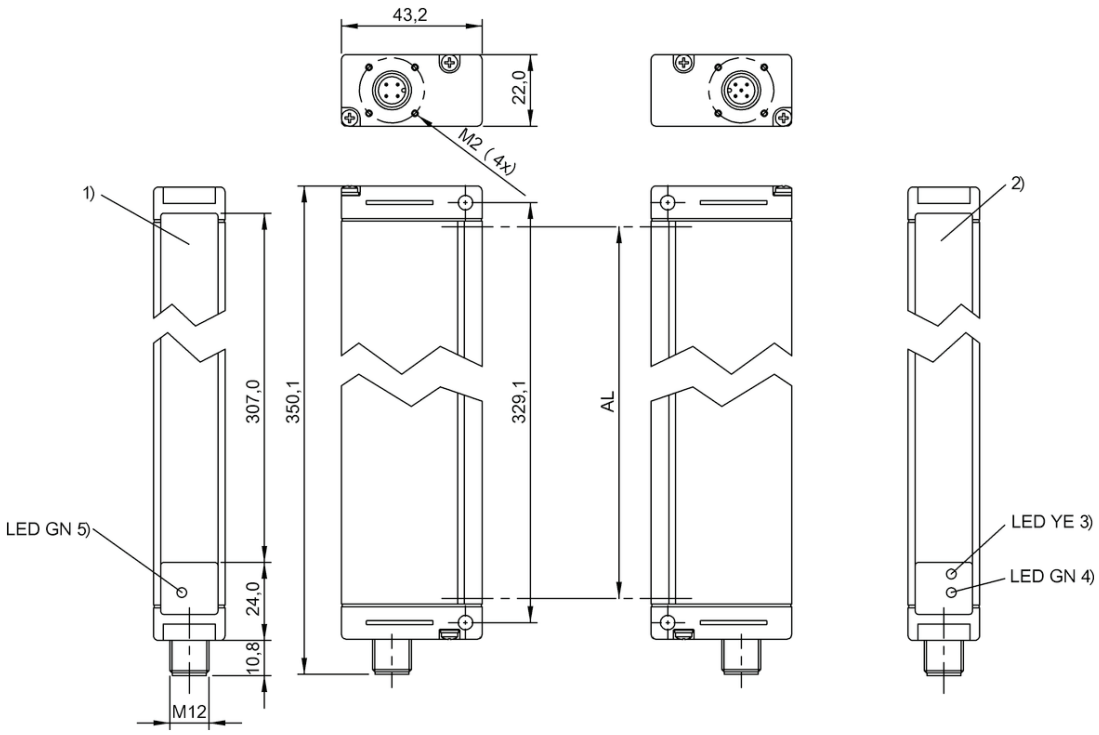
1) Sensing surface, 2) Sensing surface, 3) Output function, 4) stability/error, 5) Operating voltage

BLG0001, BLG0002



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

BLG0003

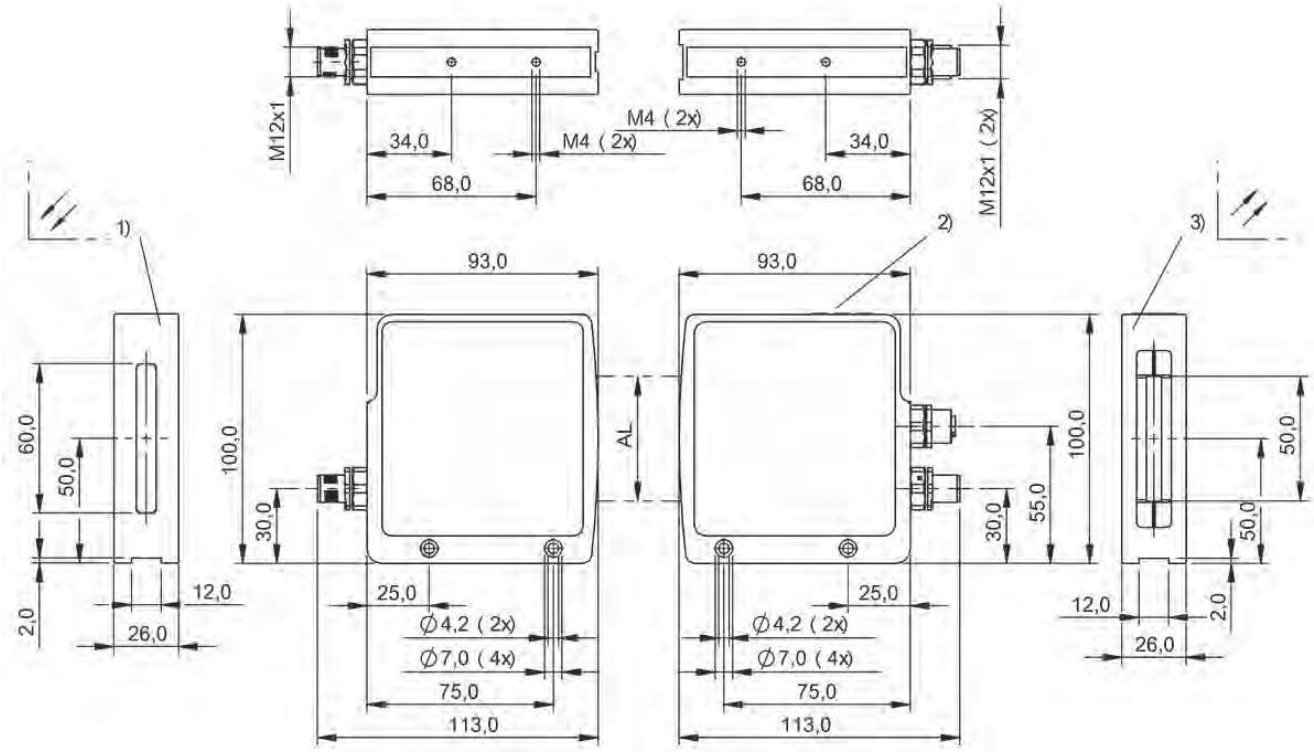


1) Sensing surface, 2) Sensing surface, 3) Output function, 4) stability/error, 5) Operating voltage

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 Ub	15...30 VDC	
Approval/Conformity	CE	
Productview	Page 504	

	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 504	

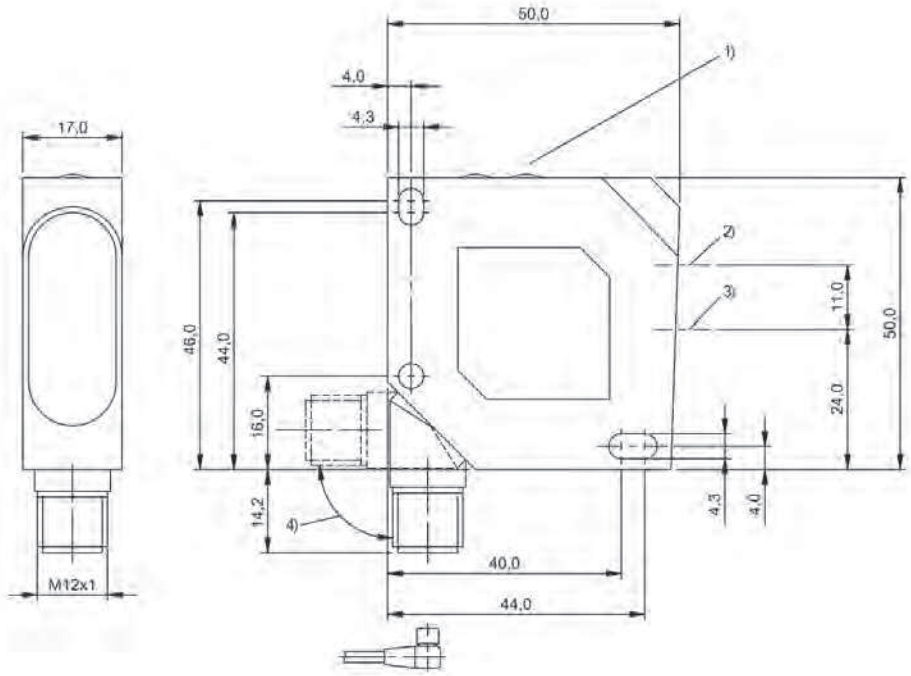


1) Emitter, 2) Display and control panel, 3) Receiver

BLA0001, BLA0003

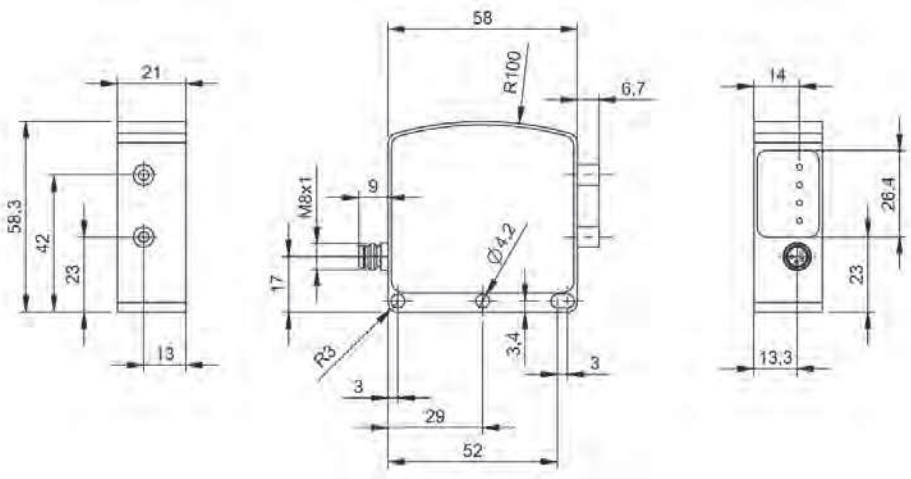
	BFS0001 BFS 26K-PS-L01-S115	
Series	26K	
Dimension	17 x 50 x 50 mm	
Interface	3x PNP normally open (NO)	
Input function	Emitter on/off, Key disable on/off, Teach color (switchpoint)	
Principle of operation	Color sensor	
Principle of optical operation	Diffuse sensor, fixed focus	
Beam characteristic	Focused	
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 Ub	12...28 VDC	
Approval/Conformity	CE, cULus, EAC	
Productview	Page 508	

	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 508	Page 509	

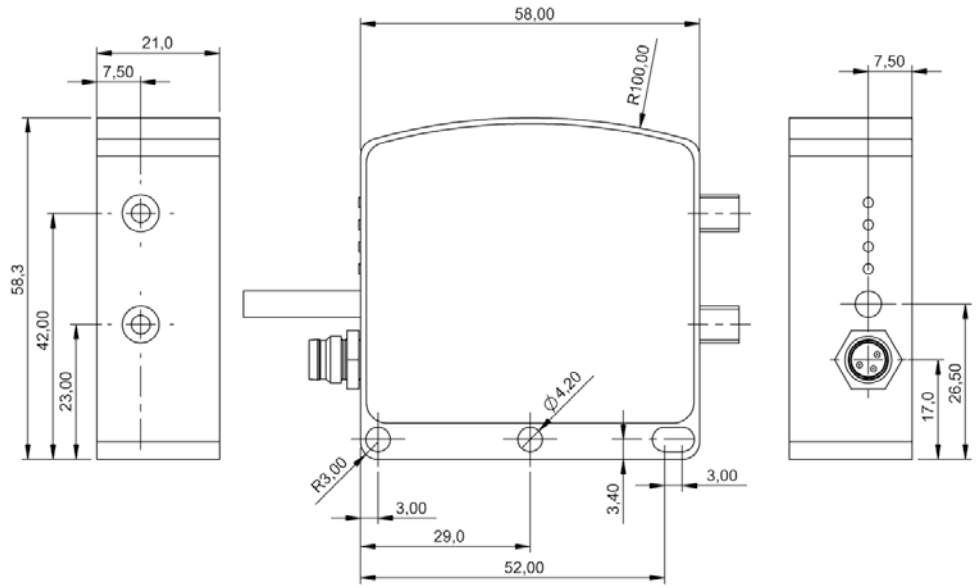


1) Display and control panel, 2) Optical axis emitter, 3) Optical axis receiver, 4) rotatable 270°

BFS0001



BFS000M


21,0
7,50
58,00
R100,00
7,50
58,3
42,00
23,00
Ø4.20
17,0
26,50
R3,00
3,00
3,40
3,00
29,0
52,00

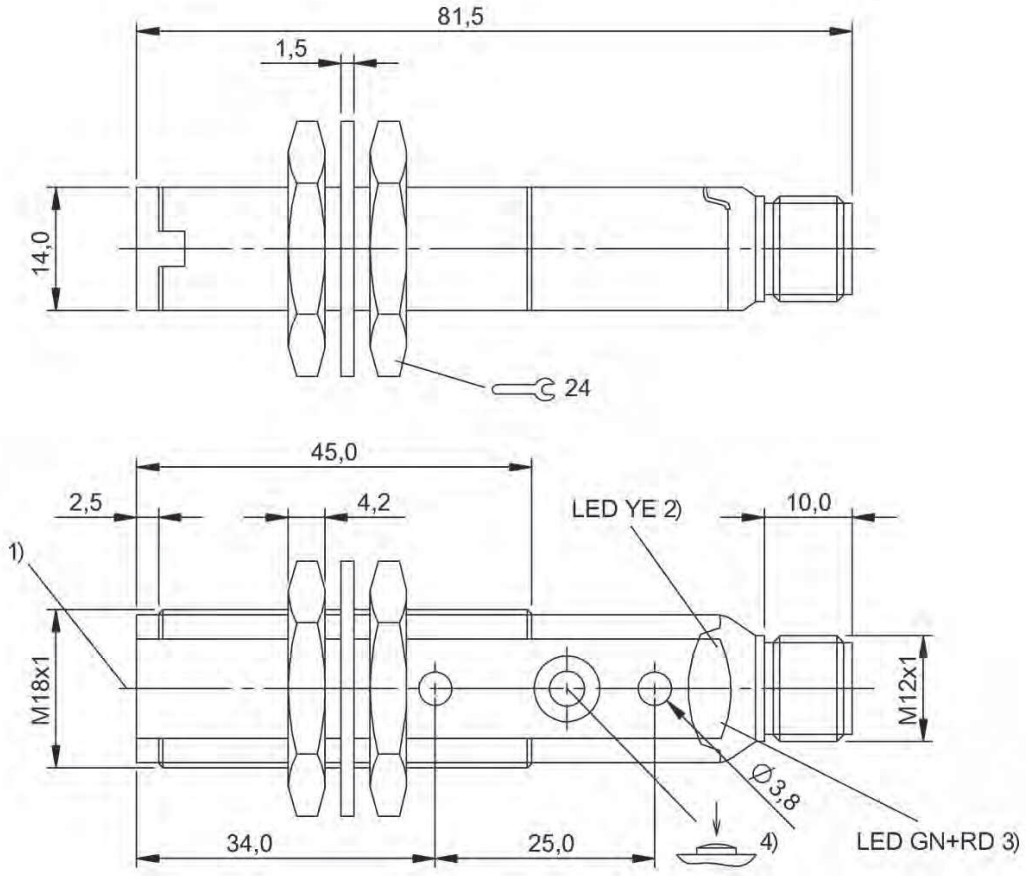
BFS000L



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 Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, cULus	cULus, CE, EAC	cULus, CE, EAC	
Productview	Page 512	Page 512	Page 513	

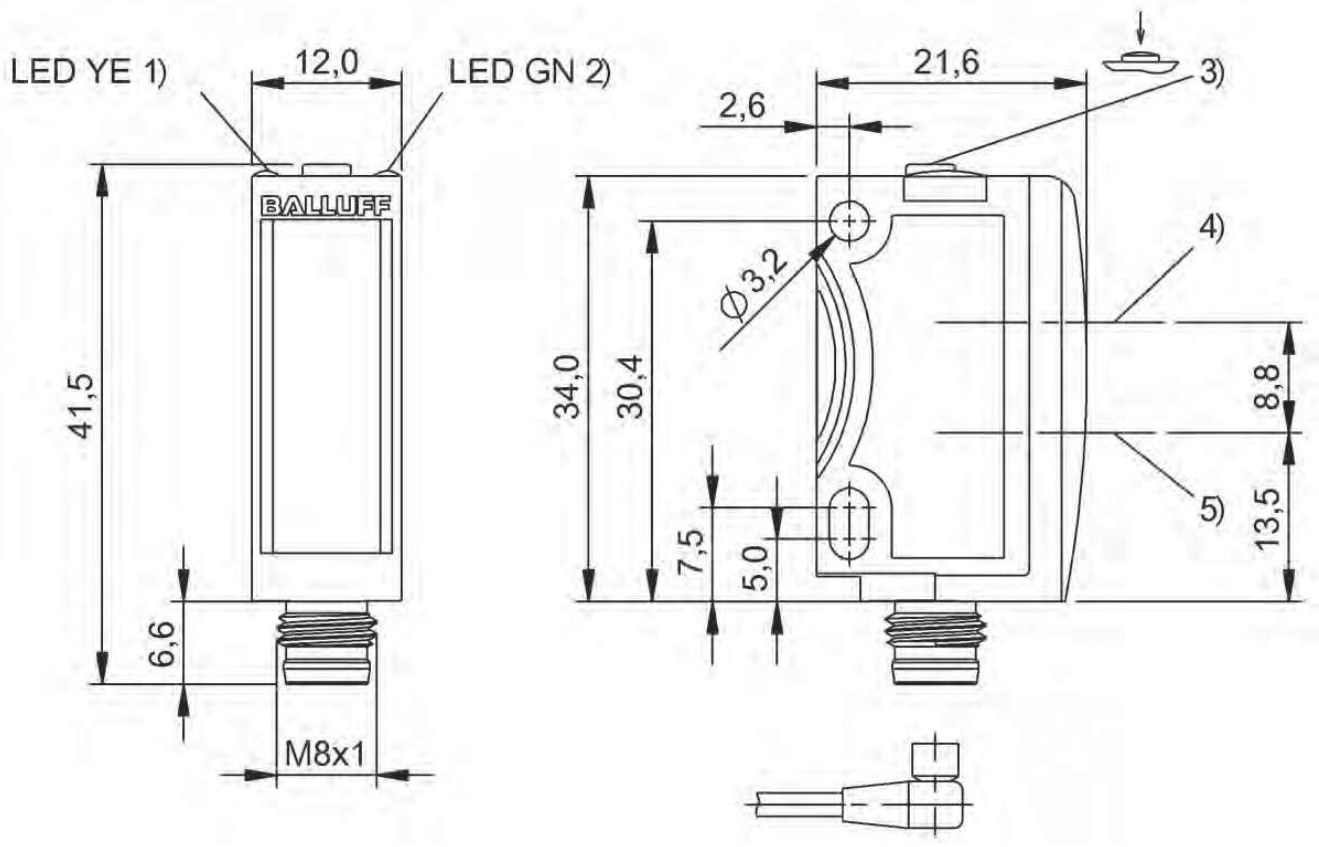



	BKT0003 BKT 67M-003-U-S92			**BKT0001** BKT 67M-001-U-S92	
		BKT0005 BKT 67M-005-U-S92	**BKT0006** BKT 67M-006-U-S92		
	67M	67M	67M	67M	
	32 x 64 x 82 mm	32 x 64 x 82 mm	32 x 64 x 82 mm	32 x 64 x 82 mm	
	Same function as SET button	Same function as SET button	Same function as SET button	Time function 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	blue light/green light/ red light	blue light/green light/ red light	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 513	Page 514	Page 514	Page 514	



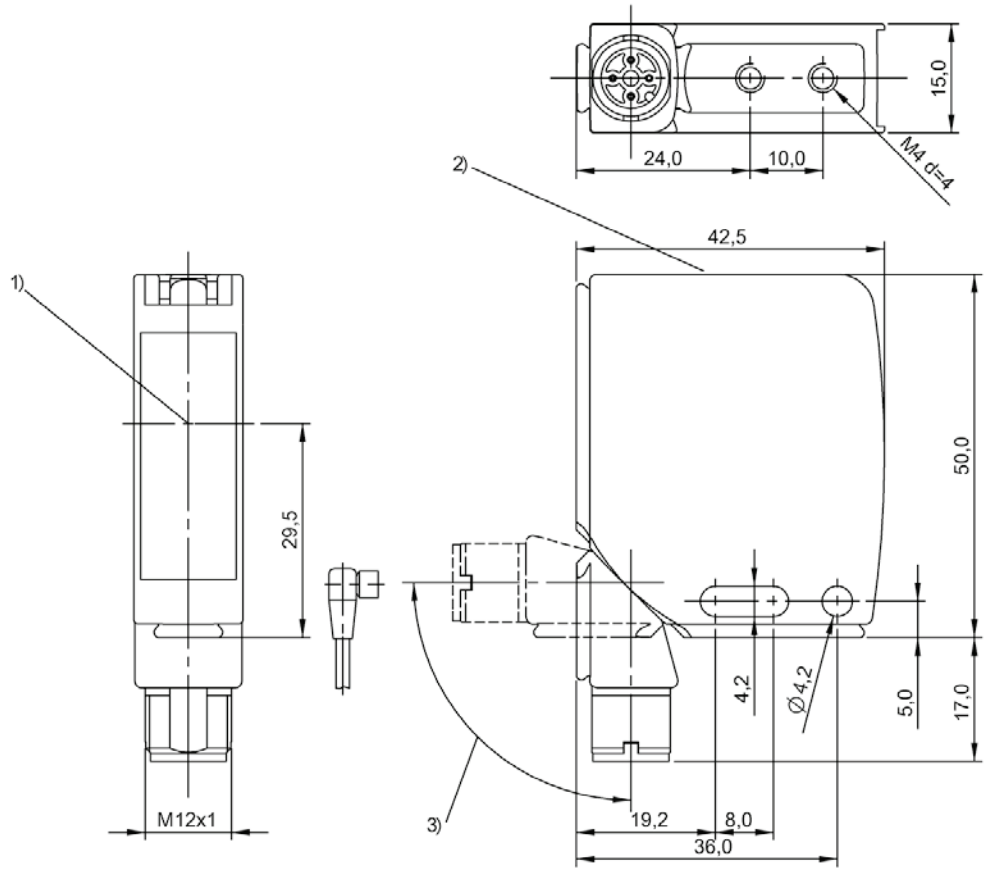
1) Optical axis, 2) Output function, 3) stability/error, 4) Sn

BKT000H



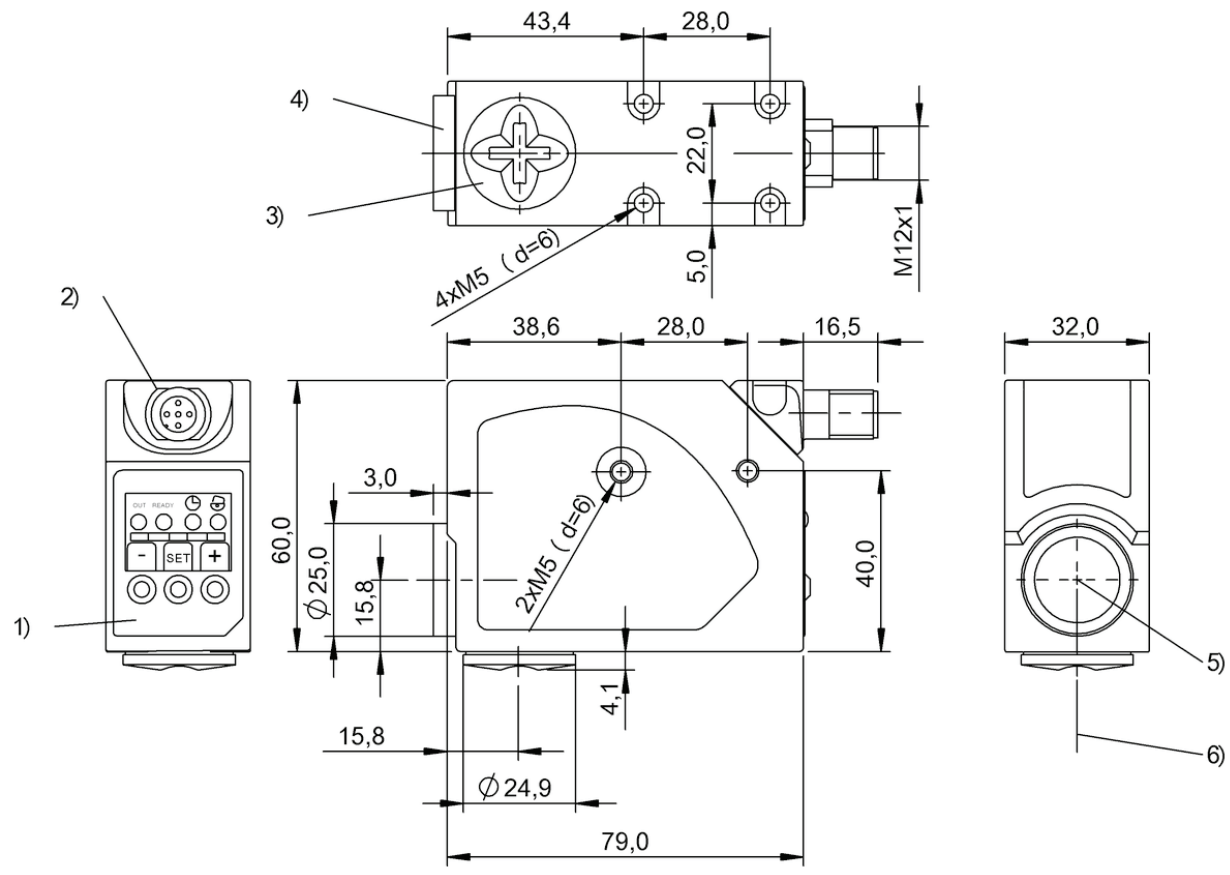
1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BKT0010



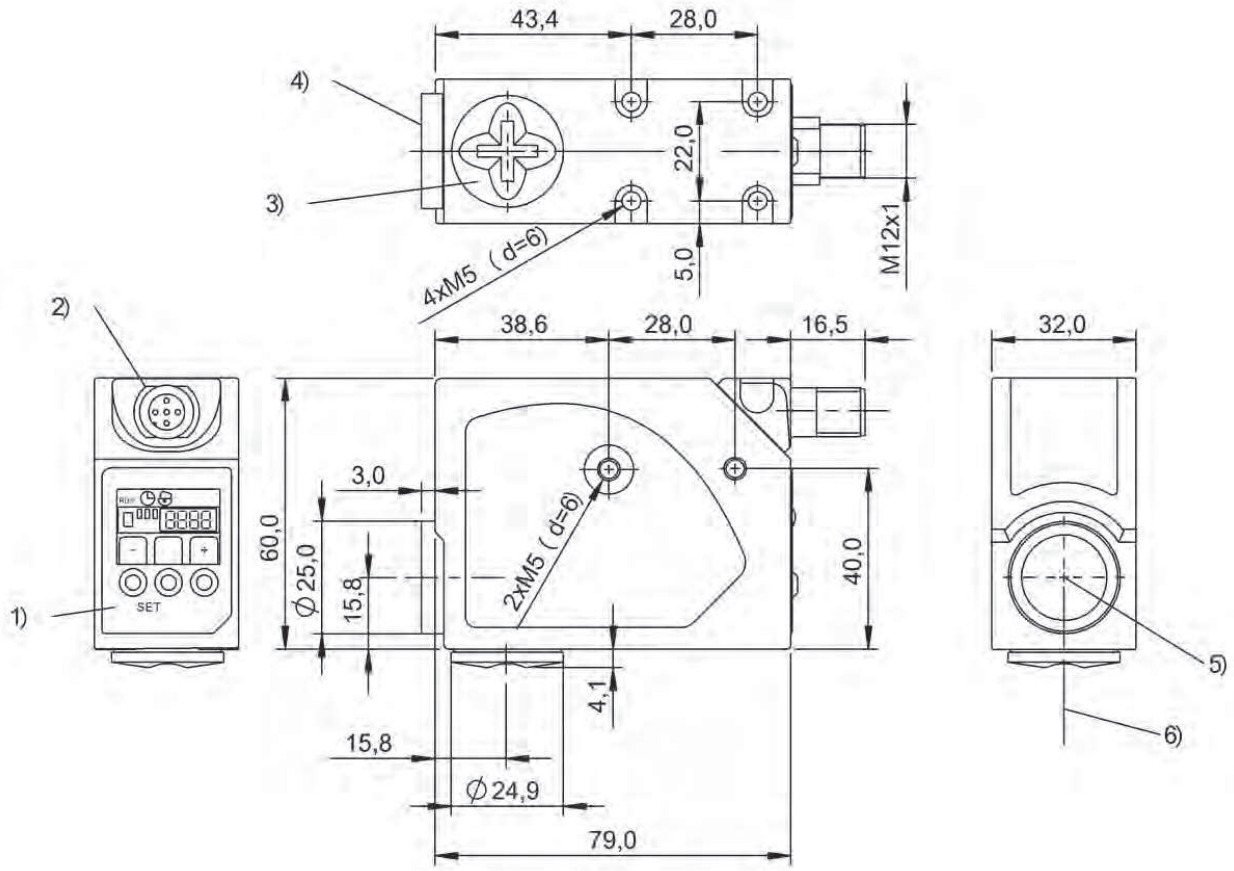
1) Optical axis, 2) Display and control panel, 3) rotatable 270°

BKT000Y



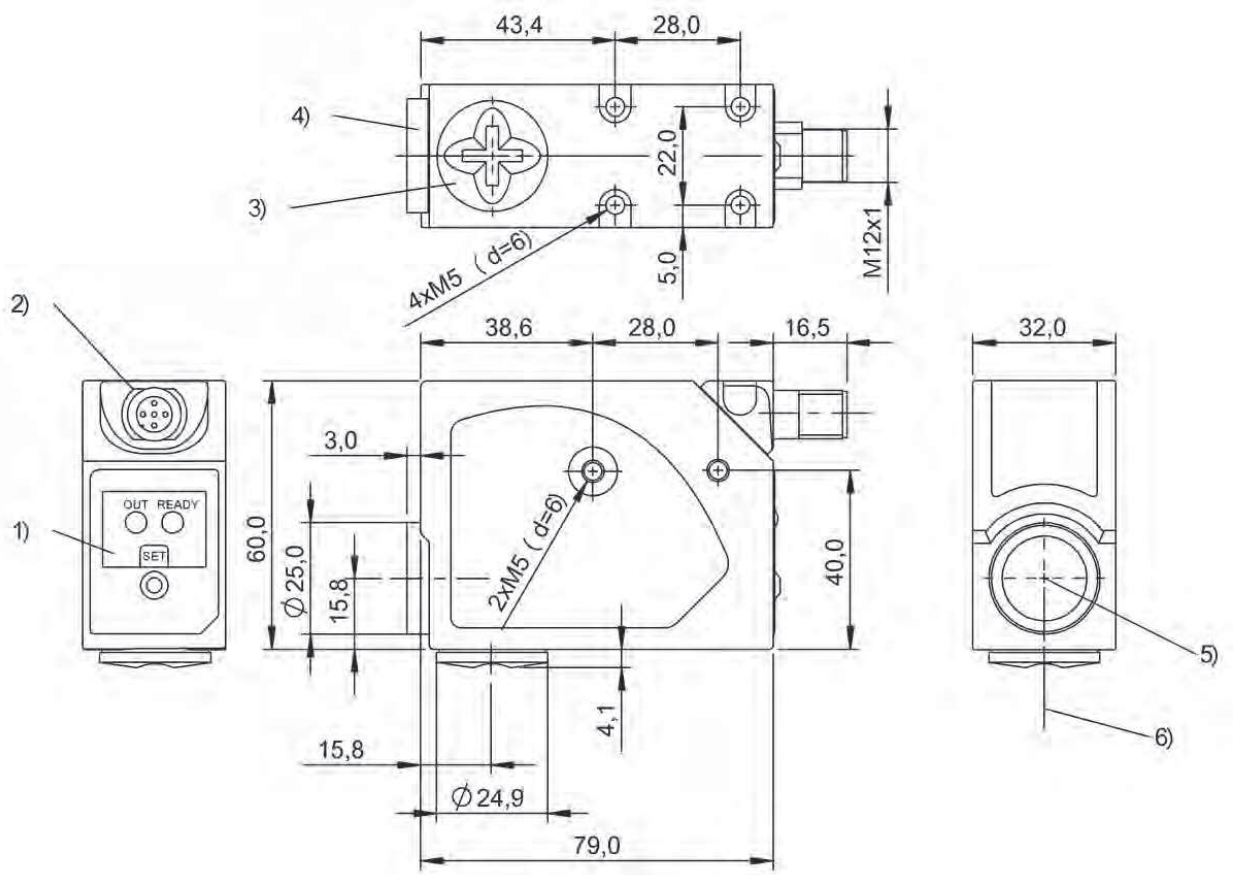
1) Display and control panel, 2) rotatable 270°, 3) Cover cap, removable, 4) standard lens, removable, 5) Light exit standard, 6) Light exit optional

BKT0003



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

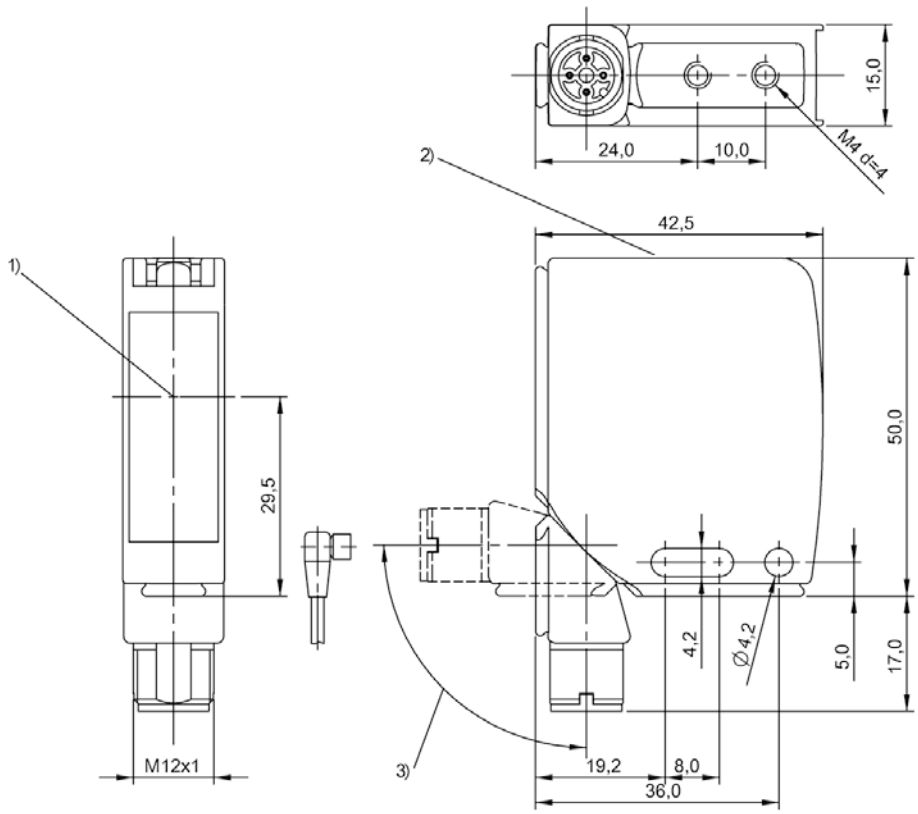
BKT0005, BKT0006



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/normally closed	**BLT0009** BLT 21M-001-P-S4
Series	21M
Dimension	12 x 50 x 42.5 mm
Input function	Key disable on/off, Teach Contrast (switching point)
Principle of operation	Luminescence sensor
Principle of optical operation	Diffuse sensor, Focused
Special optical feature	Coaxial Optics
Beam characteristic	Focused
Light type	Ultraviolet light
Light spot size	Ø 1.5 mm at 10 mm
Range	0...40 mm
Connection	Connector, M12x1 connector, 4-pin
Housing material	Zinc, die-cast Aluminum
Material sensing surface	Glass
Operating voltage Ub	10...30 VDC
Approval/Conformity	cULus, CE



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 522	Page 522	




			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
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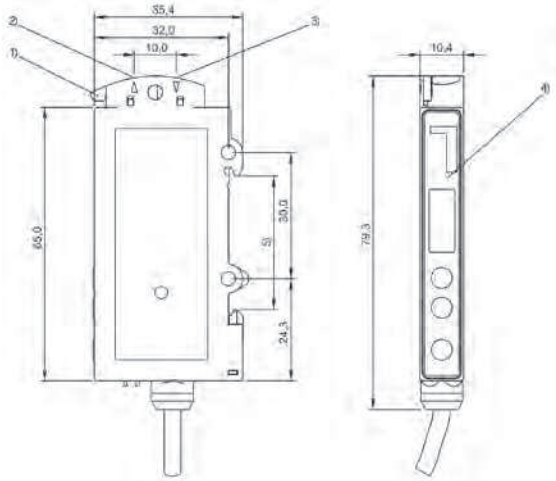
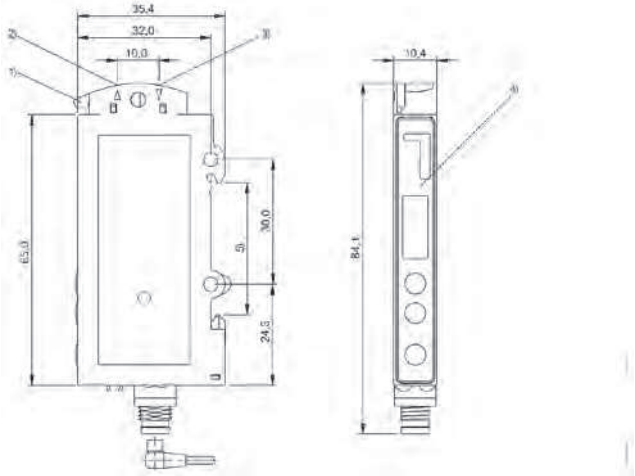
2 × PNP normally open/normally closed	**BFB0009** BFB M18M-001-P-S4	**BFB000A** BFB M18M-002-P-S4	
PNP normally open, PNP normally closed			
Series	18M	18M	
Dimension	Ø 18 x 75 mm	Ø 18 x 75 mm	
Principle of operation	Photoelectric sensor	Photoelectric sensor	
Input function	—	—	
Setting	Sensitivity (Sn)	Sensitivity (Sn)	
Operating voltage Ub	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 526	Page 526	

	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 526			



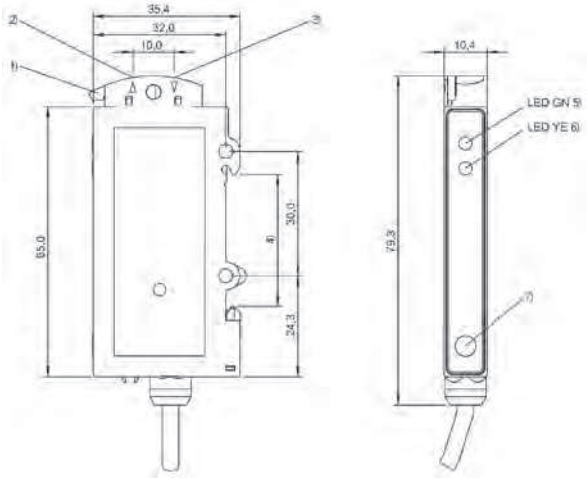
1) Fiber clamp, 2) Receiver, 3) Emitter, 4) Display and control panel, 5) For DIN rail 35mm

BFB0008



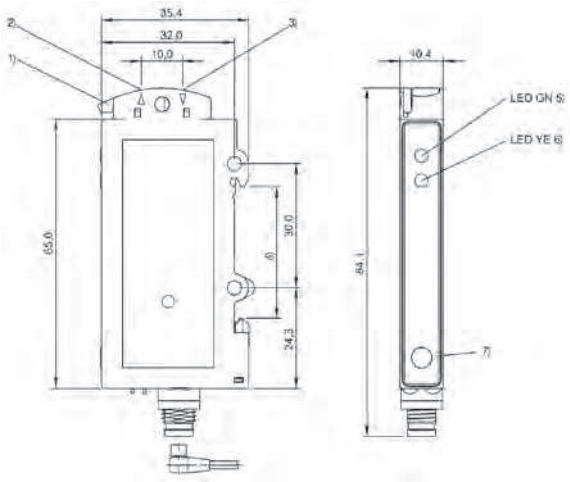
1) Fiber clamp, 2) Receiver, 3) Emitter, 4) Display and control panel, 5) For DIN rail 35mm

BFB0006



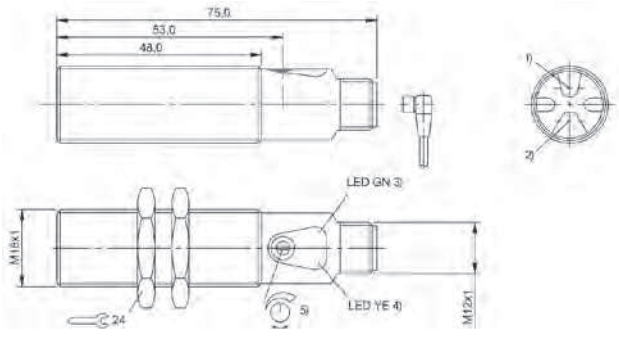
1) Fiber clamp, 2) Emitter, 3) Receiver, 4) For DIN rail 35mm, 5) stability, 6) Output function, 7) Sn

BFB0003



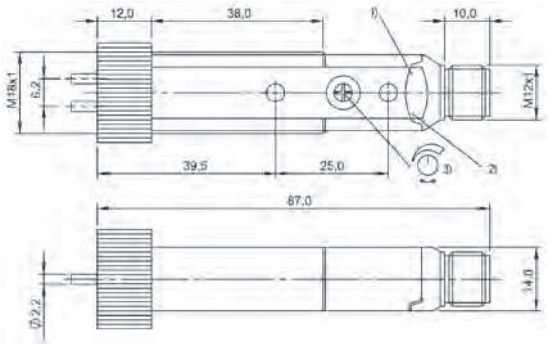
1) Fiber clamp, 2) Emitter, 3) Receiver, 4) For DIN rail 35mm, 5) stability, 6) Output function, 7) Sn

BFB0004



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

BFB000C, BFB000E, BFB0009, BFB000A



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

BOS00JJ



	BFO0000F BFO 18A-LAA-MZG-20-0,5	BFO0000H BFO 18A-LAA-MZG-20-1	BFO0000J BFO 18A-LAA-MZG-20-1,5	
Version	M5, standard	M5, standard	M5, standard	
Photoelectric sensing principle	—	—	—	
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	0.5 m	1 m	1.5 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	—	—	—	
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	
IP rating	IP50	IP50	IP50	
Productview	Page 552	Page 552	Page 552	





	BFO0000M BFO 18A-LAA-UZG-20-0,5	BFO0000N BFO 18A-LAA-UZG-20-1	BFO001Z BFO 18A-LGG-MZG-10-0,5	BFO0020 BFO 18A-LGG-MZG-10-1	BFO0023 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
	0.5 m	1 m	0.5 m	1 m	0.5 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
	–	–	–	–	–
	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
	Page 552	Page 552	Page 553	Page 553	Page 553



	BFO0024 BFO 18A-LGG-SMG-10-1	BFO0000U BFO 18A-LCC-SMG-20-0,5	BFO0000W BFO 18A-LCC-SMG-20-1	
Version	Ø 2, standard	Ø 6, standard	Ø 6, standard	
Photoelectric sensing principle	—	—	—	
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 m	0.5 m	1 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	—	—	—	
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	
IP rating	IP67	IP67	IP67	
Productview	Page 553	Page 554	Page 554	





	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 m	0.5 m	0.75 m	0.5 m	0.5 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
	–	–	–	–	–
	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
	Page 554	Page 555	Page 555	Page 555	Page 556



	BFO0001R BFO 18A-LFF-MZG-10-1	BFO0001U BFO 18A-LFF-SMG-10-0,5	BFO0001W BFO 18A-LFF-SMG-10-1	
Version	Ø 2, 90° optics	Ø 2, 90° optics	Ø 2, 90° optics	
Photoelectric sensing principle	—	—	—	
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 m	0.5 m	1 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	—	—	—	
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	
IP rating	IP50	IP67	IP67	
Productview	Page 556	Page 556	Page 556	





	BFO0013 BFO 18A-LEE-MZG-20-0,5	BFO0014 BFO 18A-LEE-MZG-20-1	BFO0019 BFO 18A-LEE-SMG-20-0,5	BFO001A BFO 18A-LEE-SMG-20-1	BFO001F 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
	0.5 m	1 m	0.5 m	1 m	0.5 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
	–	–	–	–	–
	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
	Page 557	Page 557	Page 557	Page 557	Page 558



	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	
Photoelectric sensing principle	—	—	—	
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 m	0.75 m	2 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	—	—	—	
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	
IP rating	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 m	0.5 m	1 m	0.5 m	1 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
	–	–	–	–	–
	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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	BFO000H3 BFO 18A-XAA-MZG-30-5	BFO0002F BFO 18A-XAA-SMG-30-0,5	BFO0002H BFO 18A-XAA-SMG-30-1	
Version	M5, standard	M5, standard	M5, standard	
Photoelectric sensing principle	—	—	—	
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 m	0.5 m	1 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	—	—	—	
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	
IP rating	IP50	IP67	IP67	
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	BF0002M BF0 18A-XAA-UZG-30-0,5	BF0002N BF0 18A-XAA-UZG-30-1	BF000H8 BF0 NU1-XB-05K-MZG-11-01	BF0003R BF0 18A-XAG-MZG-15-0,5	BF0003T BF0 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
	0.5 m	1 m	1 m	0.5 m	1 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
	—	—	Stainless steel (1.4305)	—	—
	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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	BFO0002U BFO 18A-XAC-SMG-30-0,5	BFO0002W BFO 18A-XAC-SMG-30-1	BFO0004M BFO 18V-XAC-MZG-30-0,5	
Version	Ø 6, standard	Ø 6, standard	Ø 6, standard	
Photoelectric sensing principle	—	—	—	
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	0.5 m	1 m	0.5 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	—	—	—	
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	
IP rating	IP67	IP67	IP50	
Productview	Page 562	Page 562	Page 562	





	BFO0004P BFO 18V-XAC-SMG-30-0,5	BFO0004R BFO 18V-XAC-SMG-30-1	BFO0003H BFO 18A-XAF-MZG-15-0,5	BFO0003J BFO 18A-XAF-MZG-15-1	BFO0003M 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
	0.5 m	1 m	0.5 m	1 m	0.5 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
	–	–	–	–	–
	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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	BFO0003N 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	
Photoelectric sensing principle	—	—	—	
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 m	0.5 m	1 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	—	—	—	
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	
IP rating	IP67	IP50	IP50	
Productview	Page 564	Page 564	Page 564	





	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
	0.5 m	1 m	0.5 m	1 m	0.5 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
	–	–	–	–	–
	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	
Photoelectric sensing principle	—	—	—	
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	0.5 m	1 m	20 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	—	—	—	
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	
IP rating	IP67	IP67	IP65	
Productview	Page 566	Page 566	Page 567	





	BFO0000C BFO N22-LA-FB-EAK-05-01	BFO0005R BFO D22-LA-RB-EAK-10-02	BFO0005M BFO D22-LA-KB-EAK-10-02	BFO0005U BFO D22-LAP-KB-EAK-15-02	BFO0005T 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	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
	1 m	2 m	2 m	2 m	2 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
	–	–	–	–	–
	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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	BF0005W BFO D22-LAT-KB-EAK-10-02	BF0005N BFO D22-LA-NB-EAK-10-02	BF00051 BFO D10-LA-CB-EAK-05-02	
Version	M4, standard, high temp.	M4, bendable tip	Ø 2, standard	
Photoelectric sensing principle	—	—	—	
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 m	2 m	2 m	
Material jacket	PE, cross-linked	PE	PE	
Range	600 mm	500 mm	130 mm	
Ambient temperature	-55...115 °C	-55...70 °C	-55...70 °C	
Material	—	—	—	
Active surface, fibers	Ø 1.0 mm	Ø 1.0 mm	Ø 0.5 mm	
Active surface, fiber arrangement	Single fiber	Single fiber	Single fiber	
IP rating	IP65	IP65	IP65	
Productview	Page 570	Page 570	Page 571	





	BF000AY BFO D22-LAT-YB-EAK-10-0,5	BF0005P BFO D22-LA-QB-PAK-05-02	BF000H6 BFO D22-LAH-JD-EAK-10-02	BF00056 BFO D13-LA-QB-EAK-05-02	BF000AW BFO D22-LAH-BK-EAK-10-02
	Ø 3, 90° optics, high temperature	Ø 3, thin point, 90° optics	Ø 3, thin point, 90° optics	Ø 3, thin point, 90° optics	M4, 90° conn., flex. 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-..
	PC	PMMA	PMMA	PMMA	PMMA
	0.5 m	2 m	2 m	2 m	2 m
	PE, cross-linked	PVC	PE	PE	PE
	600 mm	120 mm	300 mm	110 mm	250 mm
	-55...115 °C	-40...70 °C	-40...70 °C	-30...70 °C	-40...70 °C
	—	—	Brass nickel plated	—	—
	Ø 1.0 mm	Ø 1.0 mm	Ø 1.0 mm	Ø 0.5 mm	Ø 1.0 mm
	Single fiber	Single fiber	Single fiber	Single fiber	Single fiber
	IP65	IP65	IP65	IP65	IP65
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	BFO00C8 BFO D25 LA-HD-EAK-465-02	BFO00C6 BFO D10-LAH-CK-EAK-05-02	BFO00C7 BFO D10-LAH-DK-EAK-05-02	
Version	0.25x46.5, 90°-light grid	0.5 mm, 90°	0.5 mm, 90°	
Photoelectric sensing principle	—	—	—	
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 m	2 m	2 m	
Material jacket	PE	PE	PE	
Range	550 mm	55 mm	50 mm	
Ambient temperature	-55...70 °C	-40...70 °C	-40...70 °C	
Material	—	—	—	
Active surface, fibers	Ø 0.25 mm (32x)	Ø 0.5 mm	Ø 0.5 mm	
Active surface, fiber arrangement	Row	Single fiber	Single fiber	
IP rating	IP65	IP65	IP65	
Productview	Page 574	Page 574	Page 575	





	BFO00AP BFO D22-LA-GD-EAK-52-02	BFO00067 BFO D25-LA-CD-EAK-110-02	BFO00C5 BFO D25-LA-ED-EAK-250-0,5	BFO00068 BFO D25-LA-ED-EAK-250-02	BFO005K BFO D22-LA-BD-EAK-52-02
	5x10, light grid	6x19, light grid	0.25x24.8, 90°-light grid	5.5x38, 90°-light grid	5x15, 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 m	2 m	0.5 m	2 m	2 m
	PE	PE	PE	PE	PE
	500 mm	600 mm	550 mm	550 mm	400 mm
	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C
	–	–	–	–	–
	Ø 0.25 mm (16x)	Ø 0.25 mm (32x)	Ø 0.25 mm (32x)	Ø 0.25 mm (32x)	Ø 0.25 mm (16x)
	Row	Row	Row	Row	Row
	IP65	IP65	IP65	IP65	IP65
	Page 575	Page 576	Page 576	Page 577	Page 577



	BF00059 BFO D13-LG-10-EAK-30-02	BF00058 BFO D13-LG-05-EAK-30-02	BF0005E BFO D13-XB-RB-EAK-10-02	
Version	Fork, coaxial optics	Fork, coaxial optics	M3, coaxial optics	
Photoelectric sensing principle	—	—	—	
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 m	2 m	2 m	
Material jacket	PE	PE	PE	
Range	10 mm	5 mm	60 mm	
Ambient temperature	-55...70 °C	-55...70 °C	-55...70 °C	
Material	—	—	—	
Active surface, fibers	Ø 0.25 mm (2x)	Ø 0.25 mm (2x)	Ø 0.5 mm, Ø 0.25 mm (10x)	
Active surface, fiber arrangement	opposing	opposing	Ring around individual fiber	
IP rating	IP65	IP65	IP65	
Productview	Page 578	Page 578	Page 579	





	BF00054 BF0 D10-XA-RB-EAK-10-02	BF000C3 BF0 D10-XA-VB-EAK-10-02	BF00052 BF0 D10-XA-GB-EAK-10-02	BF0005C BF0 D13-XB-KB-EAK-10-02	BF00006 BF0 D22-XB-UB-EAK-15-02
	M3, standard	M3, standard	M3, bendable tip	M4, coaxial optics	M4, 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-..	BFB 75K-001-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	2 m	2 m	2 m	2 m	2 m
	PE	PE	PE	PE	PE
	50 mm	50 mm	50 mm	60 mm	130 mm
	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C	-40...60 °C
	—	—	—	—	—
	Ø 0.5 mm (2x)	Ø 0.5 mm (2x)	Ø 0.5 mm (2x)	Ø 0.5 mm, Ø 0.25 mm (10x)	Ø 0.25 mm (16x), Ø 1.0 mm
	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
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	BF000C9 BFO D22-XB-UB-EAK-15-SA1-02	BF00055 BFO D10-XAH-KB-EAK-10-02	BF00005 BFO D22-XA-UB-EAK-20-02	
Version	M4, coaxial optics	M4, standard	M4, standard	
Photoelectric sensing principle	—	—	—	
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-..	BFB 75K-001-..	BFB 75K-001-..	
Fiber type material	PMMA	PMMA	PMMA	
Cable length L	2 m	2 m	2 m	
Material jacket	PE	PE	PE	
Range	130 mm	50 mm	150 mm	
Ambient temperature	-40...60 °C	-40...70 °C	-55...70 °C	
Material	—	—	—	
Active surface, fibers	Ø 0.25 mm (16x), Ø 1.0 mm	Ø 0.5 mm (2x)	Ø 1.0 mm (2x)	
Active surface, fiber arrangement	Ring around individual fiber	Adjacent to one another	Adjacent to one another	
IP rating	IP65	IP65	IP65	
Productview	Page 582	Page 582	Page 583	





	BF00053 BF0 D10-XA-HB-EAK-10-02	BF00066 BF0 D22-XB-LB-EAK-15-02	BF000H4 BF0 D22-XB-LB-EAK-15-SA1-0,5	BF000FP BF0 D22-XB-LB-EAK-15-SA1-01	BF000C4 BF0 D22-XB-LB-EAK-15-SA1-02
	M4, bendable tip	M6, coaxial optics	M6, coaxial optics	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-..	BFS 33M-GSS-..	BFS 33M-GSS-..	BFS 33M-GSS-..
	PMMA	PMMA	PMMA	PMMA	PMMA
	2 m	2 m	0.5 m	1 m	2 m
	PE	PE	PE	PE	PE
	50 mm	120 mm	80 mm	80 mm	80 mm
	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C	-55...70 °C
	—	—	Stainless steel (1.4305)	—	—
	Ø 0.5 mm (2x)	Ø 1.0 mm, Ø 0.25 mm (16x)	Ø 1.0 mm, Ø 0.25 mm (16x)	Ø 0.25 mm (16x), Ø 1.0 mm	Ø 1.0 mm, Ø 0.25 mm (16x)
	Adjacent to one another	Ring around individual fiber	Ring around individual fiber	Ring around individual fiber	Ring around individual fiber
	IP65	IP65	IP65	IP65	IP65
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	BF000FN BFO D22-XB-LB-EAK-15-SA1-05	BF00007 BFO D22-XBF-LB-EAK-15-02	BF000H5 BFO D22-XA-08B-EAK-26-02	
Version	M6, coaxial optics	M6, coax. optics, flex. cable	M6, standard	
Photoelectric sensing principle	—	—	—	
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-..	BFB 75K-001-..	BFB 75K-001-..	
Fiber type material	PMMA	PMMA	PMMA	
Cable length L	5 m	2 m	2 m	
Material jacket	PE	PE	PE	
Range	80 mm	110 mm	180 mm	
Ambient temperature	-55...70 °C	-40...60 °C	-55...70 °C	
Material	—	—	Brass nickel plated	
Active surface, fibers	Ø 0.25 mm (16x), Ø 1.0 mm	Ø 1.0 mm, Ø 0.25 mm (16x)	Ø 1.0 mm (2x)	
Active surface, fiber arrangement	Ring around individual fiber	Ring around individual fiber	Adjacent to one another	
IP rating	IP65	IP65	IP65	
Productview	Page 584	Page 585	Page 585	





	BF00064 BF0 D22-XAP-LB-EAK-30-02	BF00003 BF0 D22-XA-DB-EAK-20-01	BF00063 BF0 D22-XAH-LB-EAK-20-02	BF00065 BF0 D22-XAT-LB-EAK-20-02	BF00004 BF0 D22-XA-SB-EAK-20-02
	M6, standard	M6, standard	M6, standard, flexible cable	M6, standard, high temp.	M6, thin tip, 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 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..
	PMMA	PMMA	PMMA	PC	PMMA
	2 m	1 m	2 m	2 m	2 m
	PE	PE	PE	PE, cross-linked	PE
	180 mm	140 mm	120 mm	130 mm	150 mm
	-55...70 °C	-40...60 °C	-40...70 °C	-55...115 °C	-55...70 °C
	–	–	–	–	–
	Ø 1.5 mm (2x)	Ø 1.0 mm (2x)	Ø 1.0 mm (2x)	Ø 1.0 mm (2x)	Ø 1.0 mm (2x)
	Adjacent to one another	Adjacent to one another	Adjacent to one another	Adjacent to one another	Adjacent to one another
	IP65	IP65	IP65	IP65	IP65
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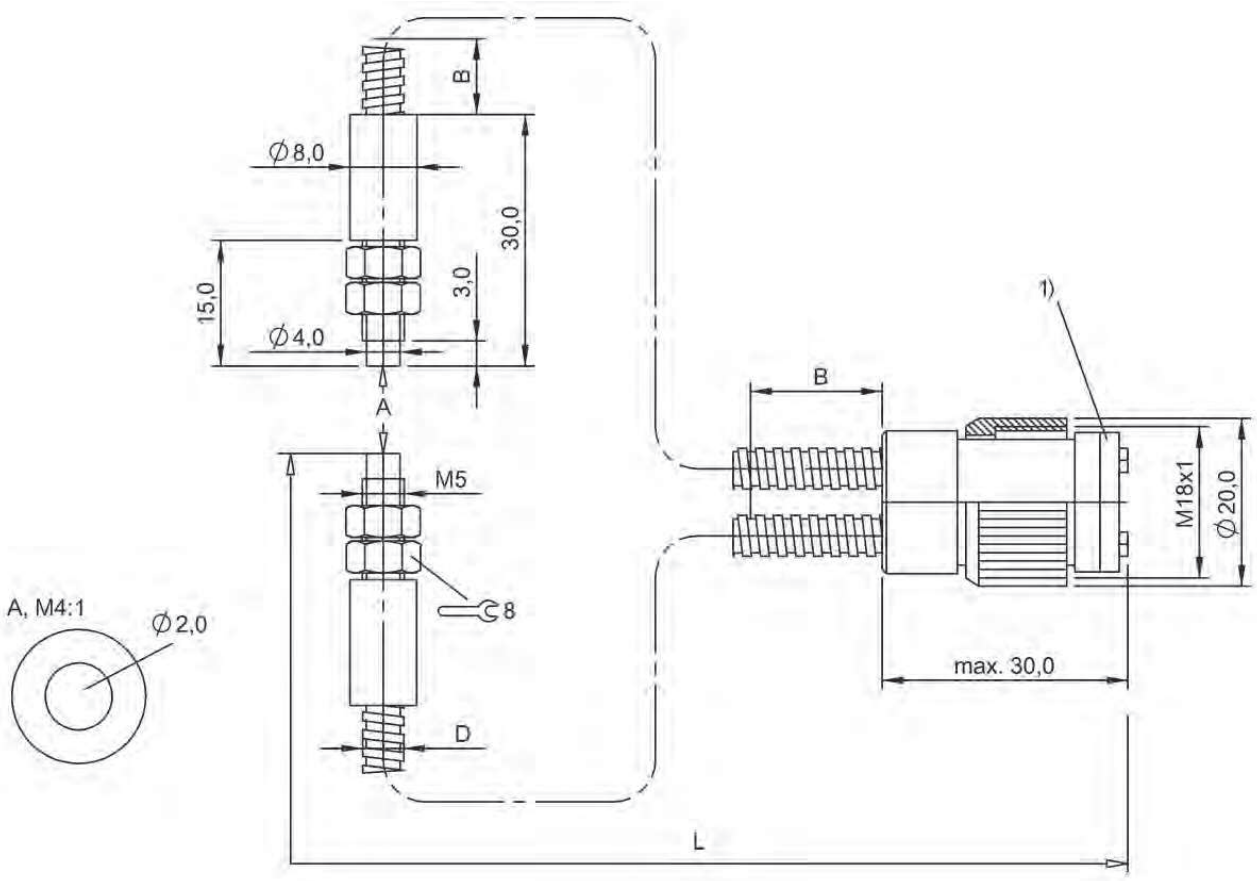
	BFO00AT BFO D13-XB-AB-EAK-10-01	BFO005A BFO D13-XA-JB-EAK-20-02	BFO0062 BFO D22-XA-MB-PAK-10-02	
Version	Ø 2.5, coax optics	Ø 3, Standard	Ø 3, thin point, 90° optics	
Photoelectric sensing principle	—	—	—	
Use	for fiber optic base units BFB	for fiber optic base units BFB	for fiber optic base units BFB	
Reference base unit	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..	
Fiber type material	PMMA	PMMA	PMMA	
Cable length L	1 m	2 m	2 m	
Material jacket	PE	PE	PVC	
Range	60 mm	130 mm	35 mm	
Ambient temperature	-55...70 °C	-55...70 °C	-40...70 °C	
Material	—	—	—	
Active surface, fibers	Ø 0.5 mm, Ø 0.25 mm (9x)	Ø 0.5 mm (2x)	Ø 0.5 mm (2x)	
Active surface, fiber arrangement	Ring around individual fiber	Adjacent to one another	Adjacent to one another	
IP rating	IP65	IP65	IP65	
Productview	Page 588	Page 589	Page 589	

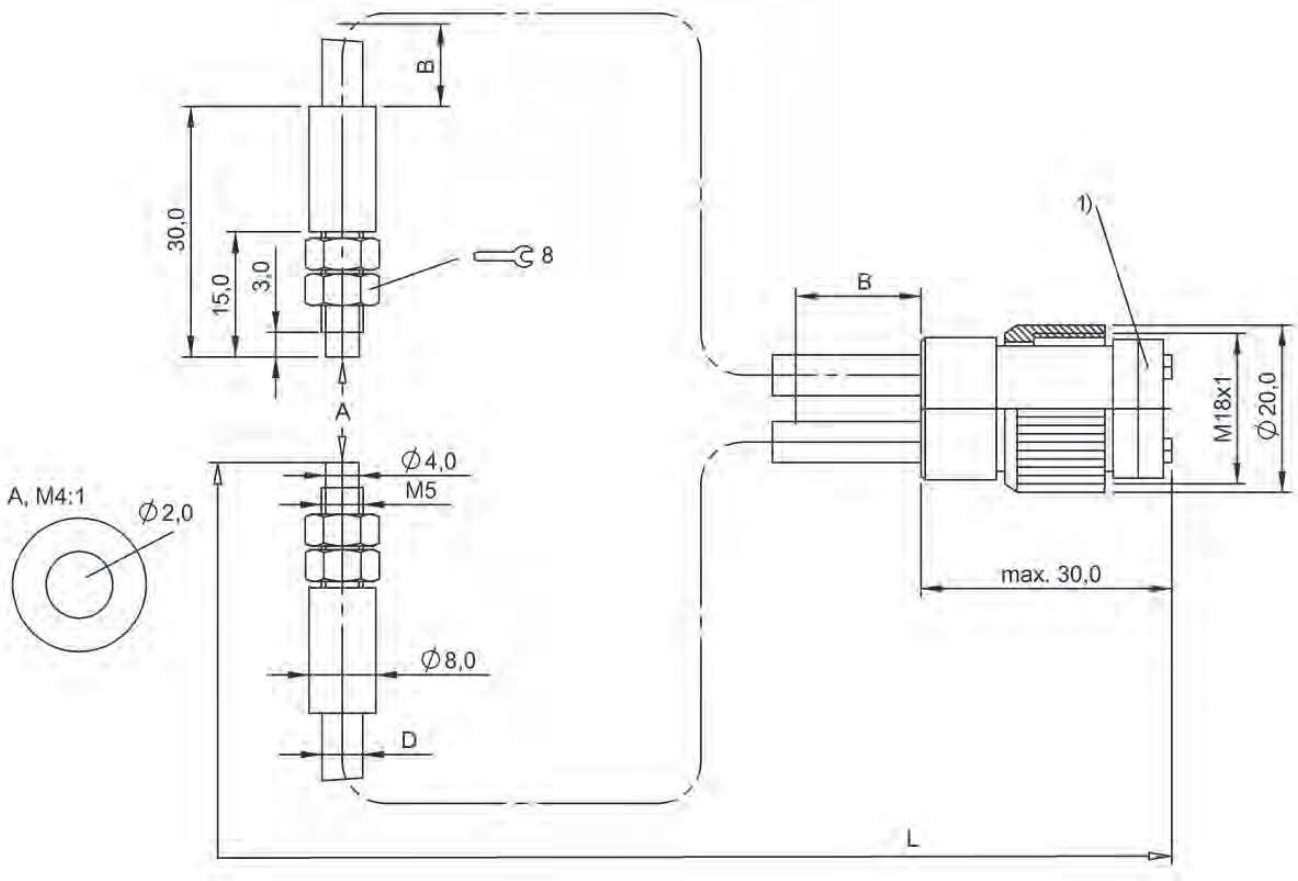


	BF0005Z BF0 D22-XA-CD-EAK-110-02	BF000AR BF0 D13-XV-AK-EAK-50-02	BF00060 BF0 D22-XA-ED-EAK-250-02		
	6x19, light grid	13x19.7, 90° optics	5.5x38, 90°-light grid		
	—	—	—		
	for fiber optic base units BFB	for fiber optic base units BFB	for fiber optic base units BFB		
	BFB 75K-001-..	BFB 75K-001-..	BFB 75K-001-..		
	PMMA	PMMA	PMMA		
	2 m	2 m	2 m		
	PE	PE	PE		
	100 mm	6 mm	90 mm		
	-55...70 °C	-55...70 °C	-55...70 °C		
	—	—	—		
	Ø 0.25 mm (32x)	Ø 0.5 mm (2x)	Ø 0.25 mm (32x)		
	Row	Distance	Row		
	IP65	IP65	IP65		
	Page 590	Page 590	Page 591		



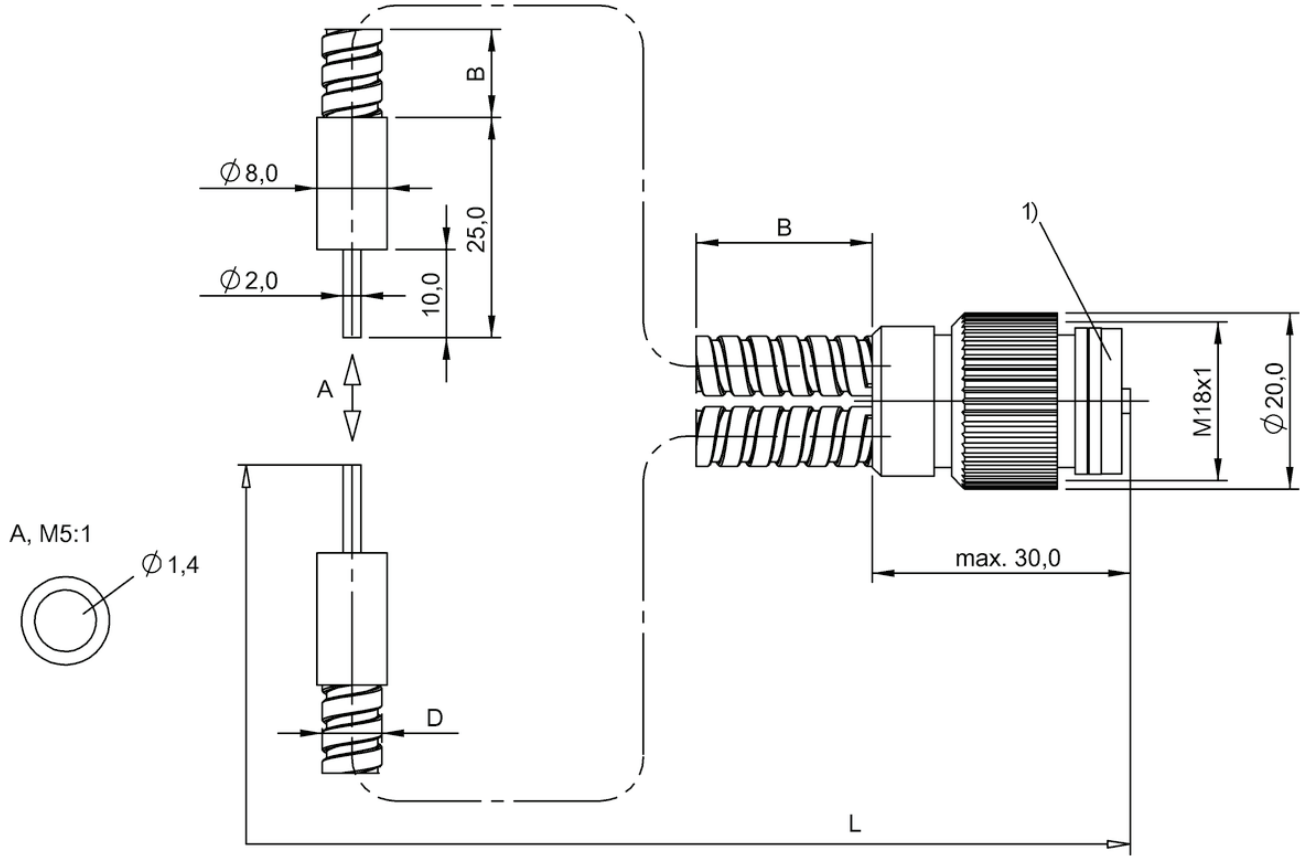
1) Disc removable

BFO000F, BFO000H, BFO000J



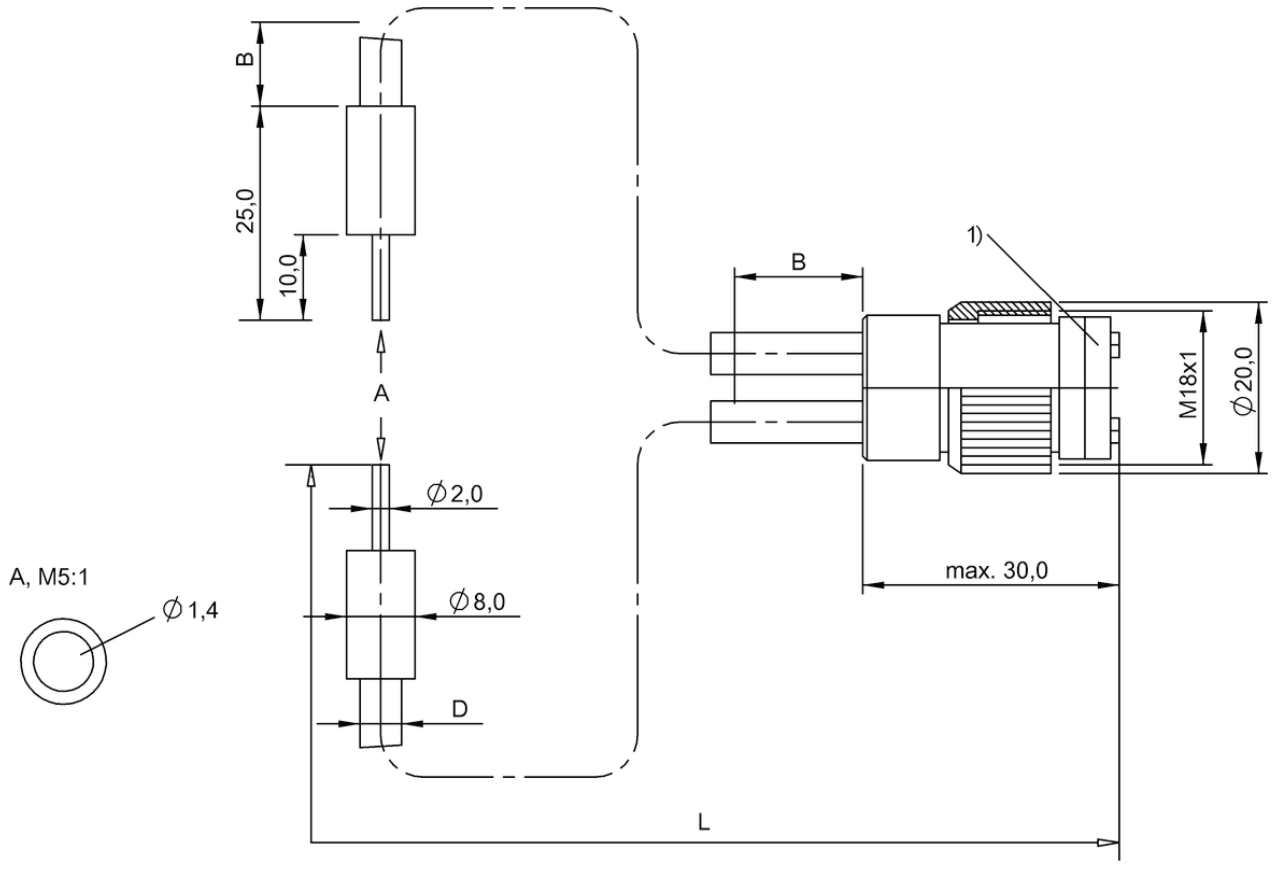
1) Disc removable

BFO000M, BFO000N



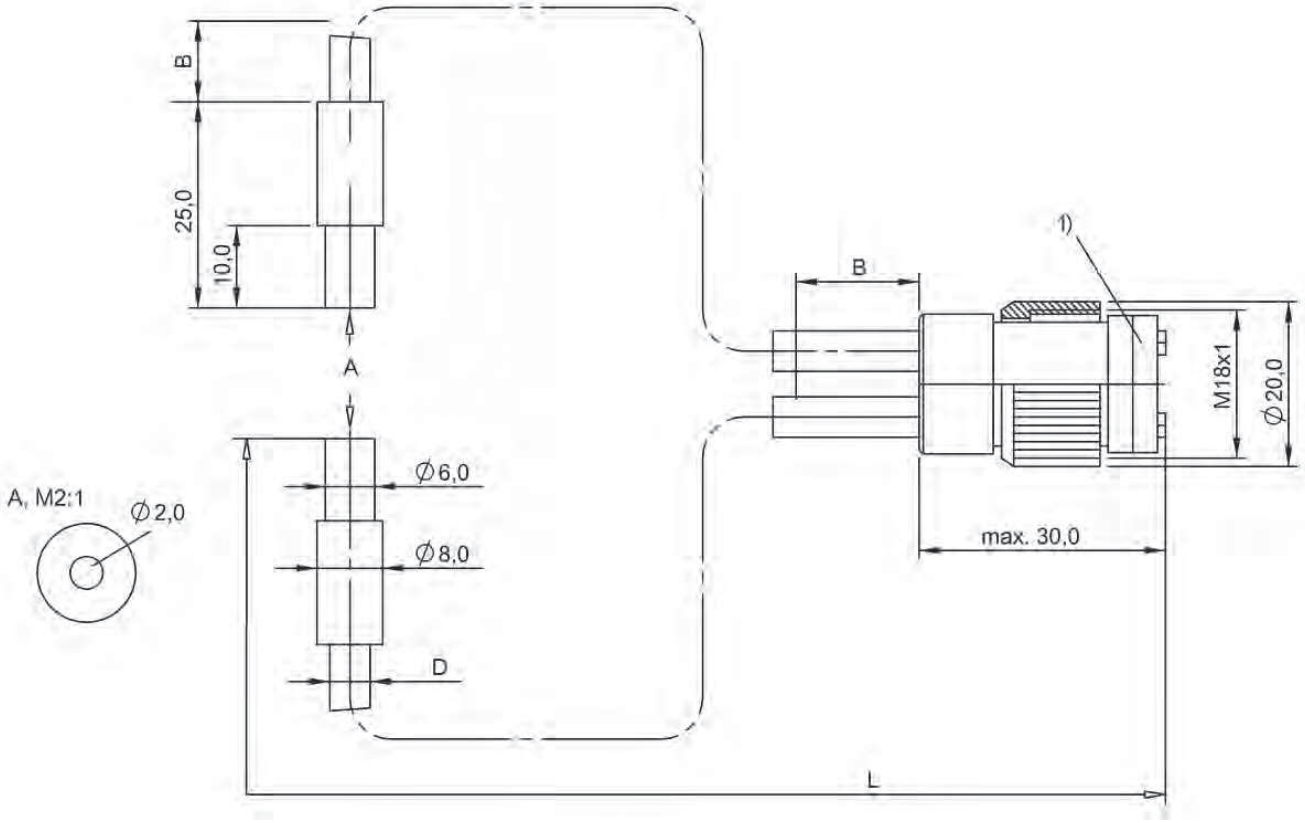
1) Disc removable

BFO001Z, BFO0020



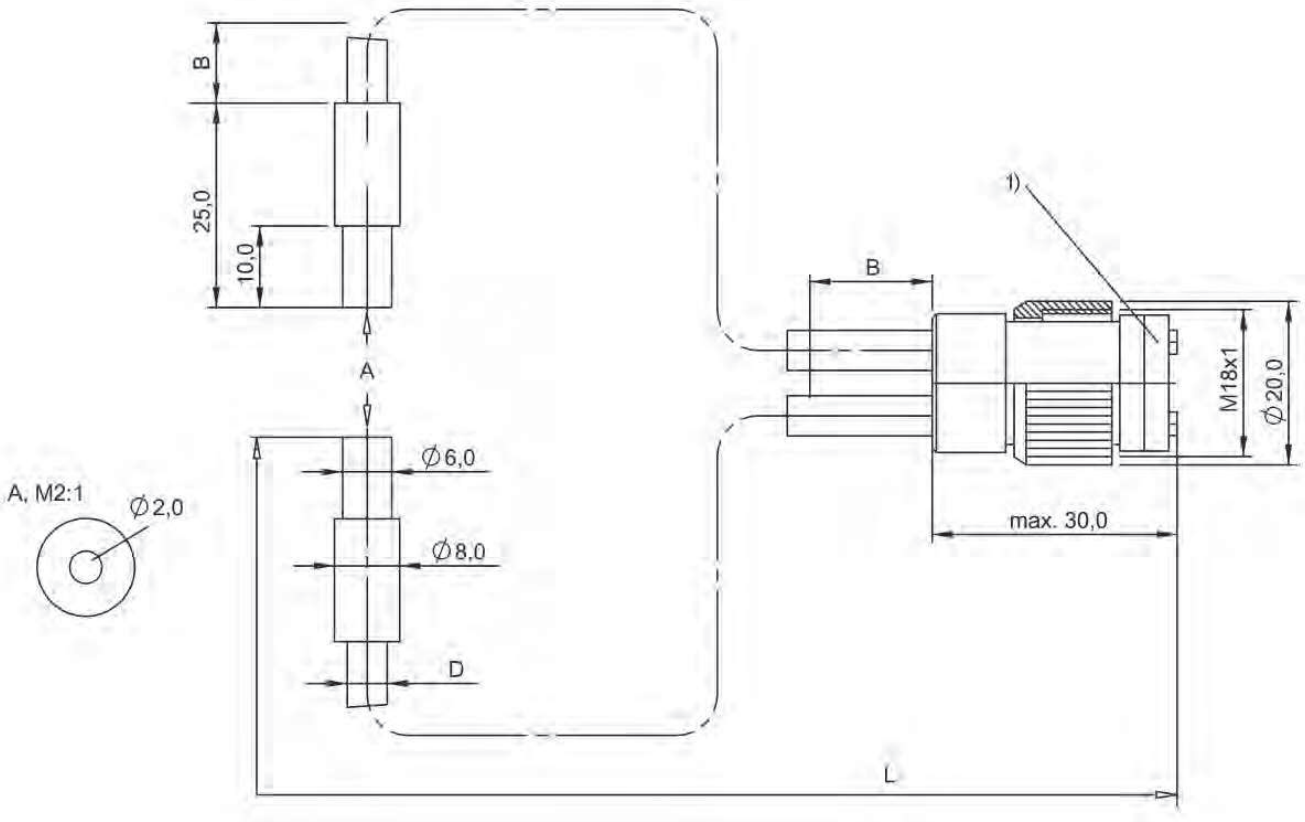
1) Disc removable

BFO00023, BFO0024



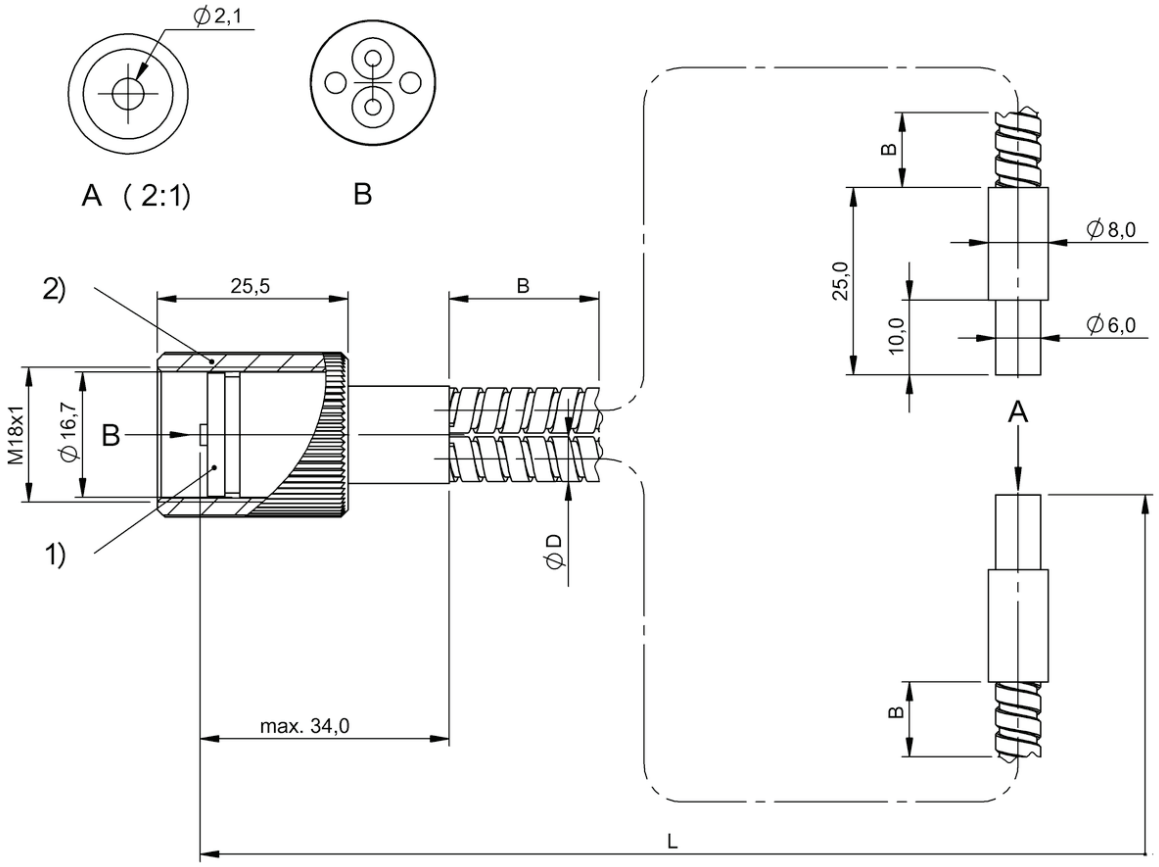
1) Disc removable

BF0000U, BF0000W



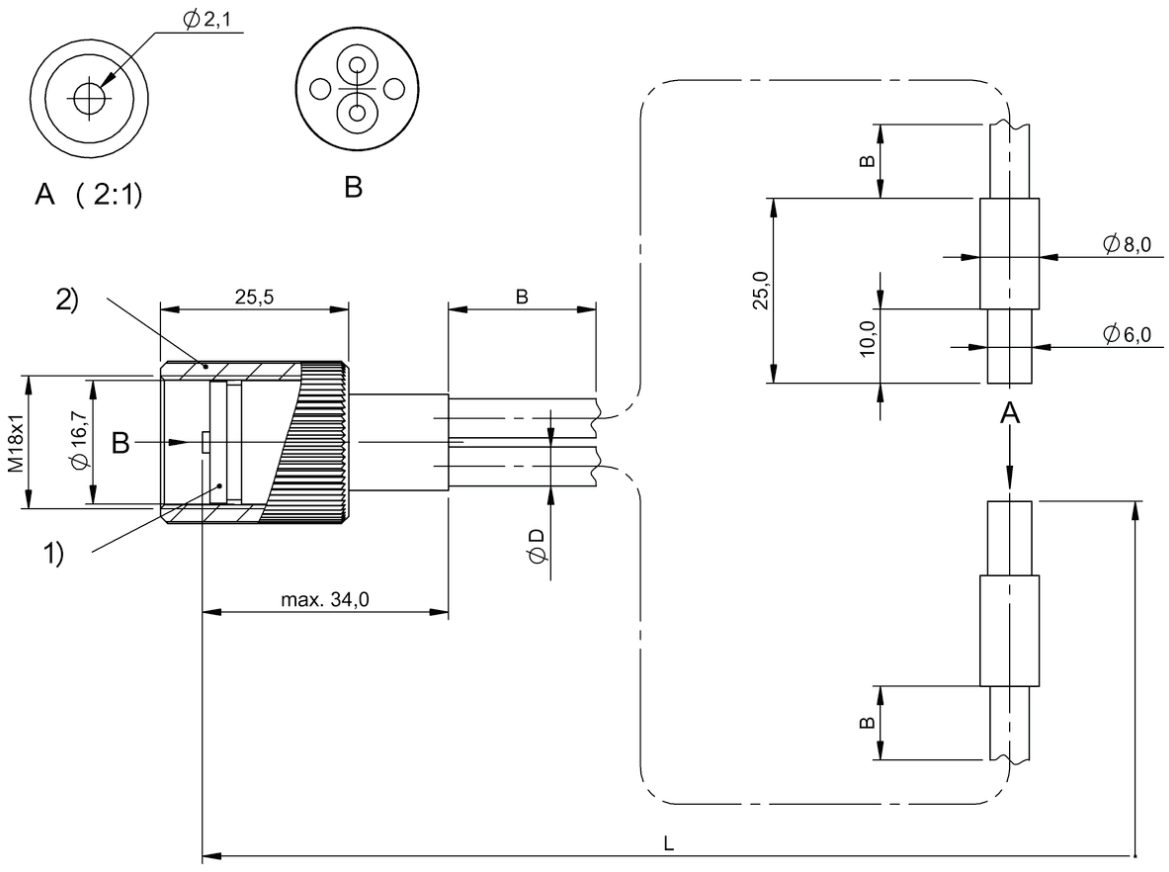
1) Disc removable

BF0000Z



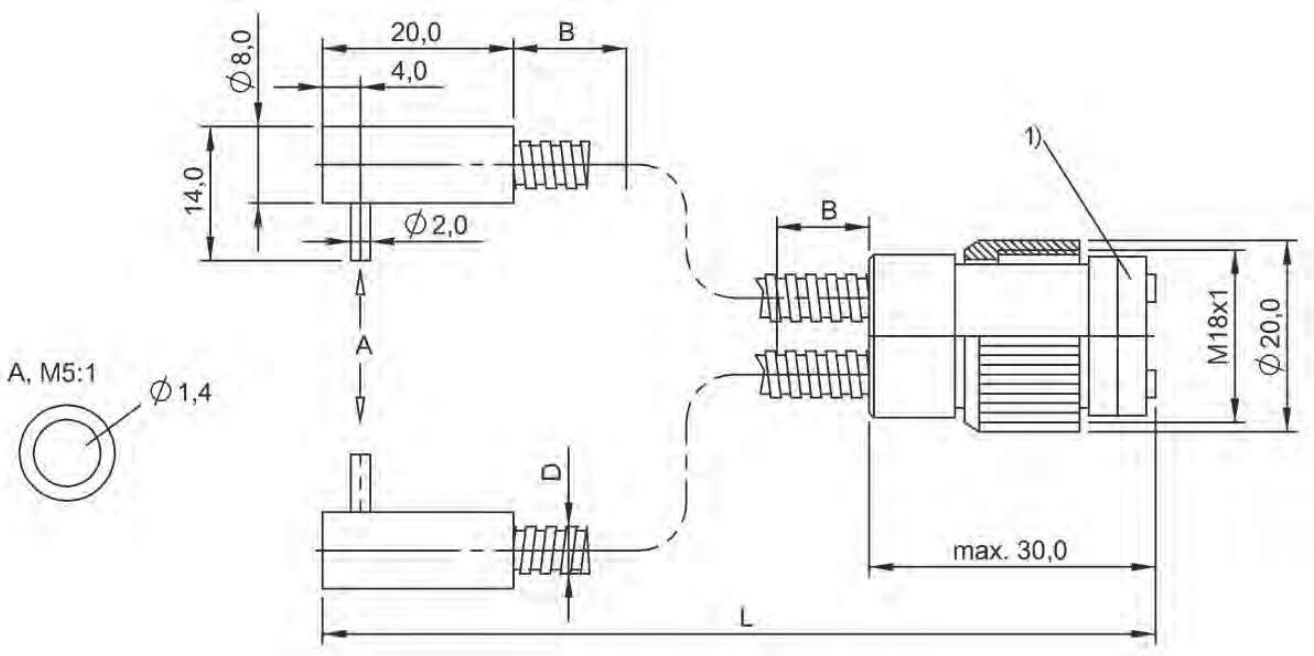
1) Disc removable, 2) cap nut

BFO003Y, BFO003Z



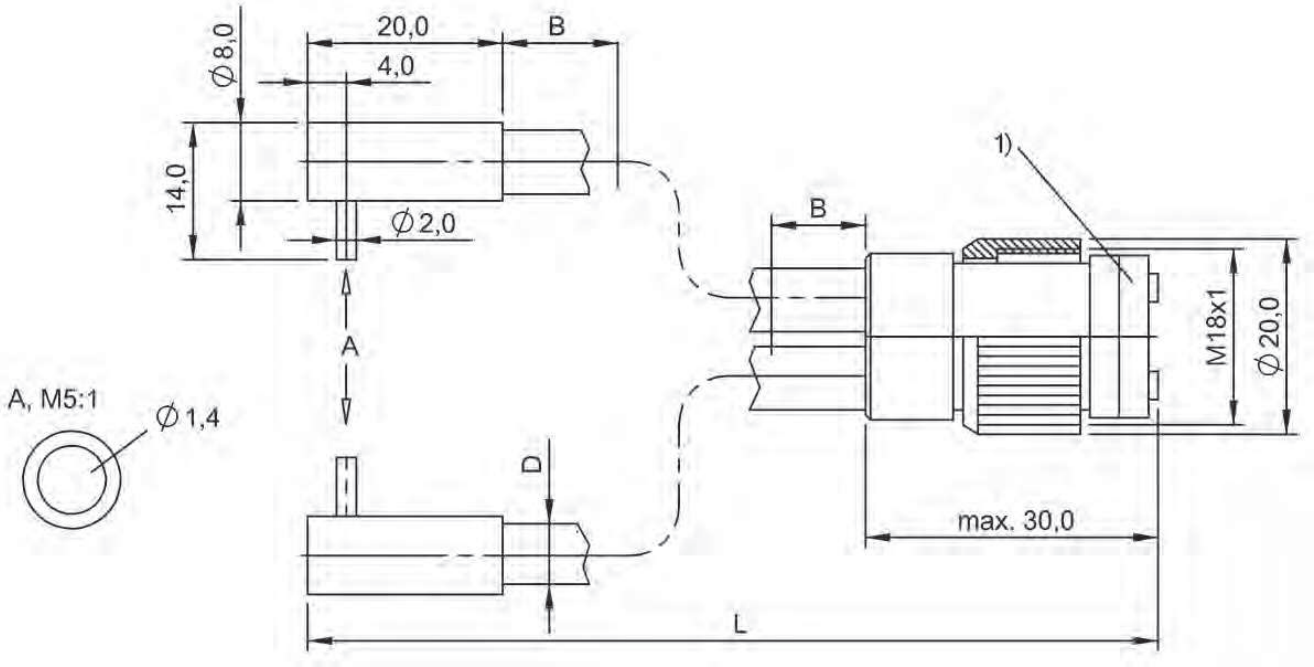
1) Disc removable, 2) cap nut

BFO0042



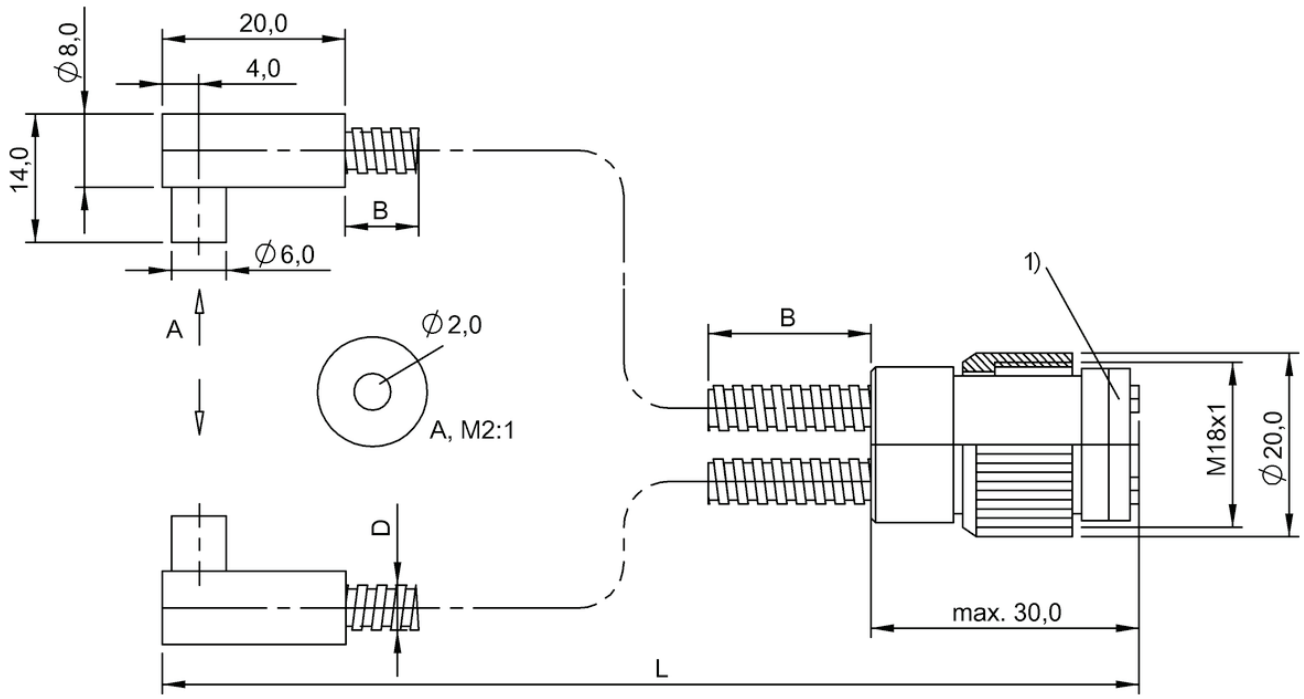
1) Disc removable

BF0001P, BF0001R



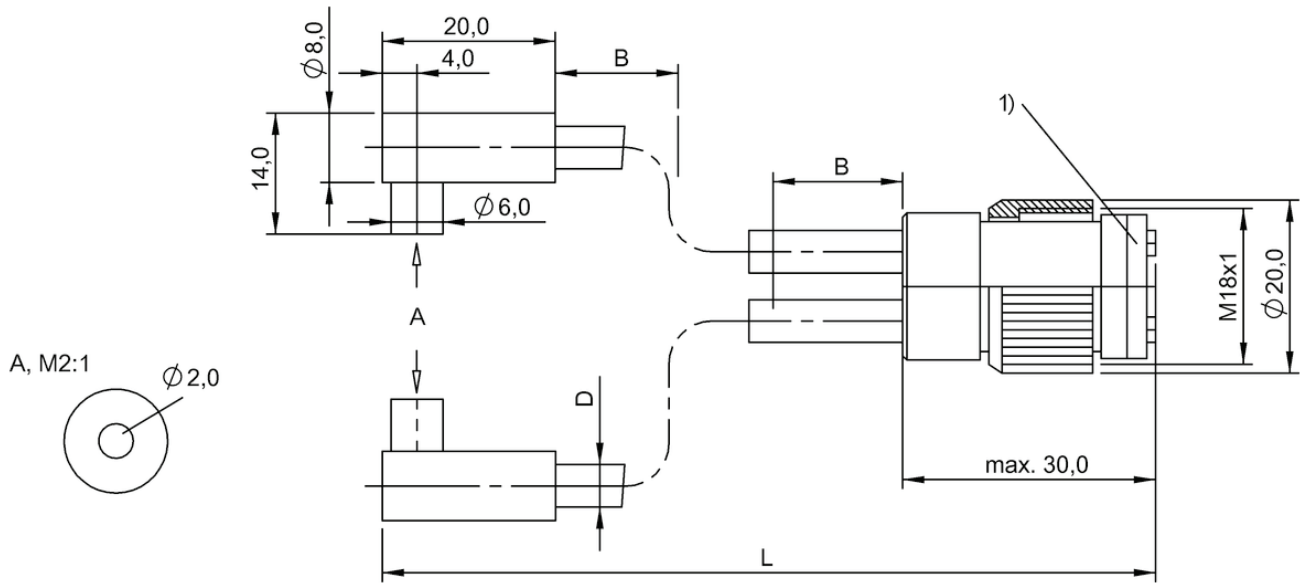
1) Disc removable

BF0001U, BF0001W



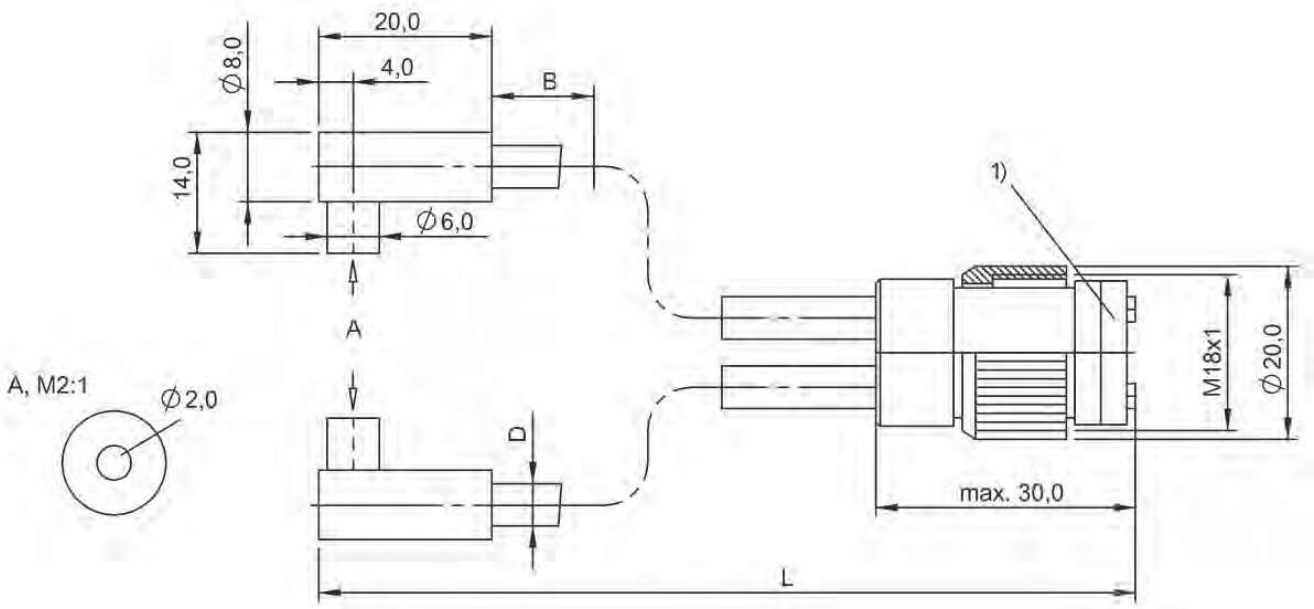
1) Disc removable

BFO0013, BFO0014



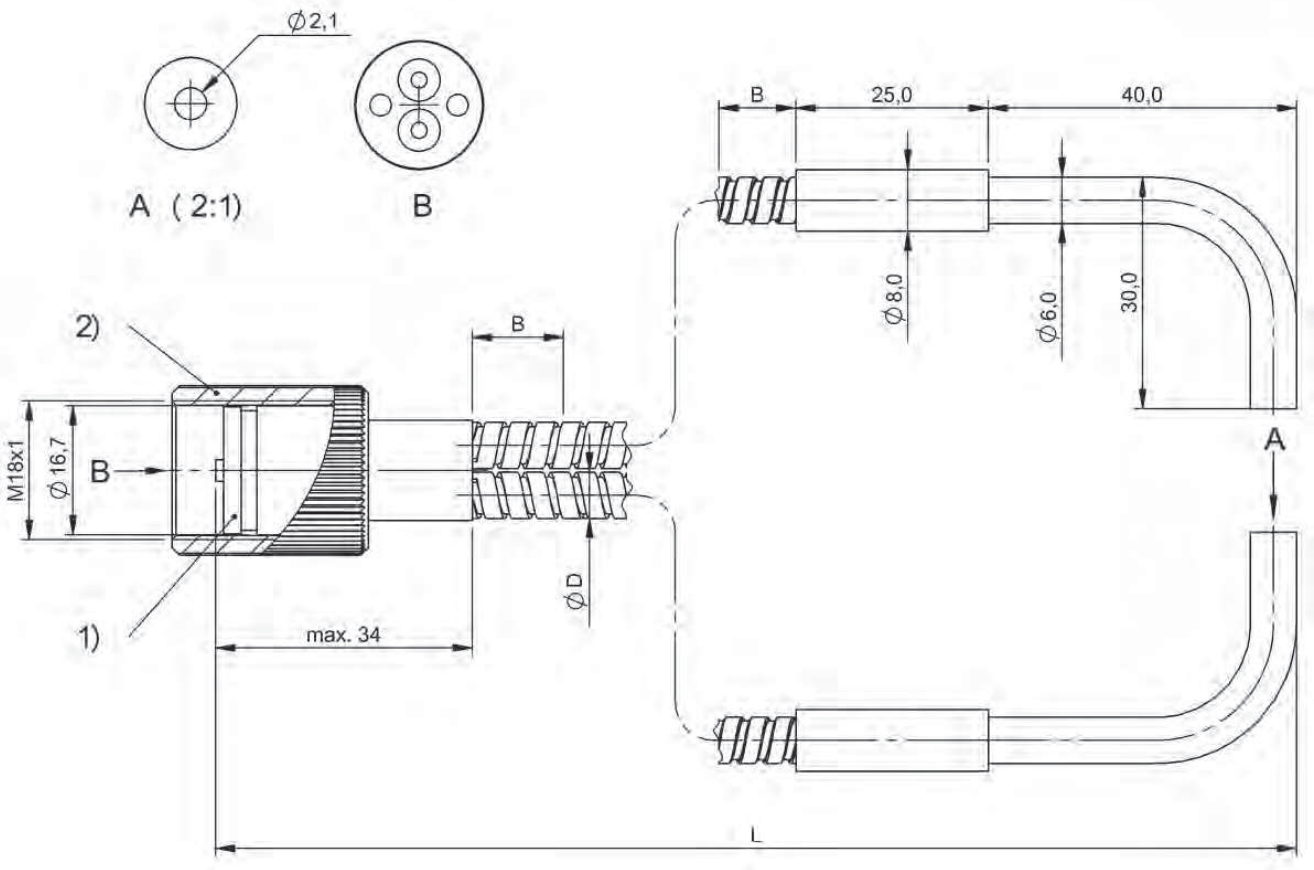
1) Disc removable

BFO0019, BFO001A



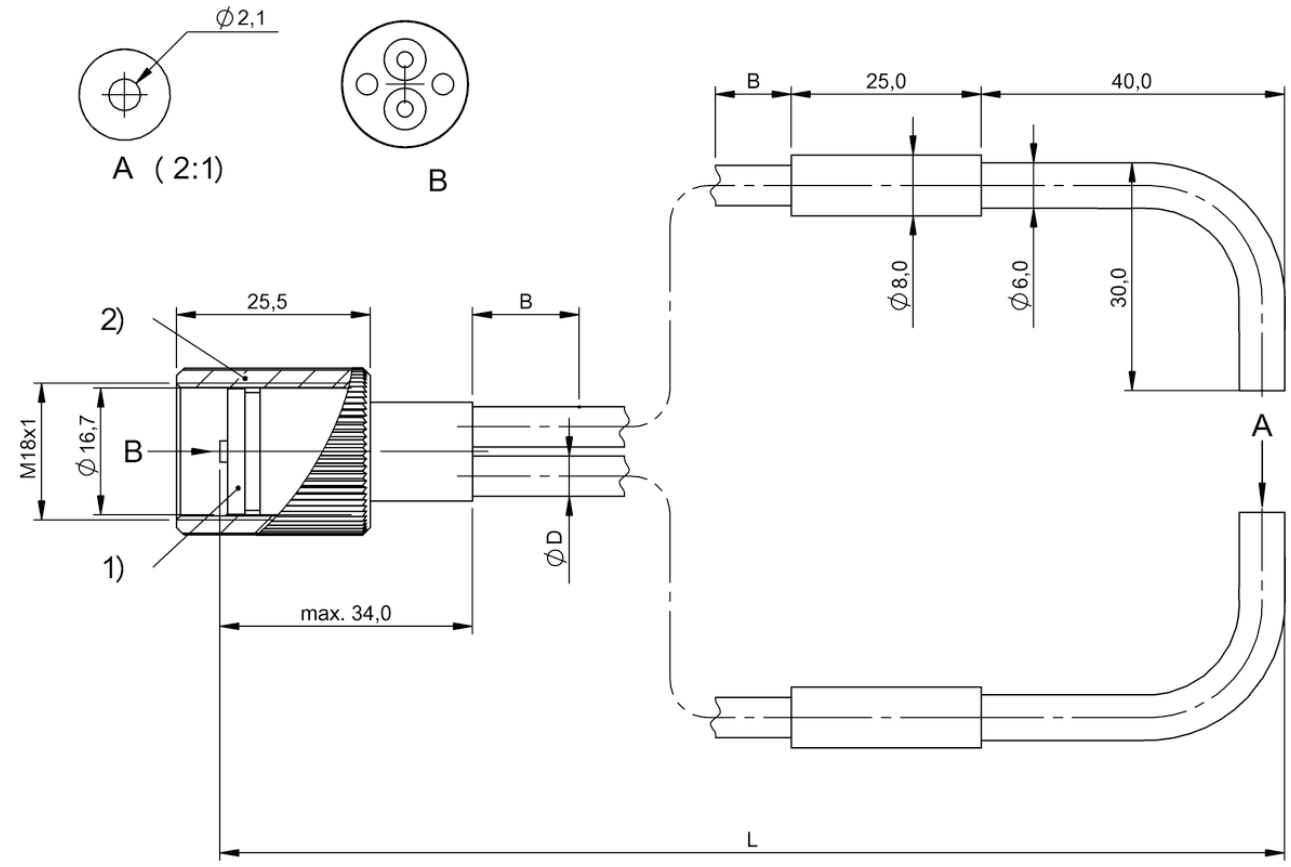
1) Disc removable

BF0001F, BF0001H



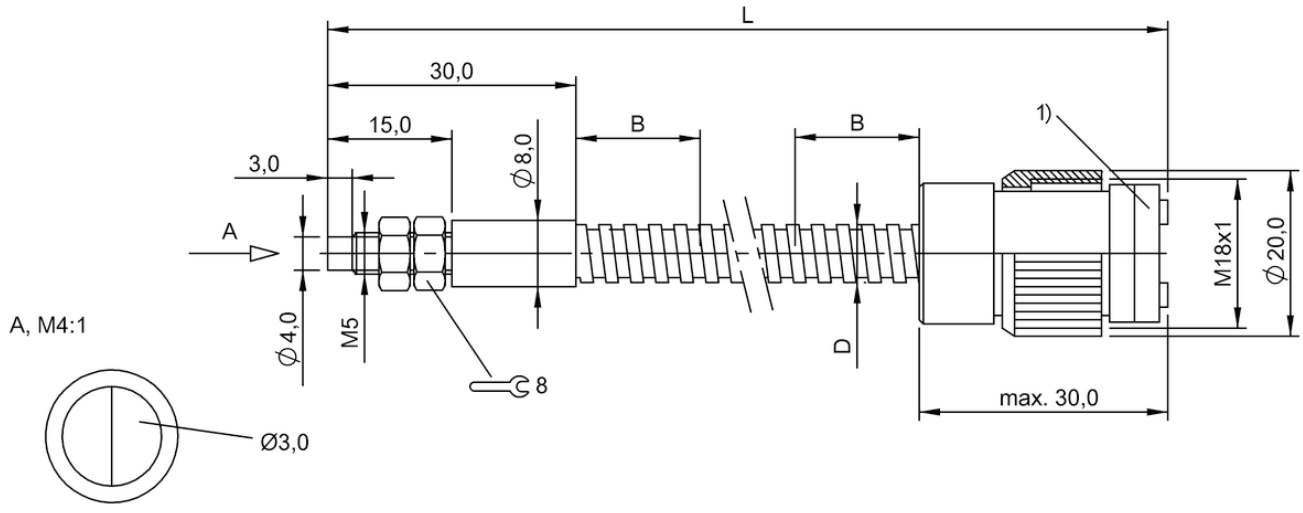
1) Disc removable, 2) cap nut

BF00047, BF00049, BF0004A



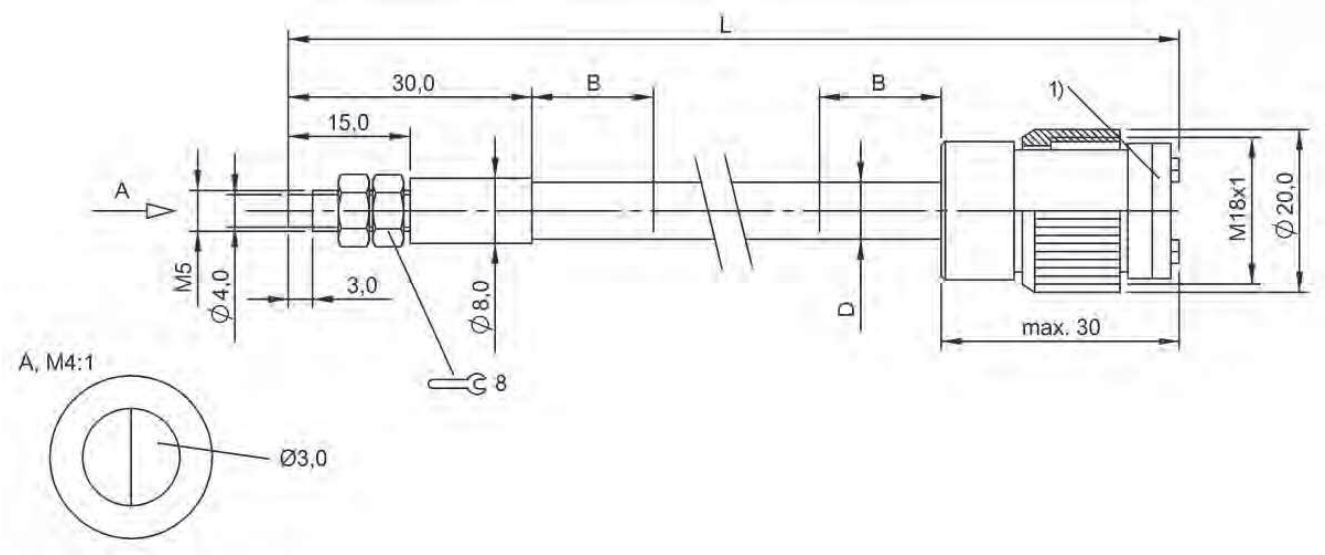
1) Disc removable, 2) cap nut

BFO004C, BFO004F



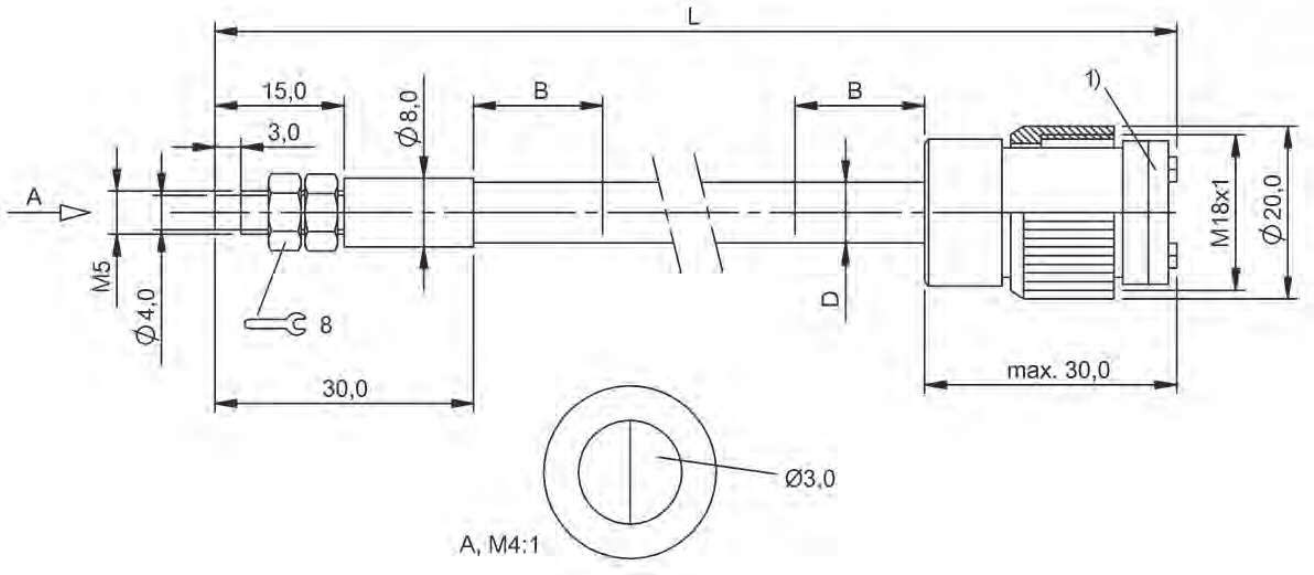
1) Disc removable

BFO0026, BFO0027, BFO00H3



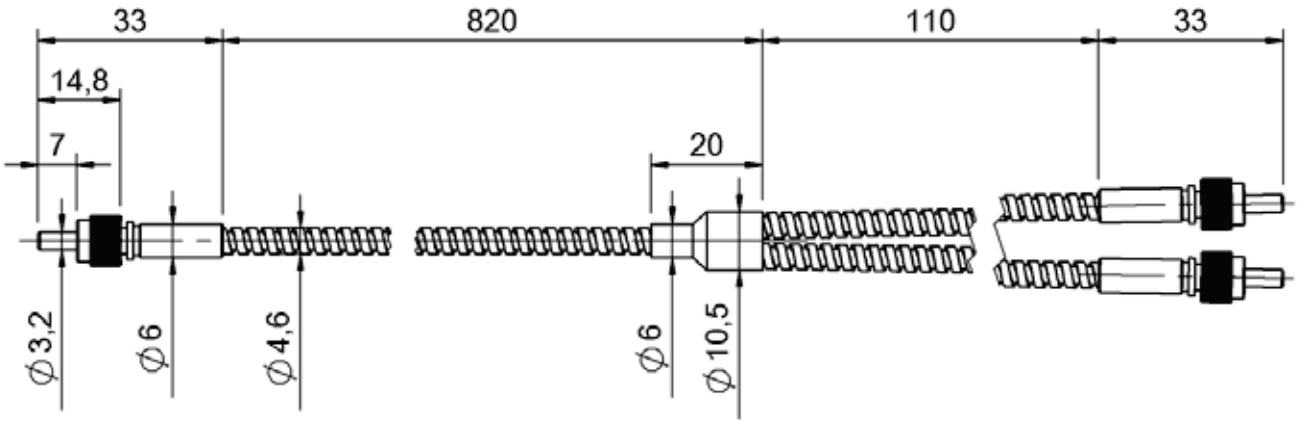
1) Disc removable

BFO002F, BFO002H

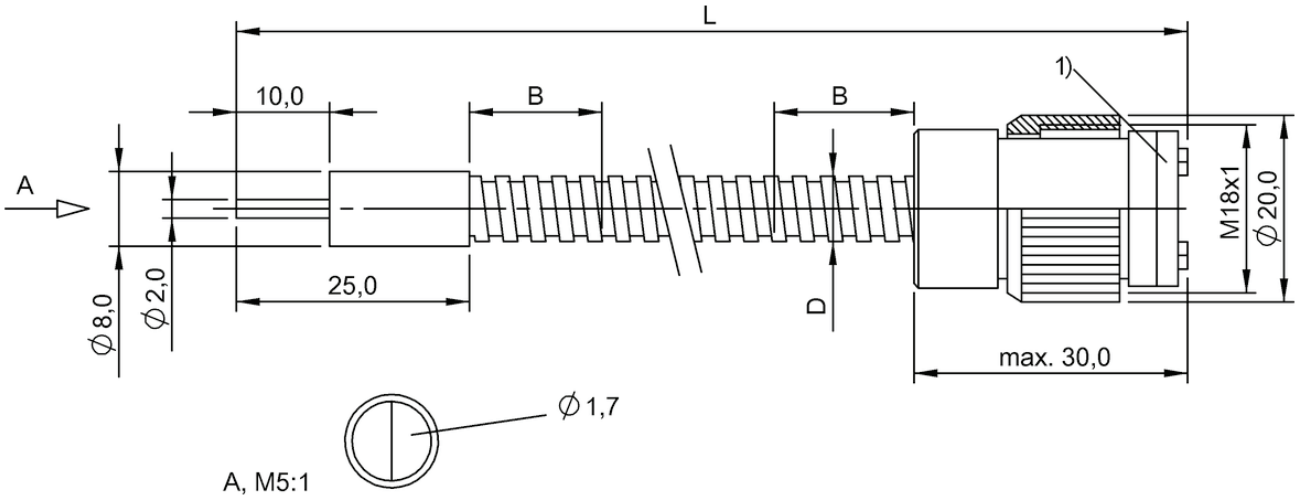


1) Disc removable

BFO002M, BFO002N

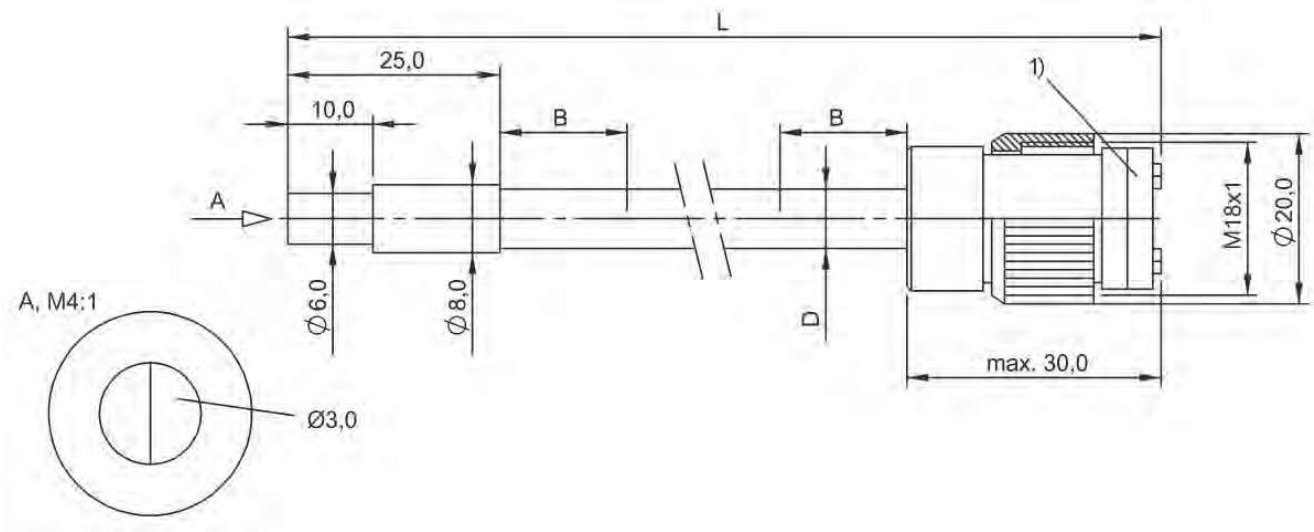


BFO00H8



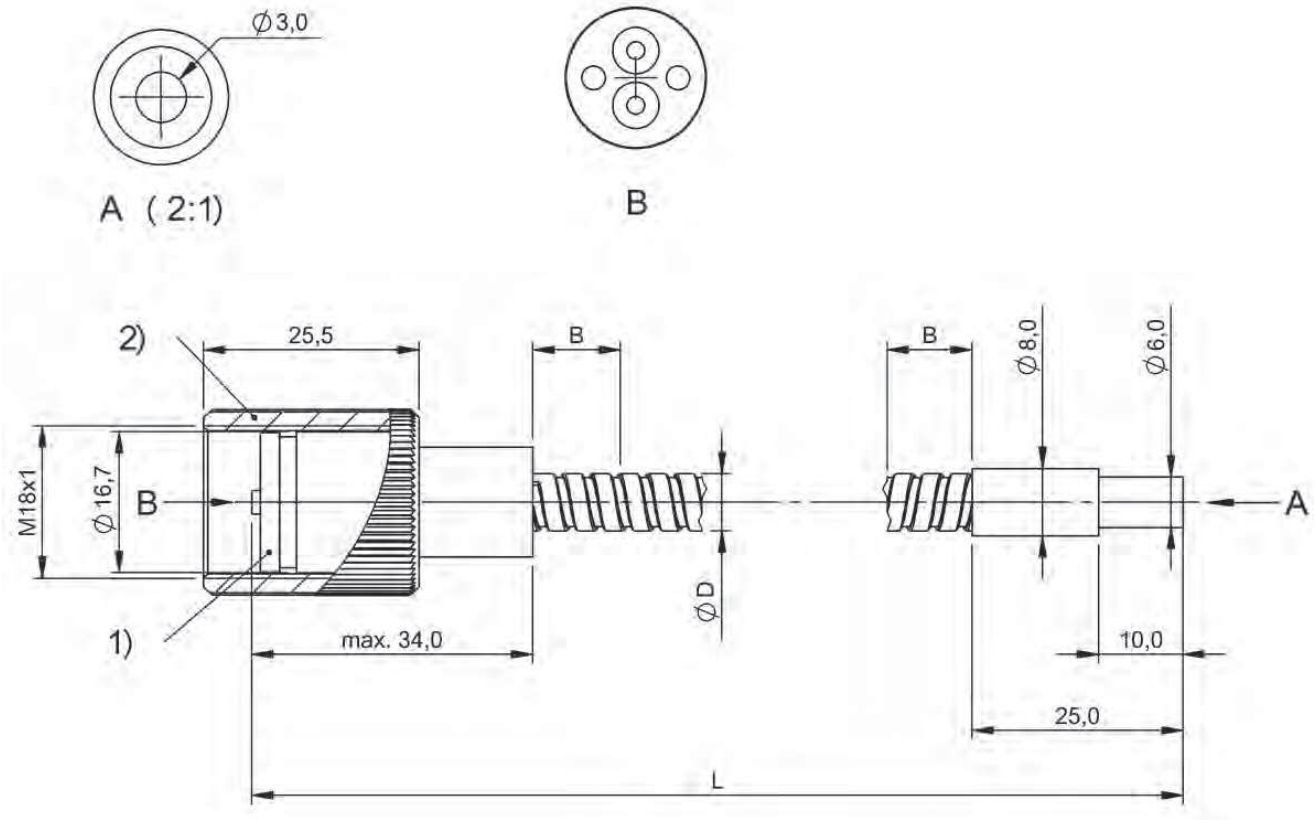
1) Disc removable

BFO003R, BFO003T



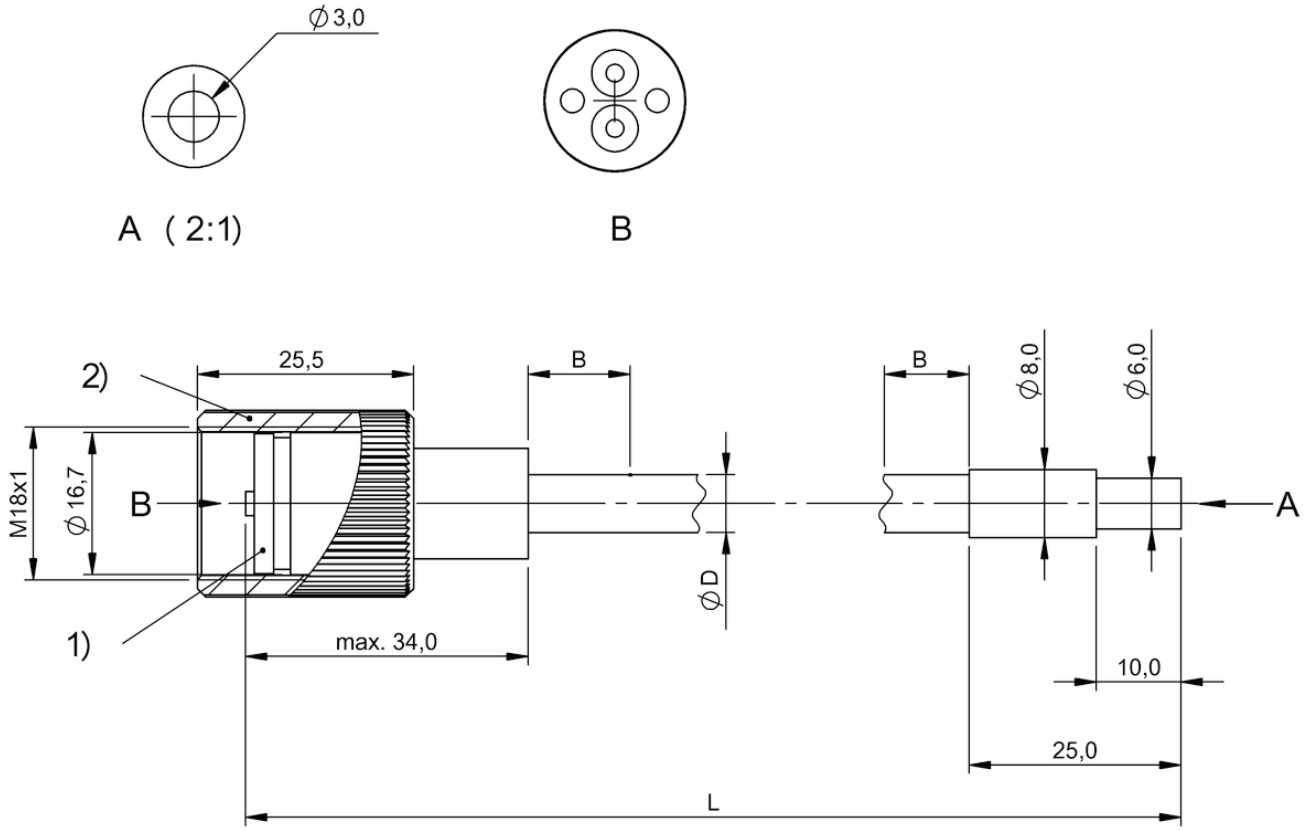
1) Disc removable

BF0002U, BF0002W



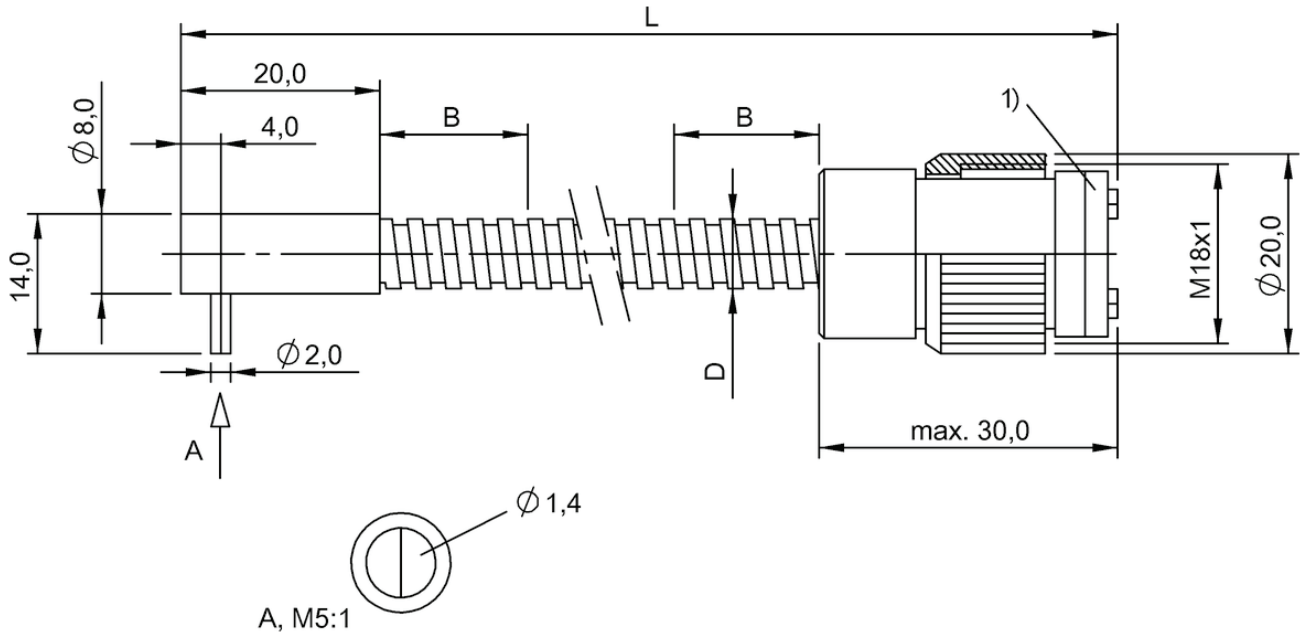
1) Disc removable, 2) cap nut

BF0004M



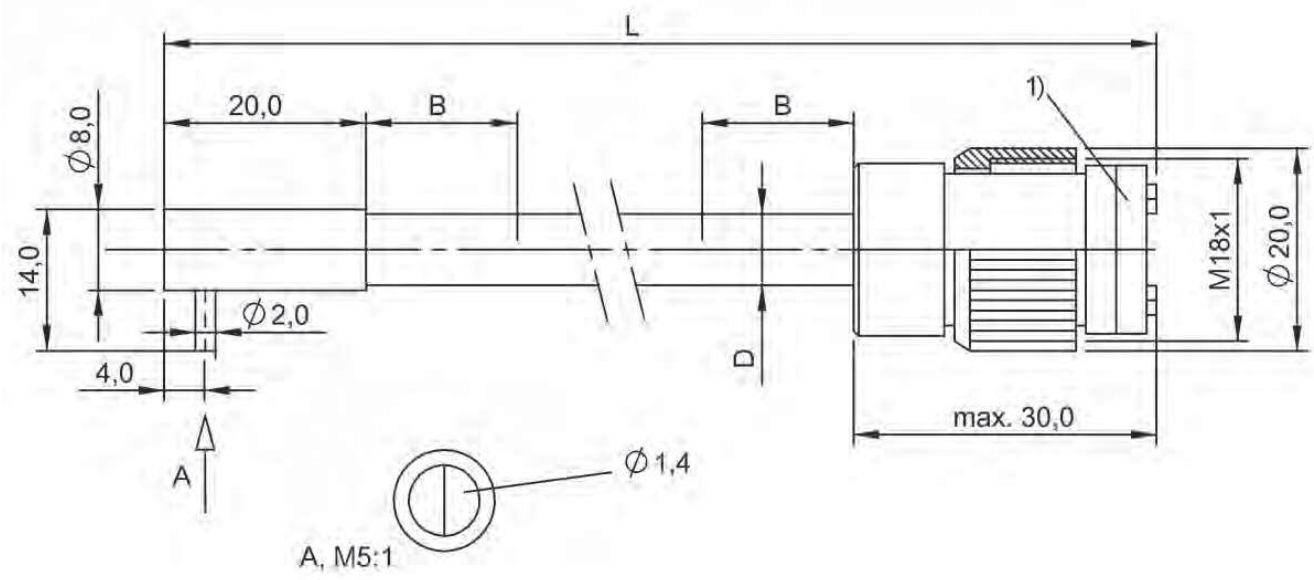
1) Disc removable, 2) cap nut

BFO0004P, BFO0004R



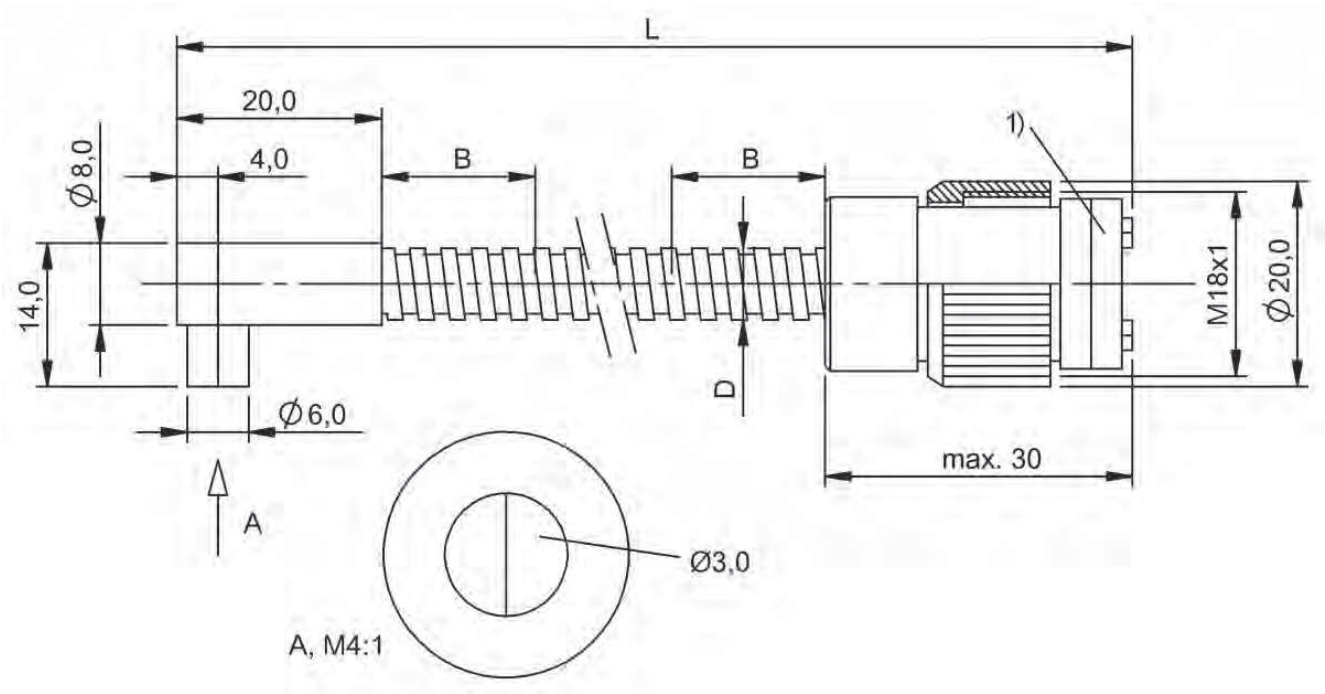
1) Disc removable

BFO0003H, BFO0003J



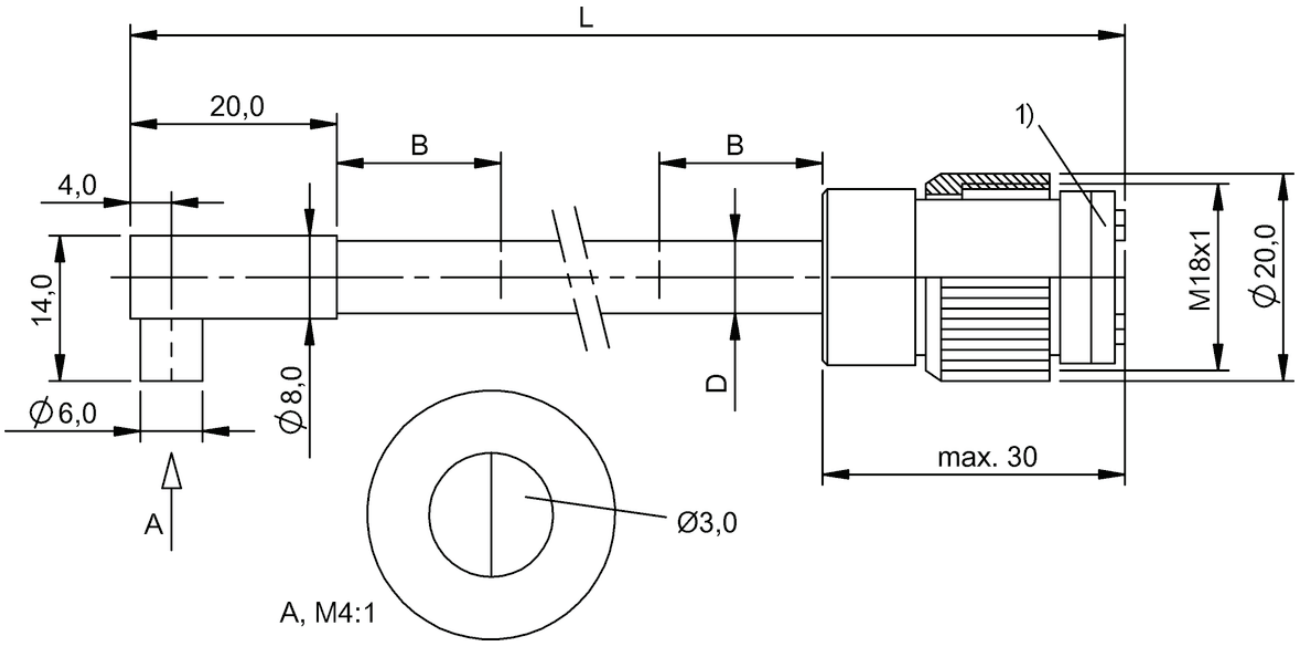
1) Disc removable

BF0003M, BF0003N



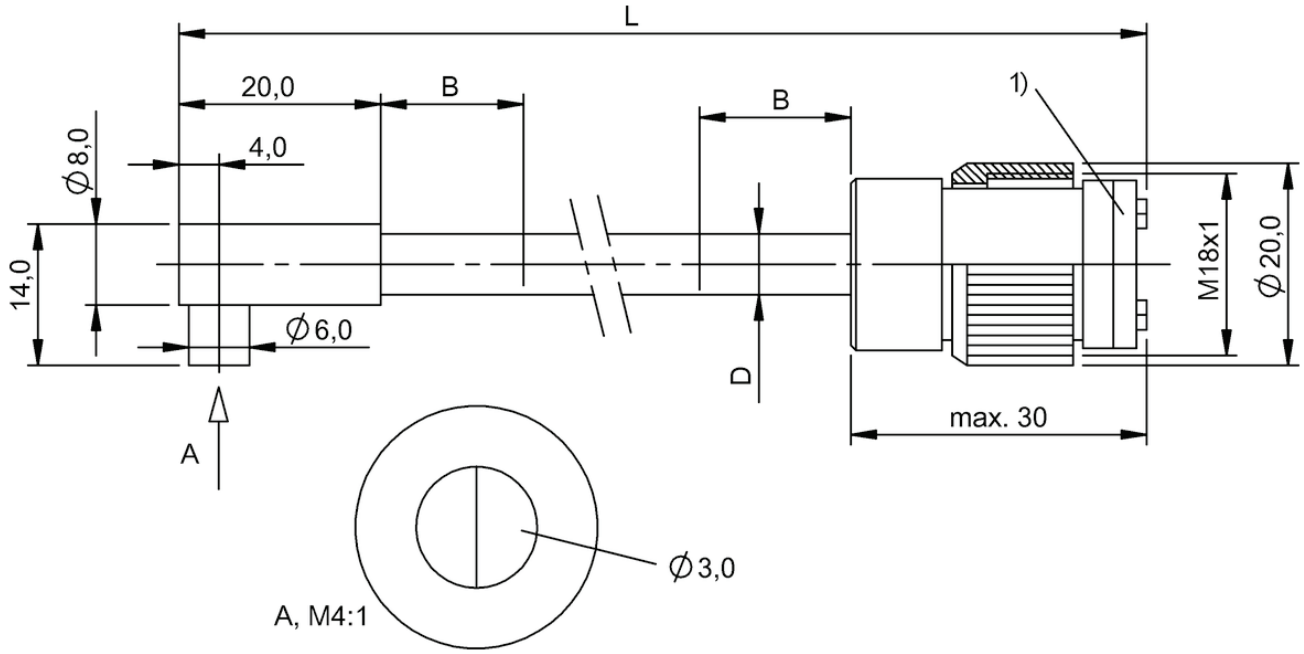
1) Disc removable

BF00031, BF00032



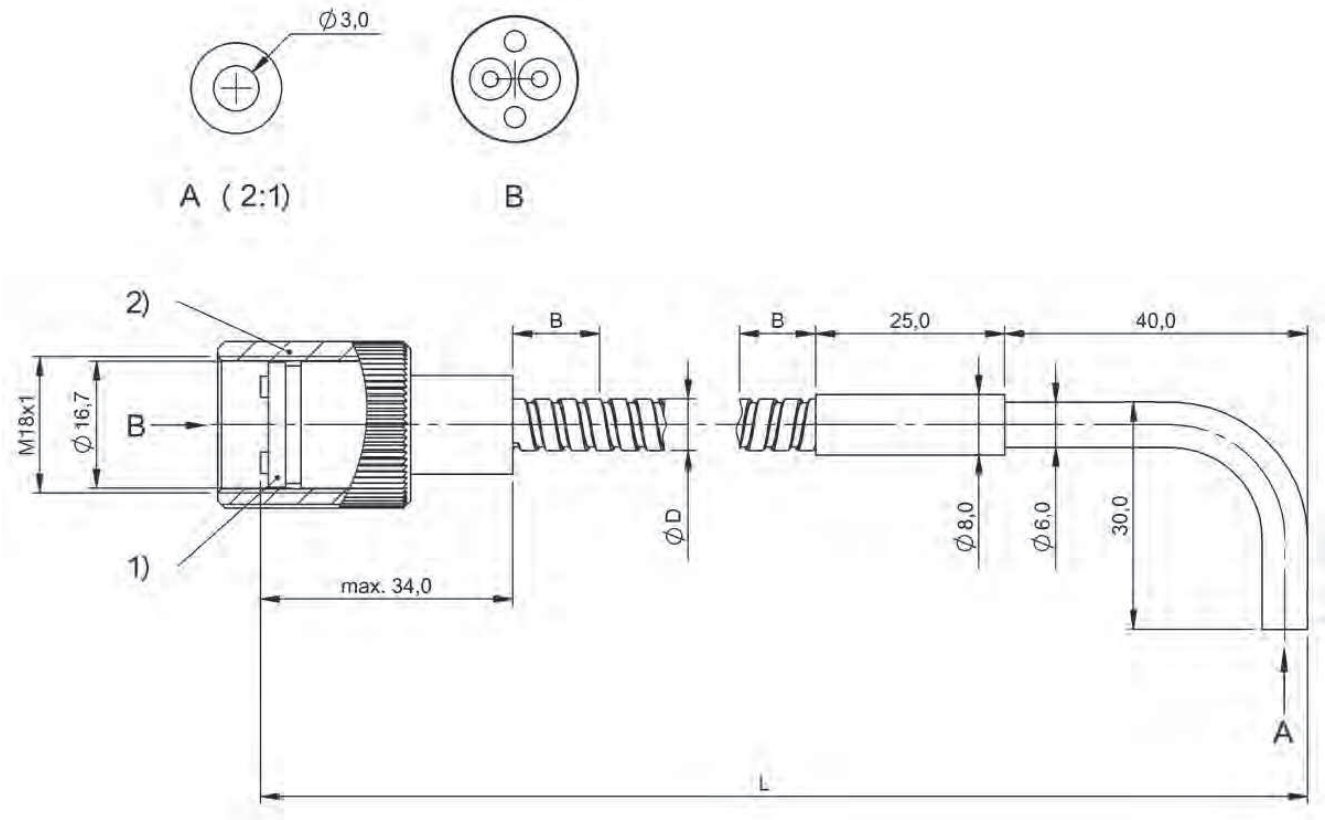
1) Disc removable

BFO00037, BFO00038



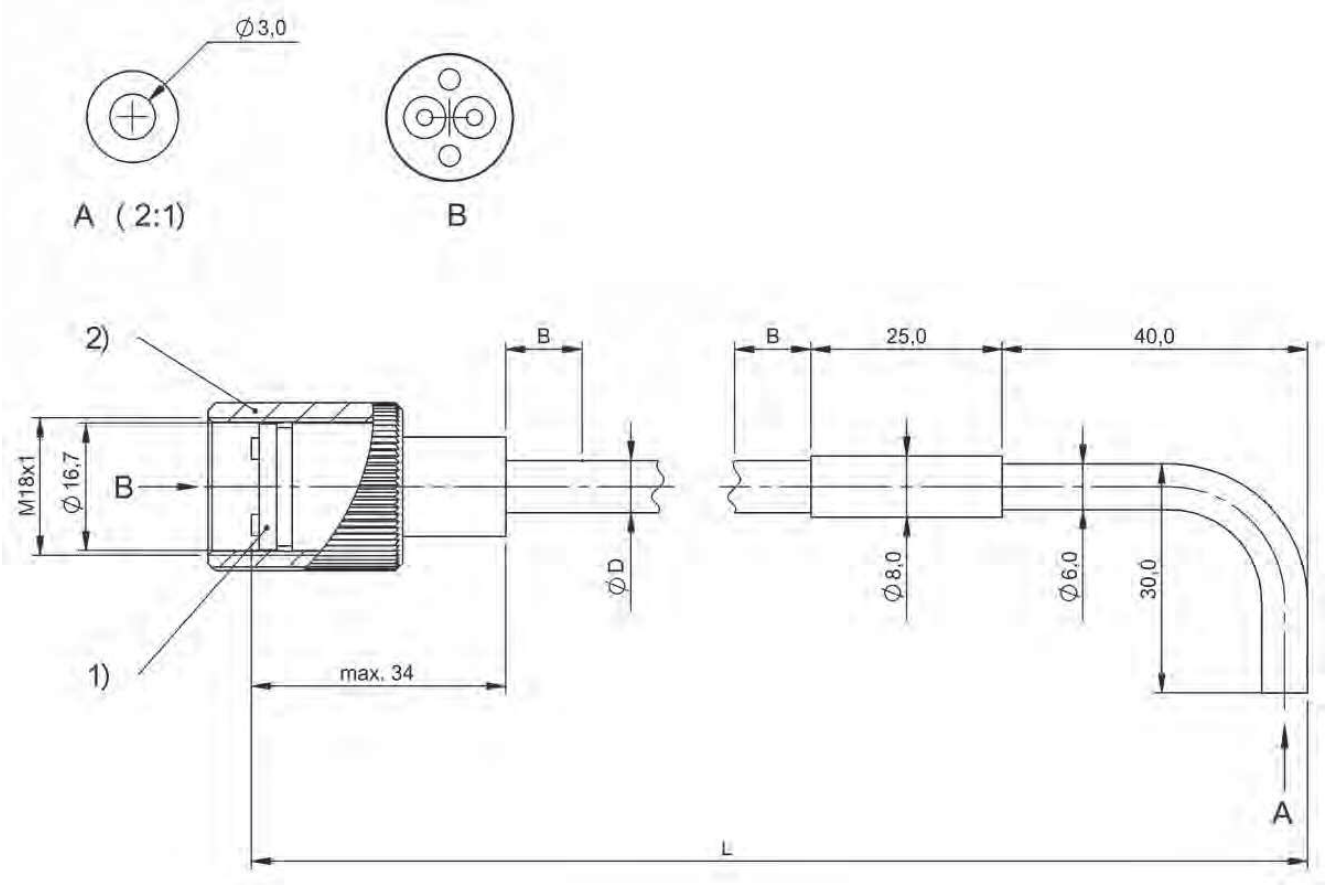
1) Disc removable

BFO0003C, BFO0003E



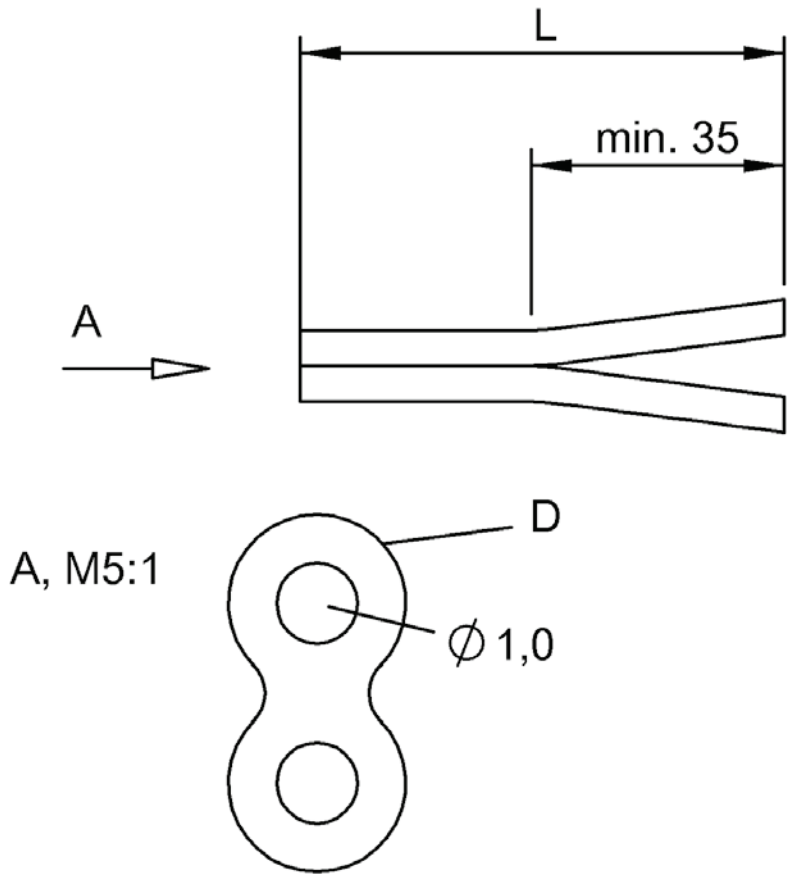
1) Disc removable, 2) cap nut

BF0004U

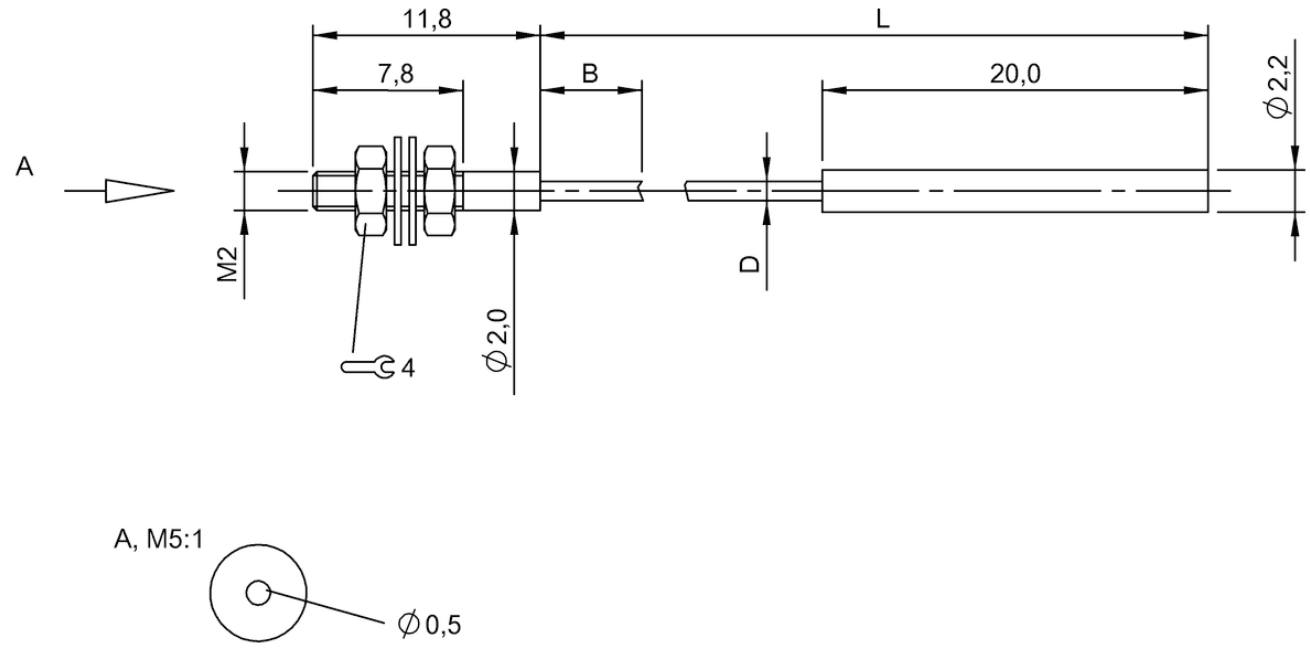


1) Disc removable, 2) cap nut

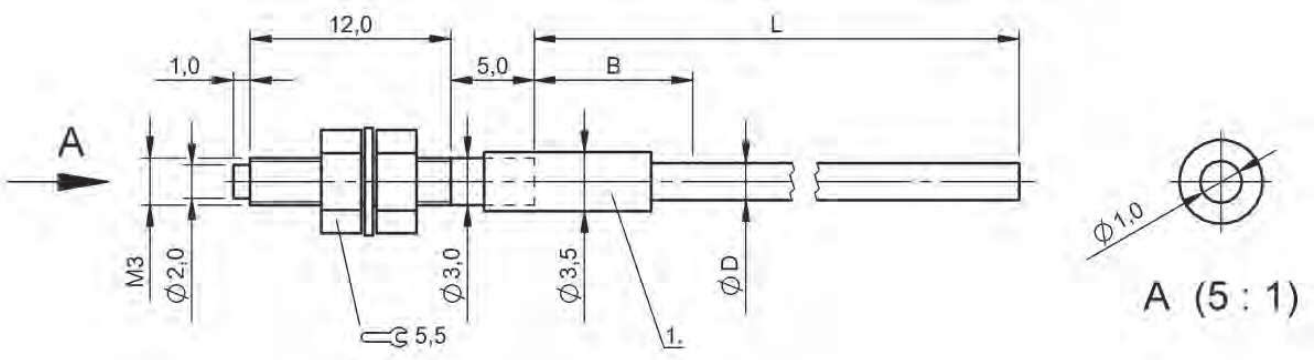
BF0004Y, BF0004Z



BFO005Y

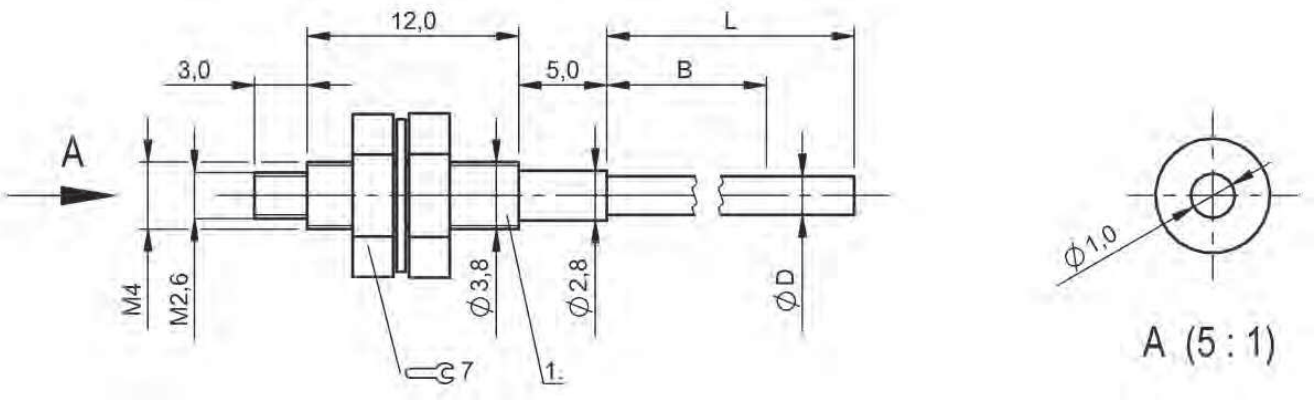


BFO000C



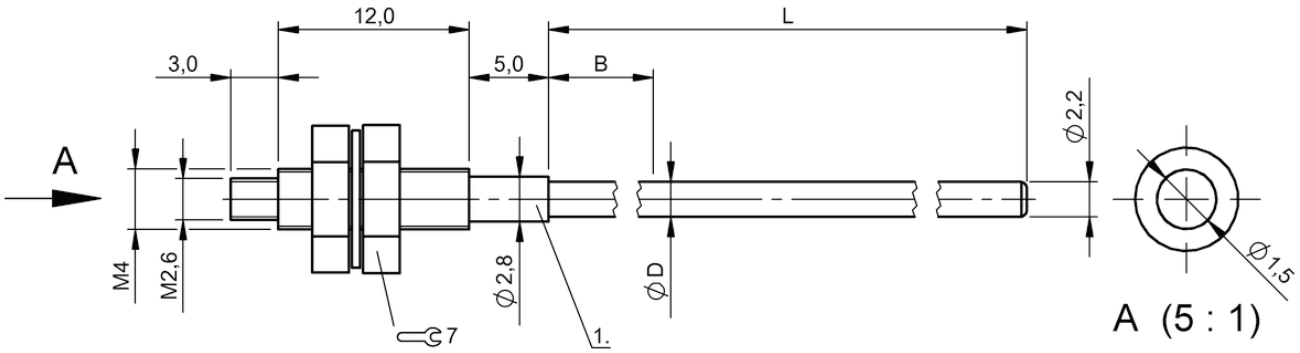
1) Protective tube

BF0005R



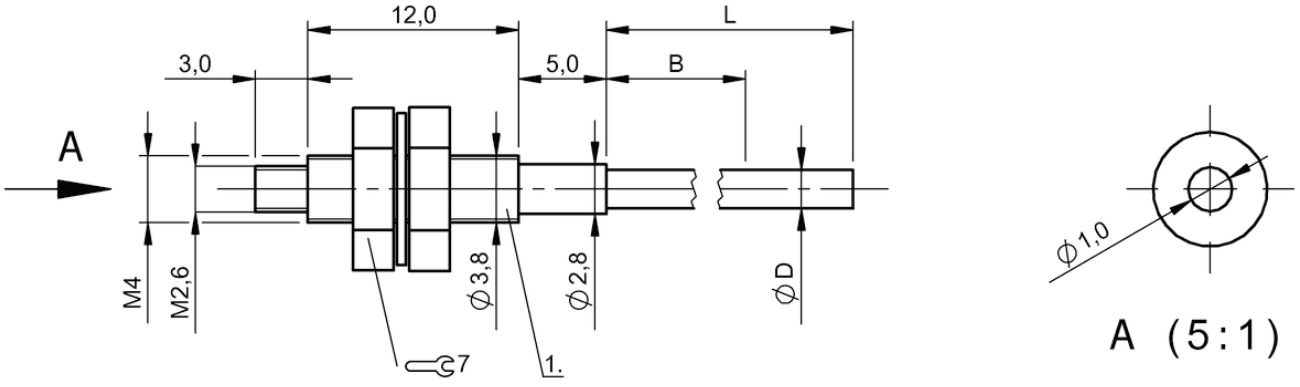
1) Protective tube

BF0005M



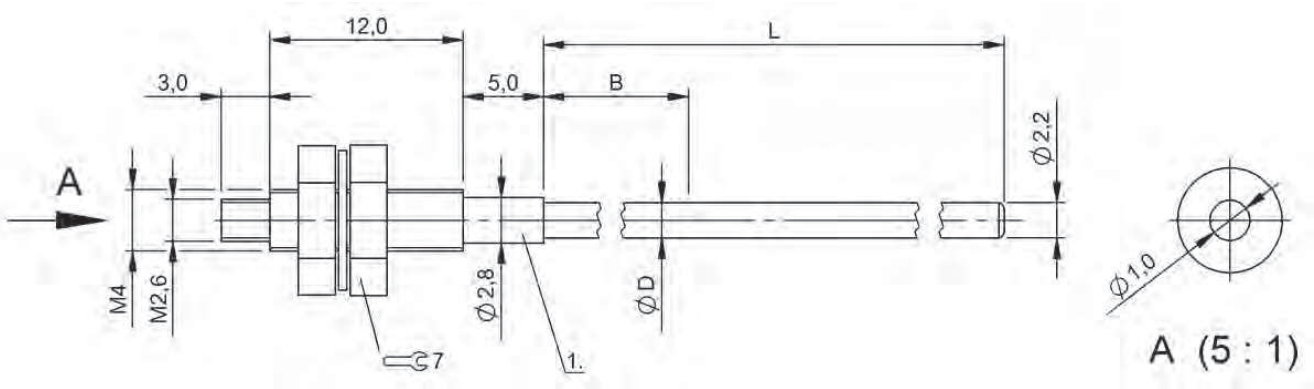
1) Protective tube

BFO005U



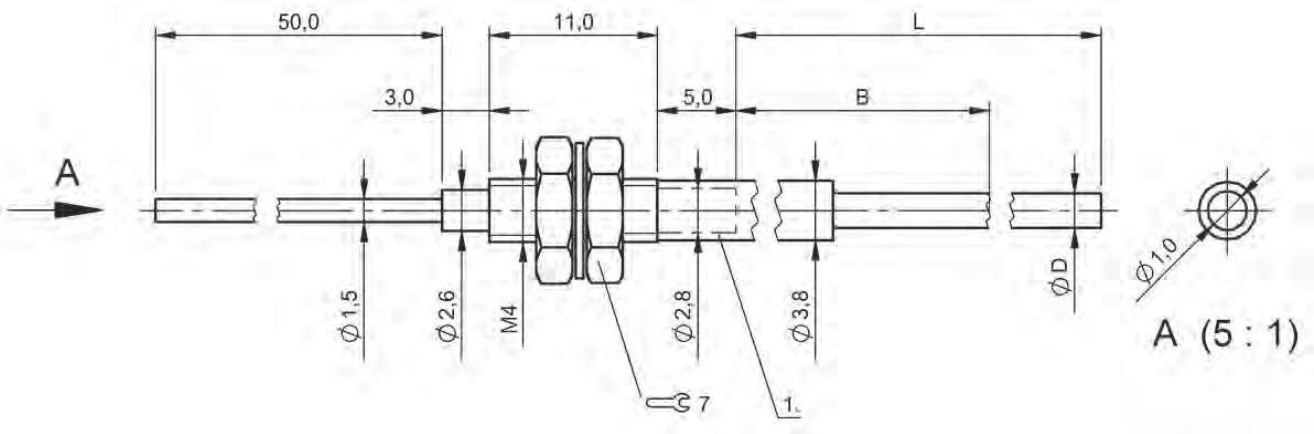
1) Protective tube

BFO005T



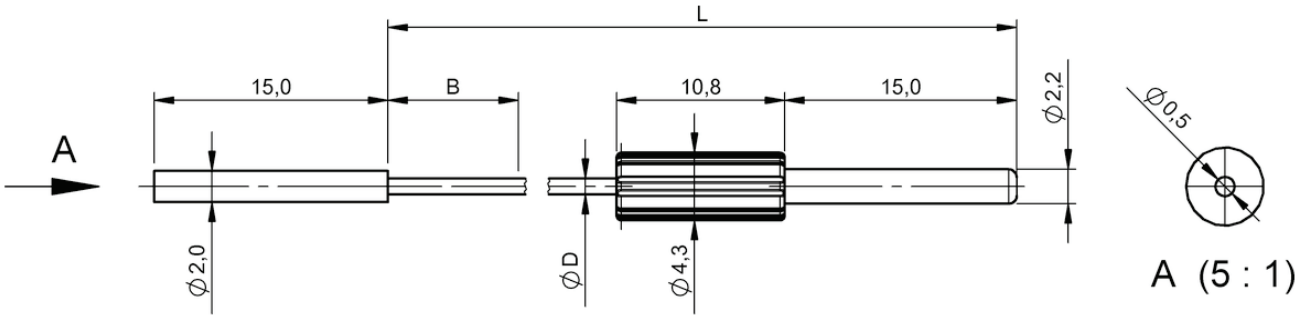
1) Protective tube

BF0005W

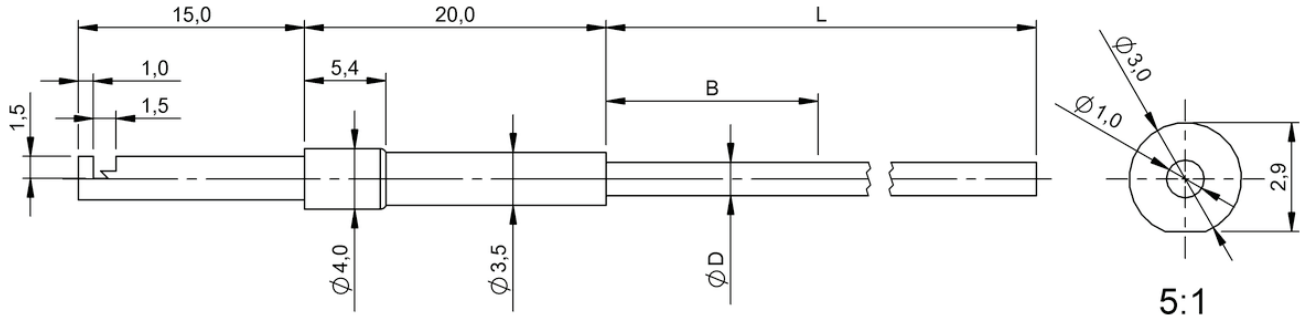


1) Protective tube

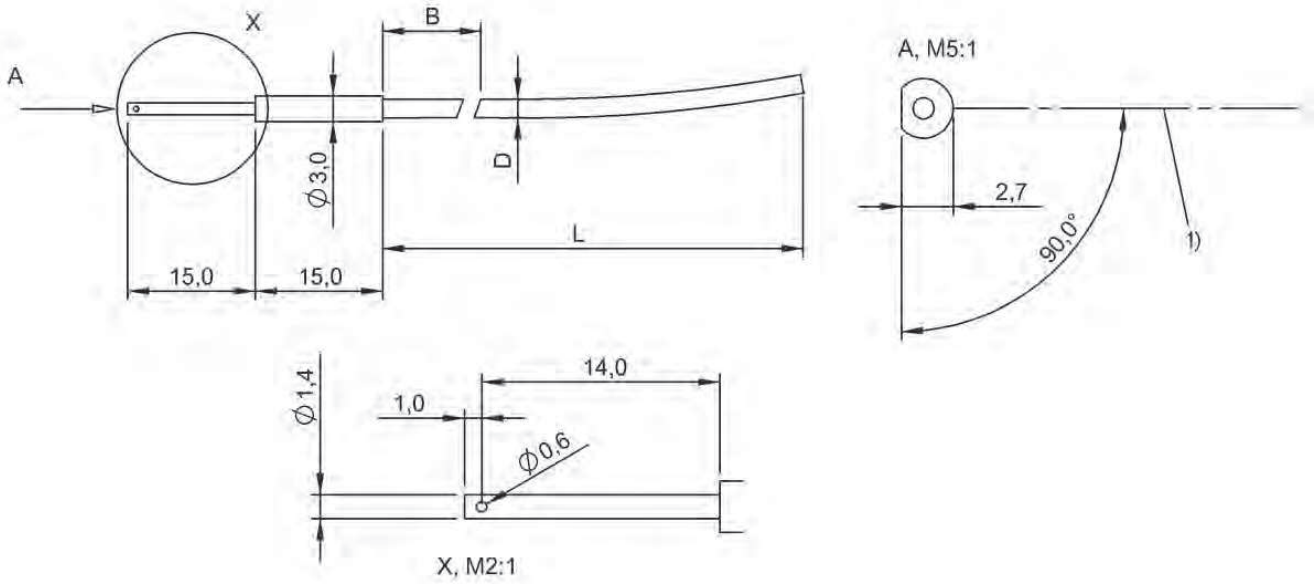
BF0005N



BFO0051

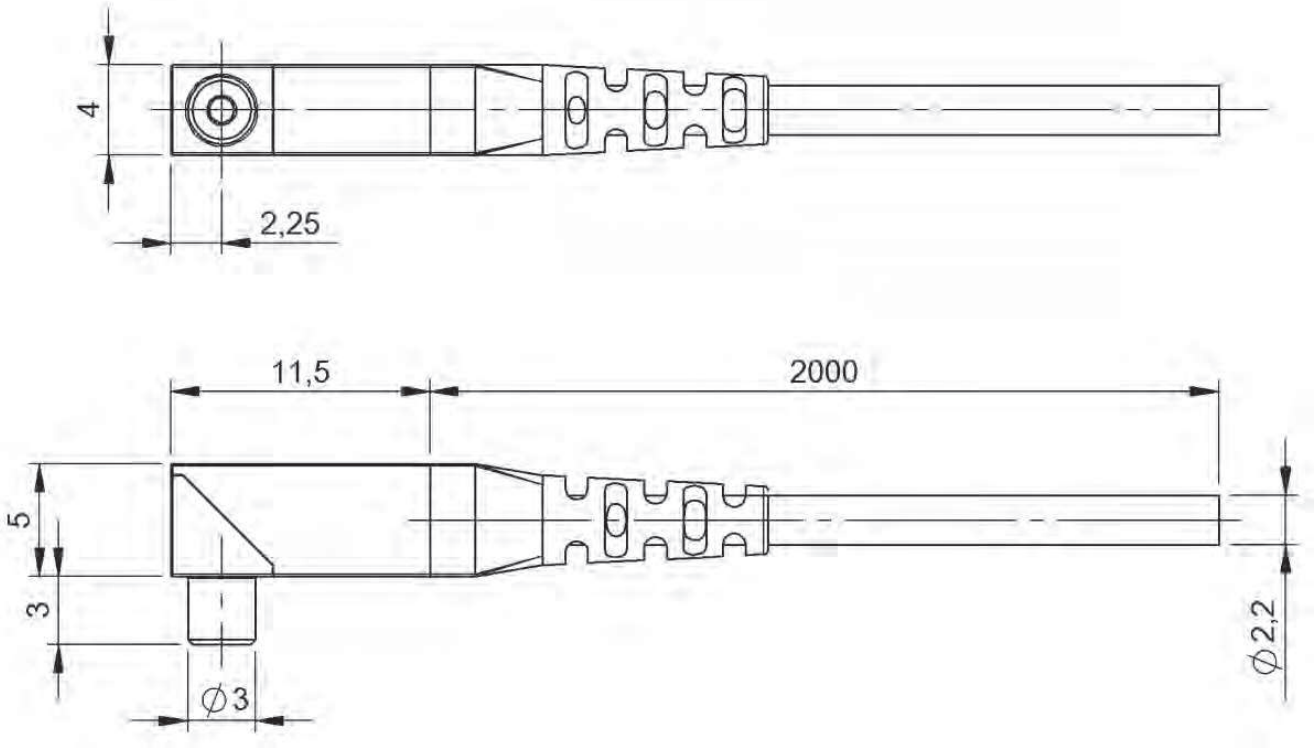


BFO00AY

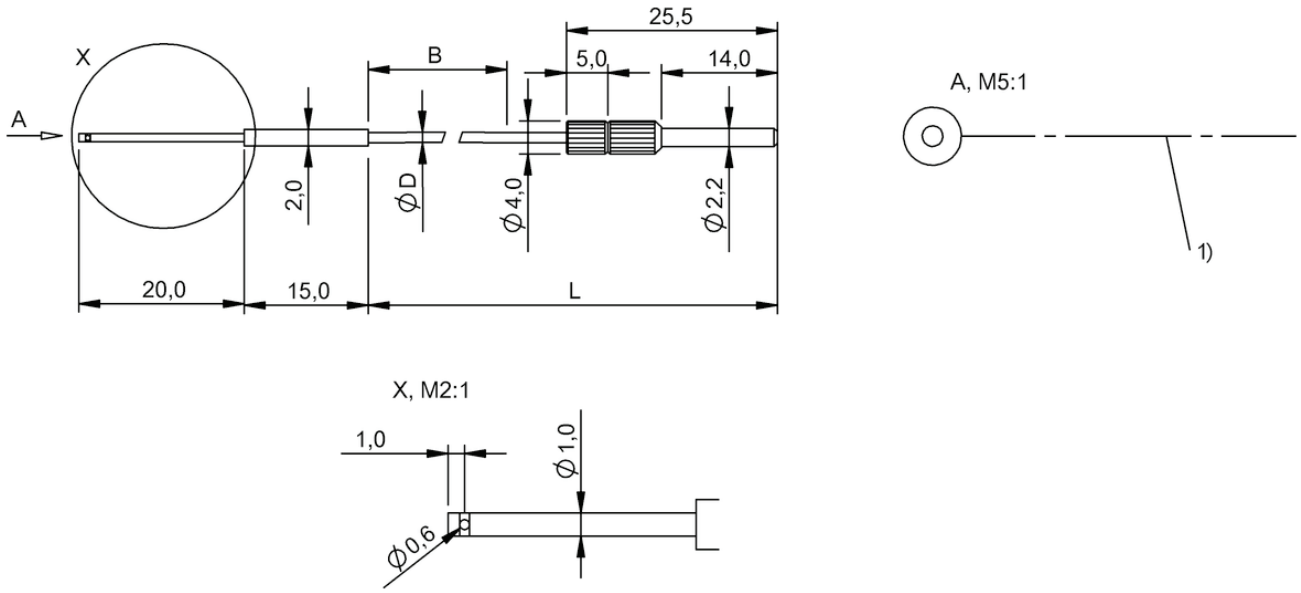


1) Optical axis

BF0005P

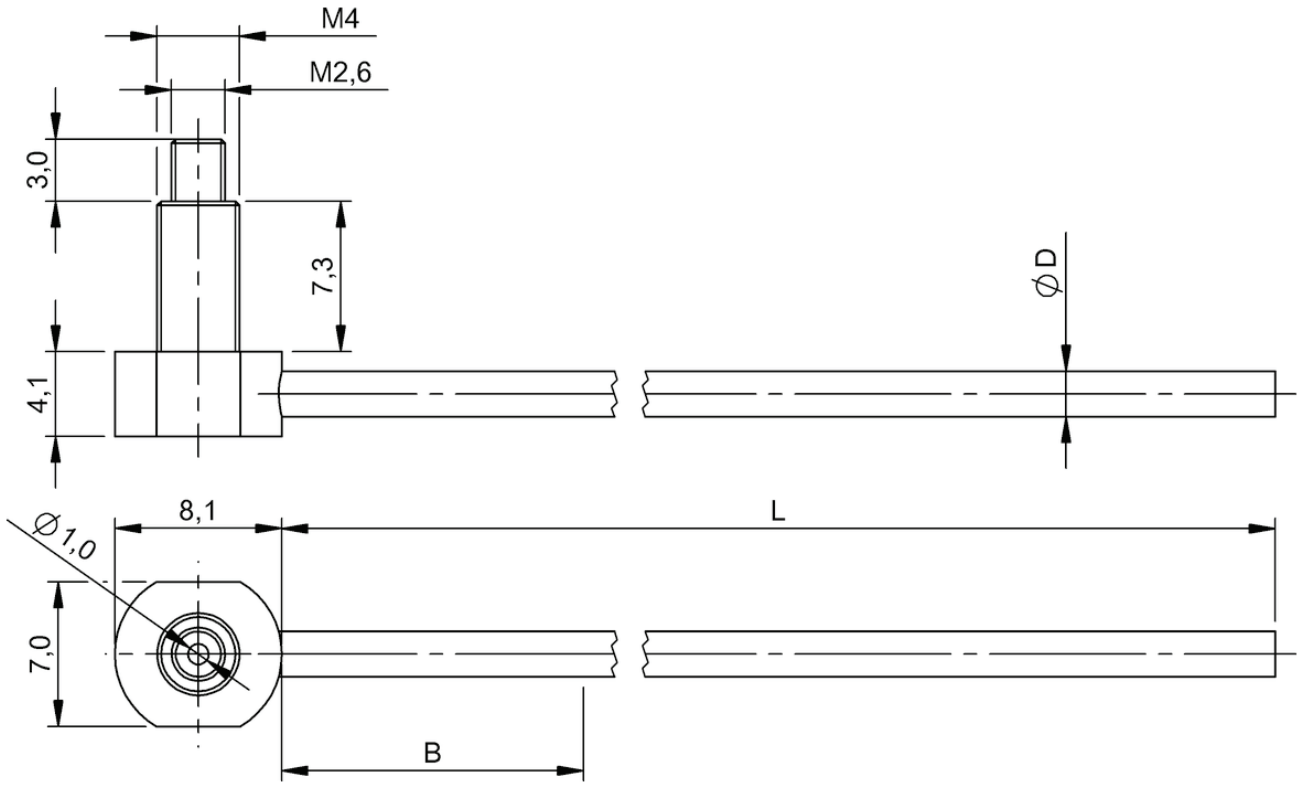


BF000H6



1) Optical axis

BF00056



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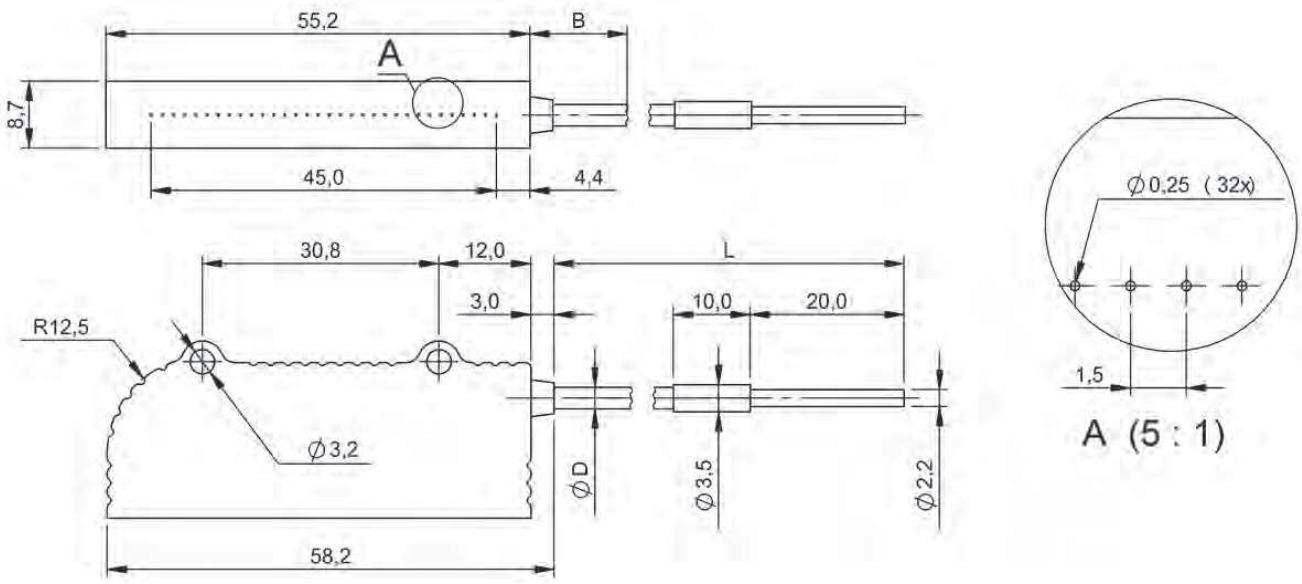

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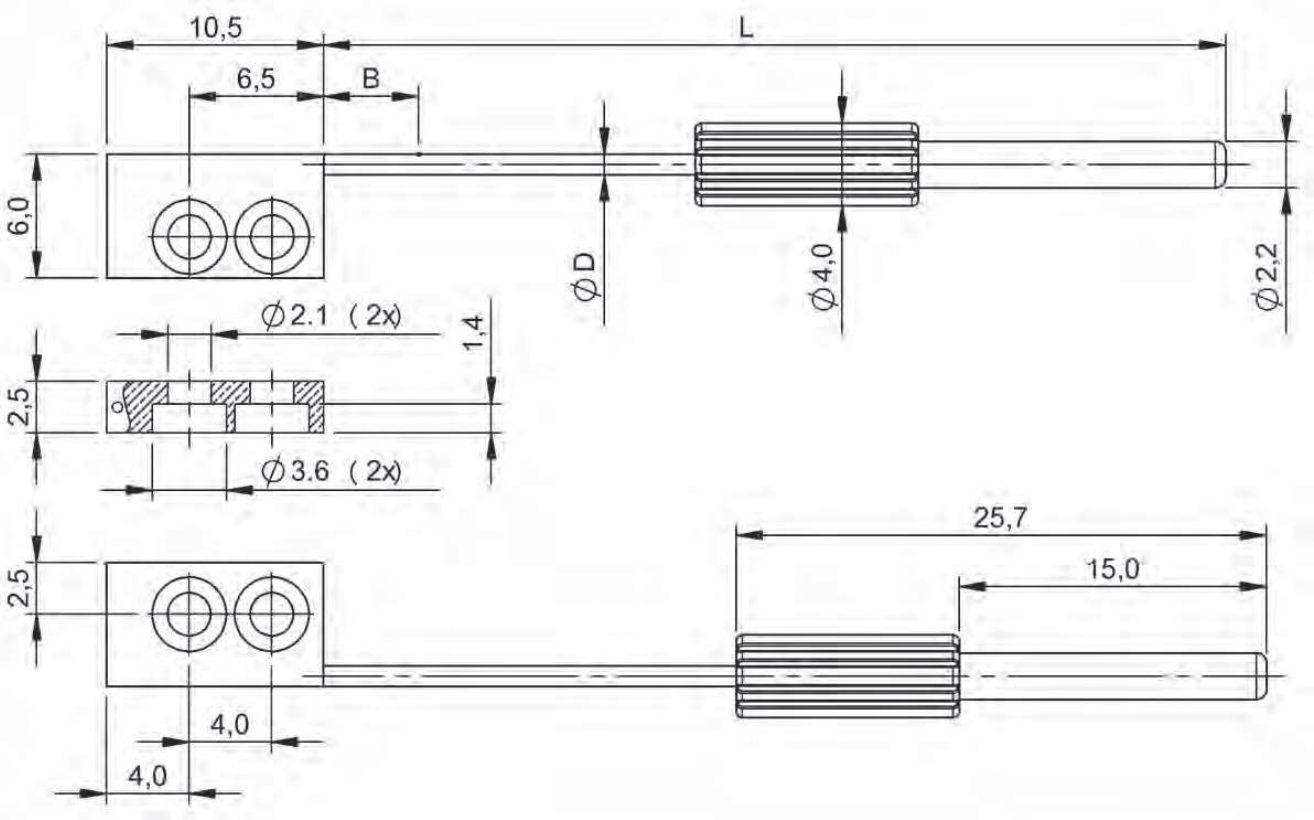
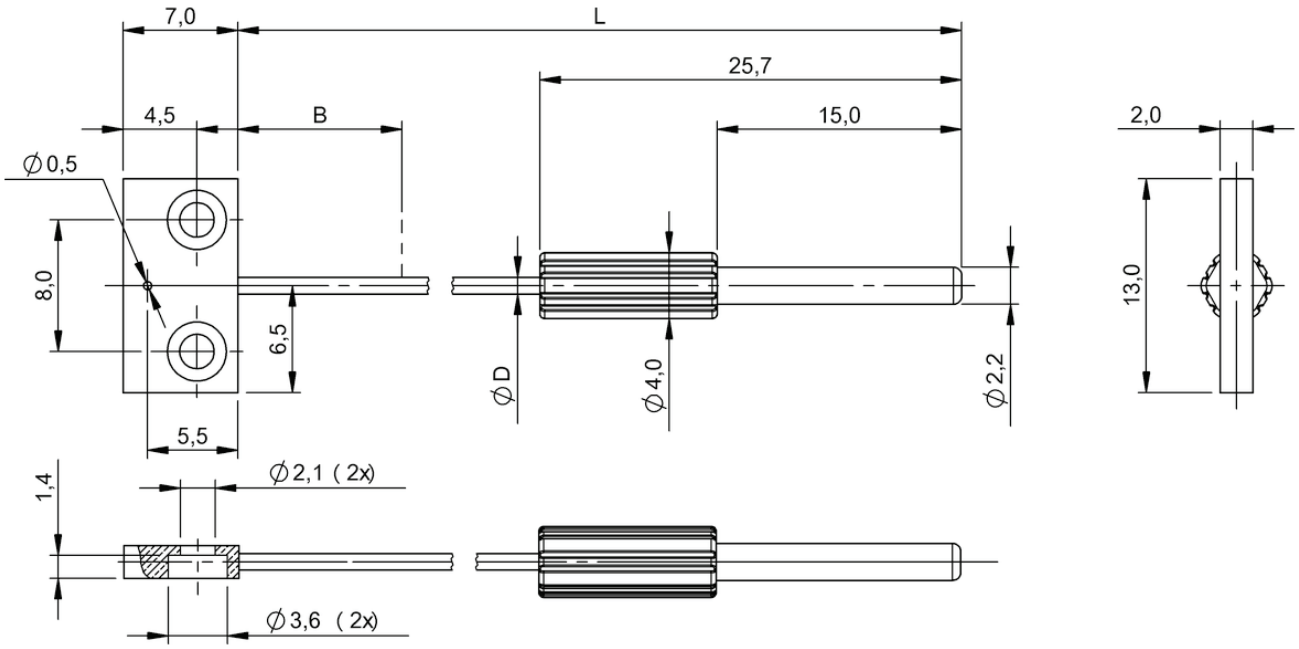
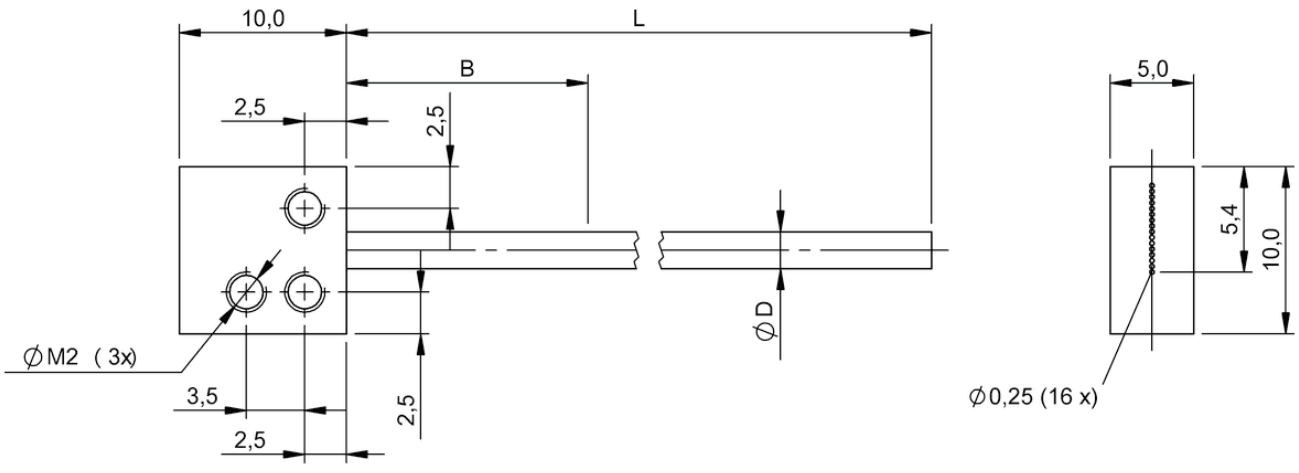


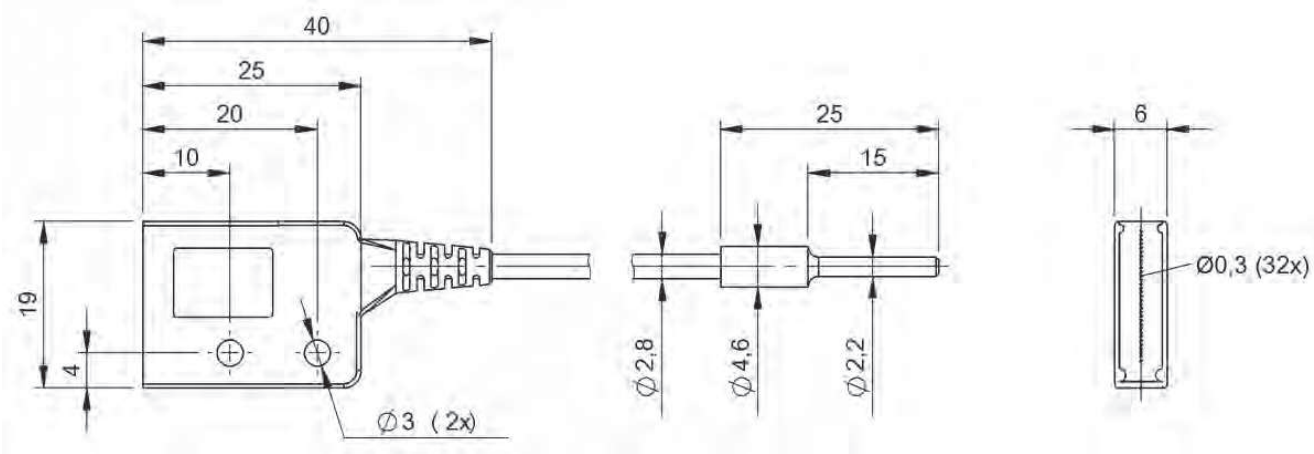
BF000C6



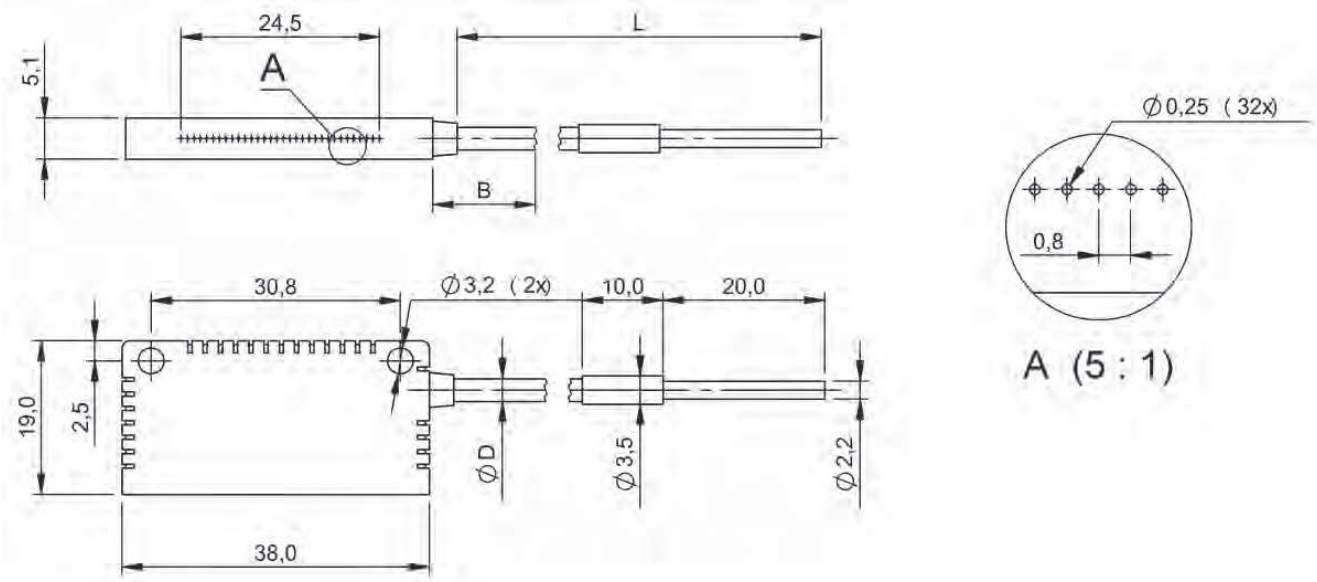
BF000C7



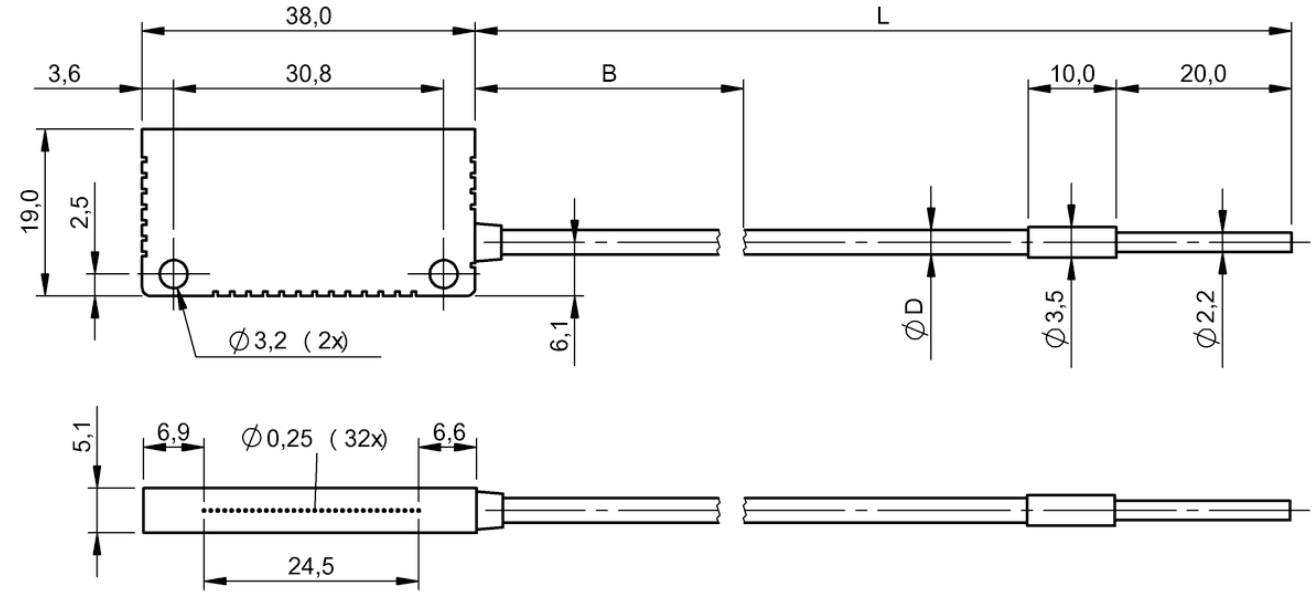
BF000AP



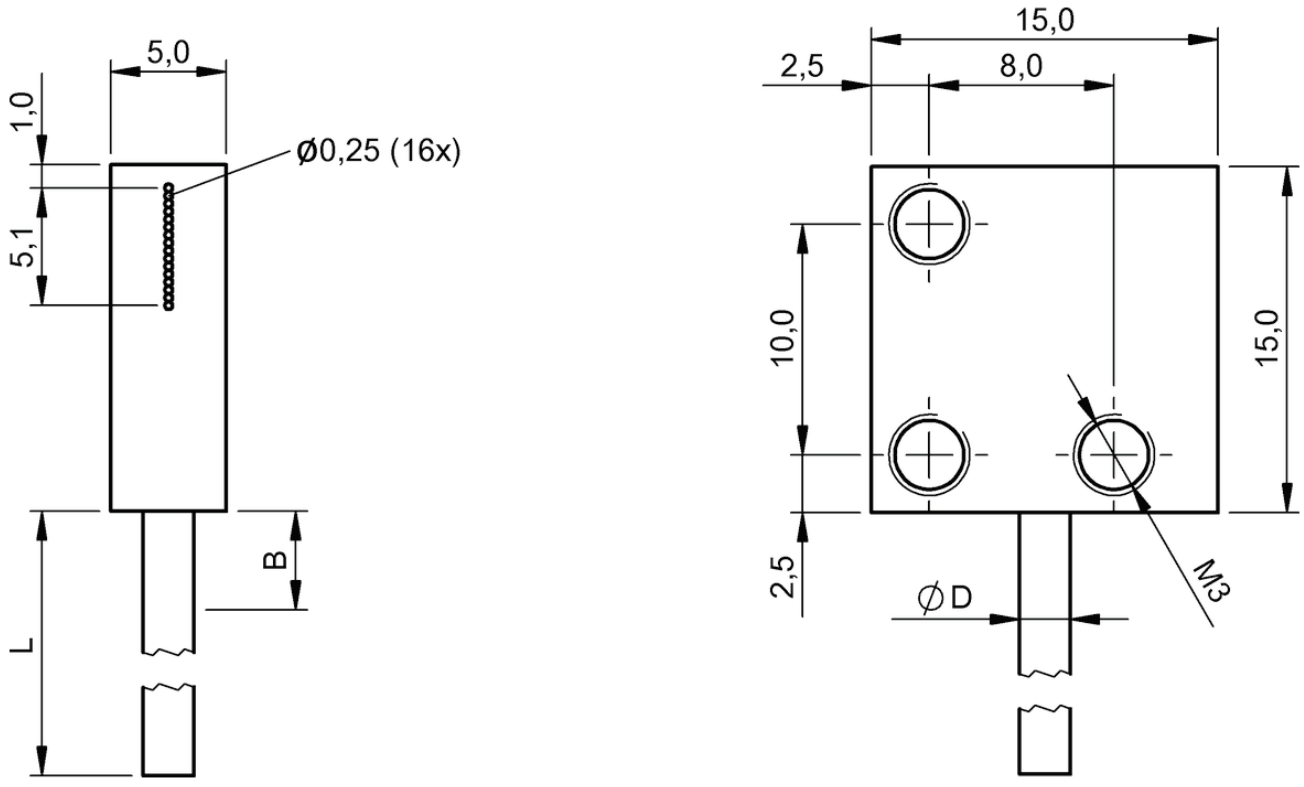
BF00067



BF000C5



BF00068



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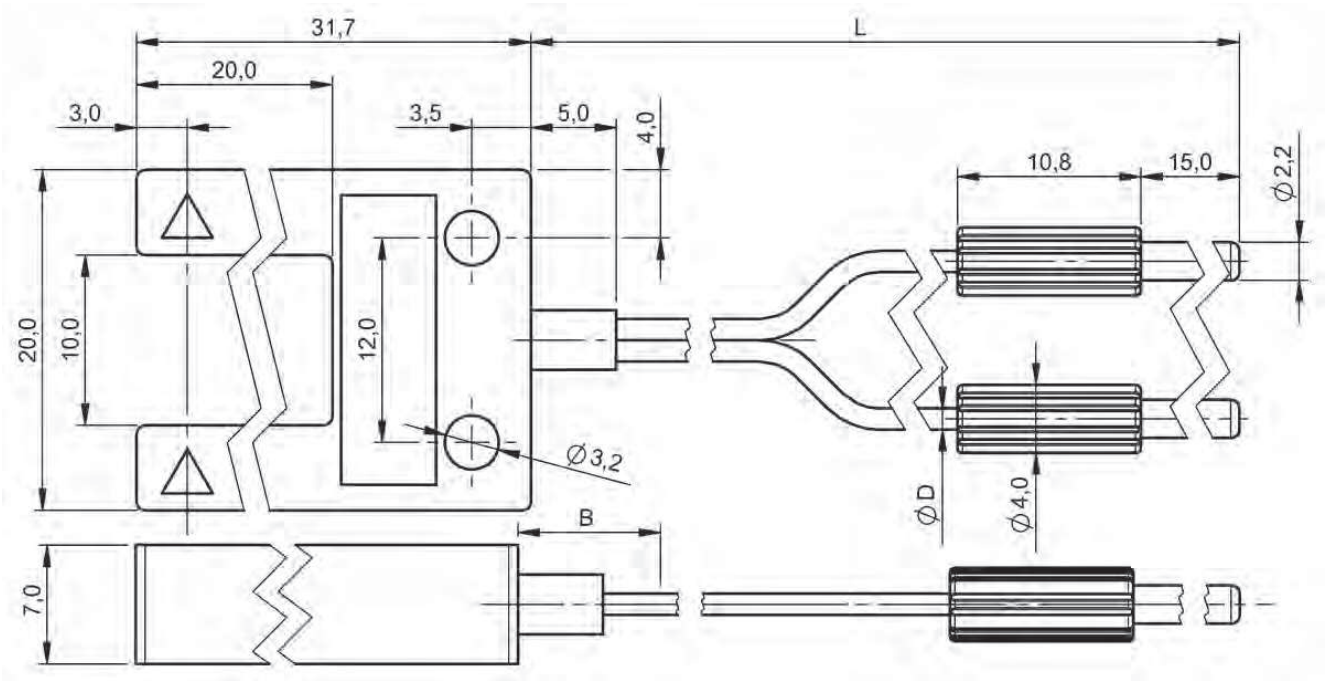
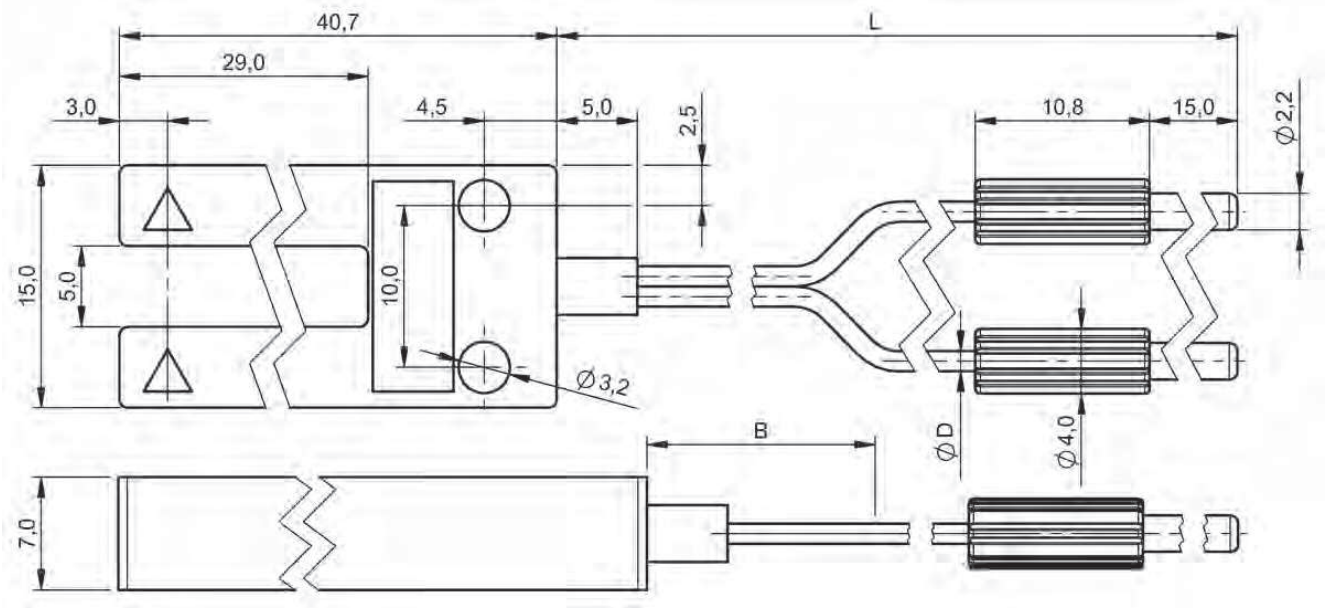
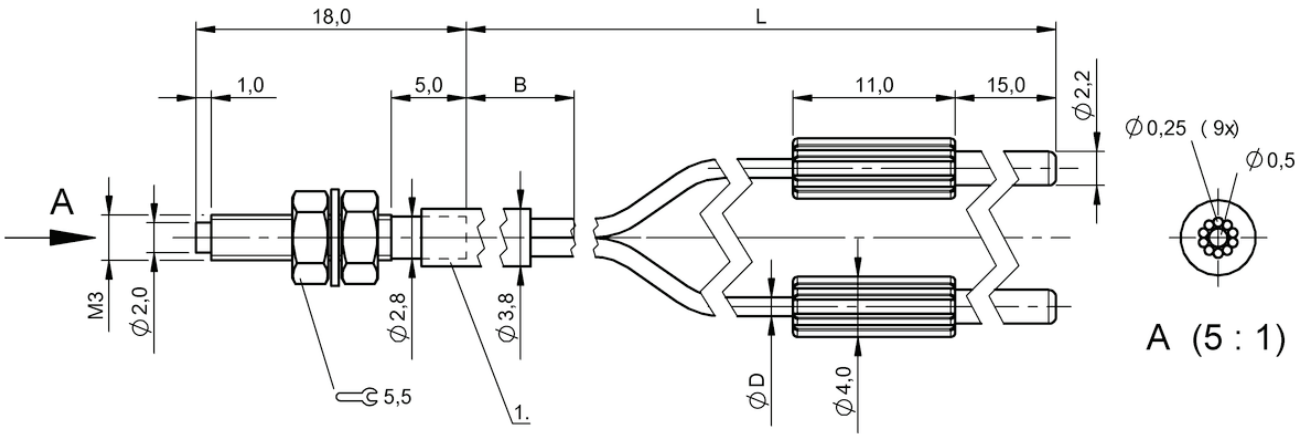


BF00059

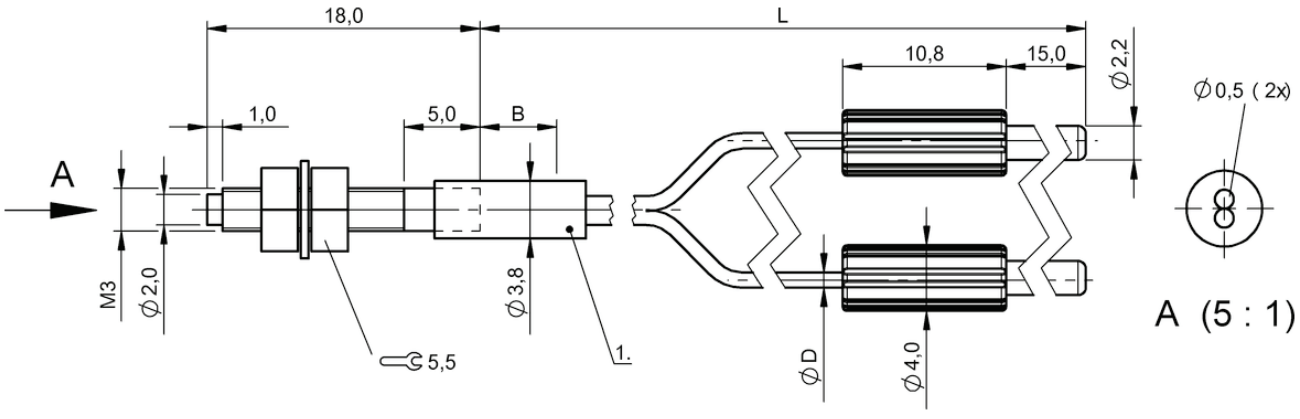


BF00058



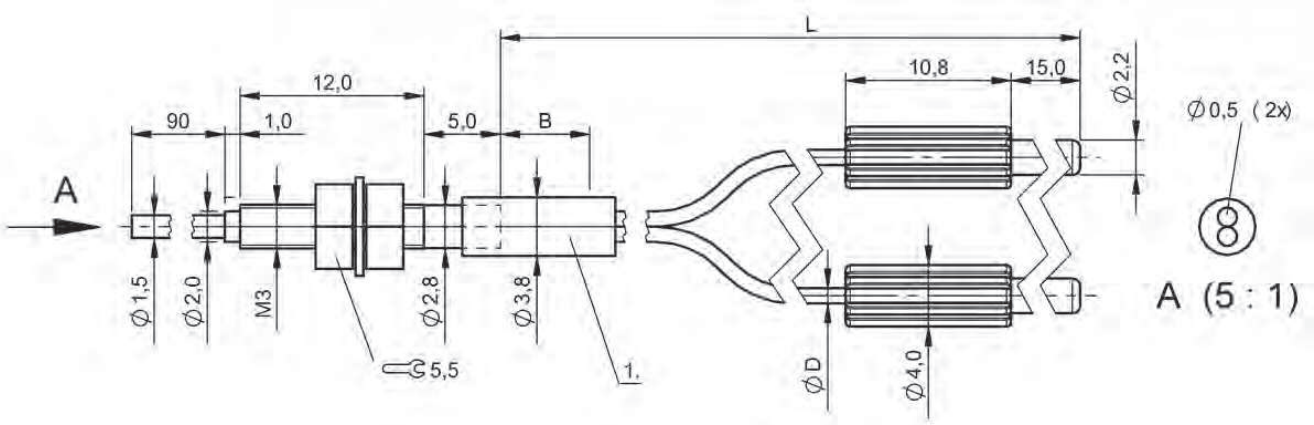
1) Protective tube

BFO005E



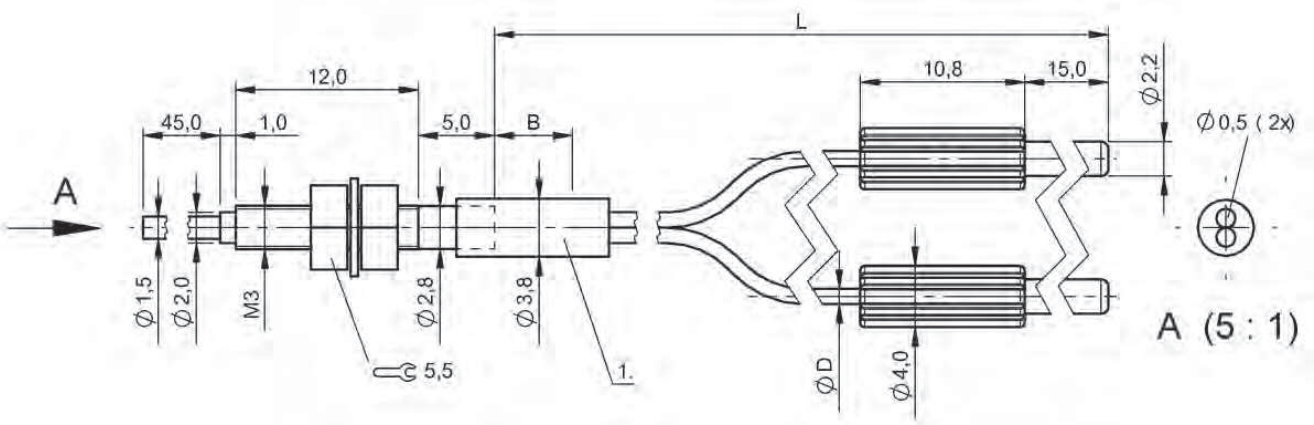
1) Protective tube

BFO0054



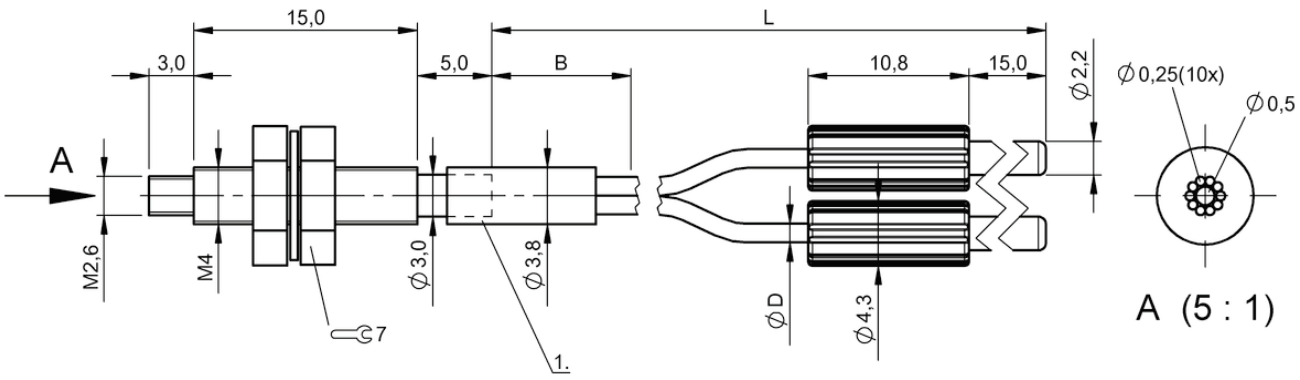
1) Protective tube

BF000C3



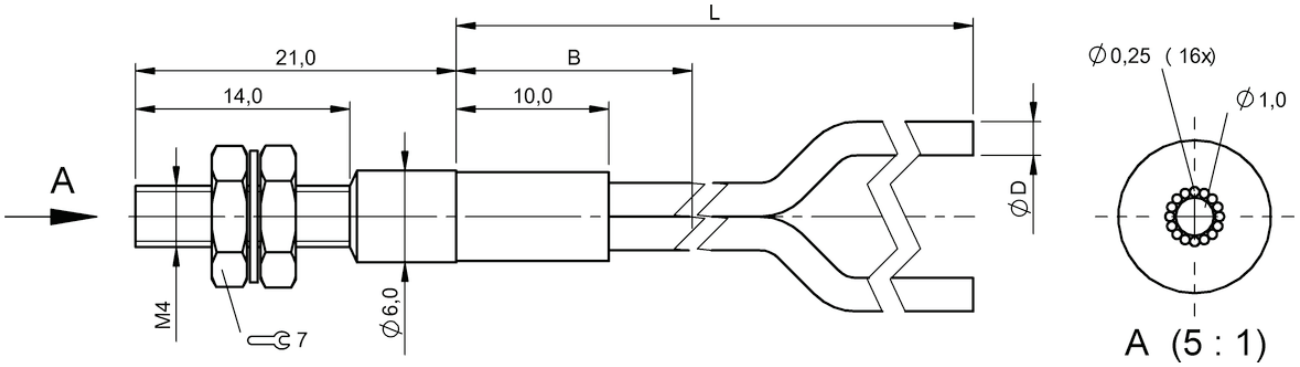
1) Protective tube

BF00052

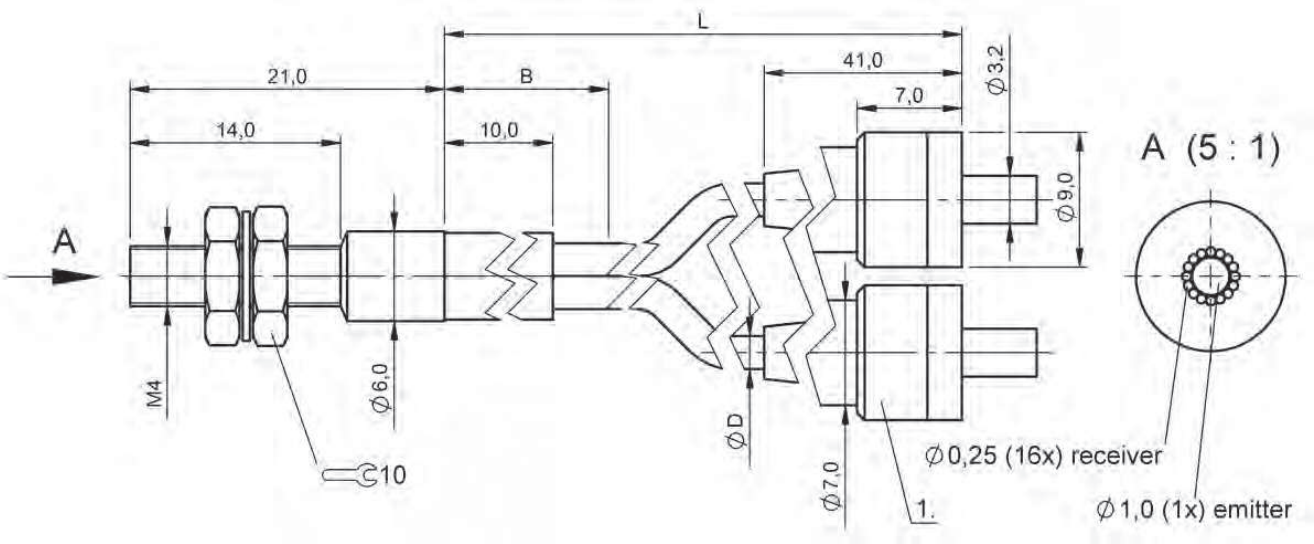


1) Protective tube

BFO005C

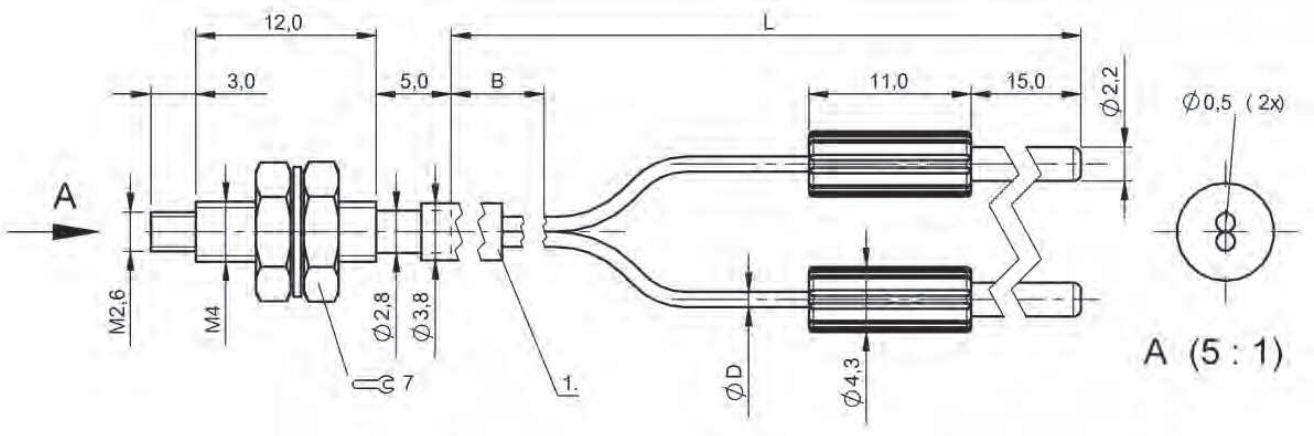


BFO0006



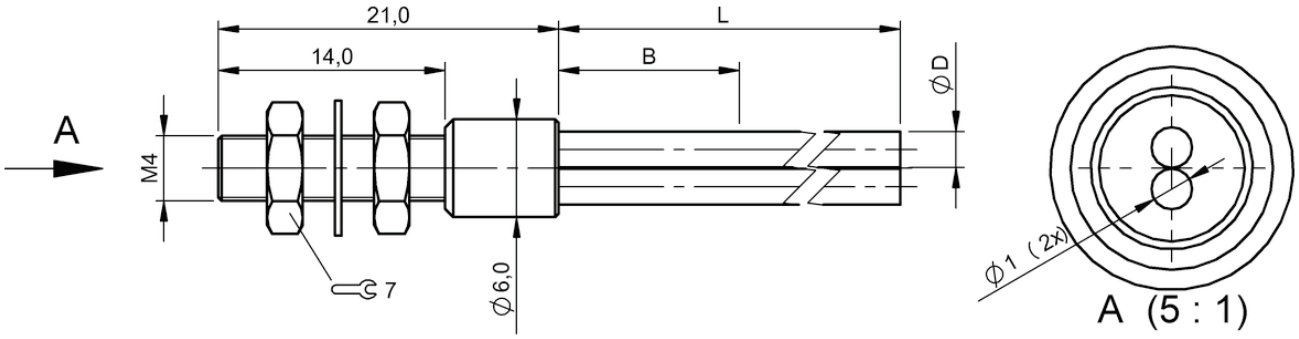
1) SMA 905

BF000C9

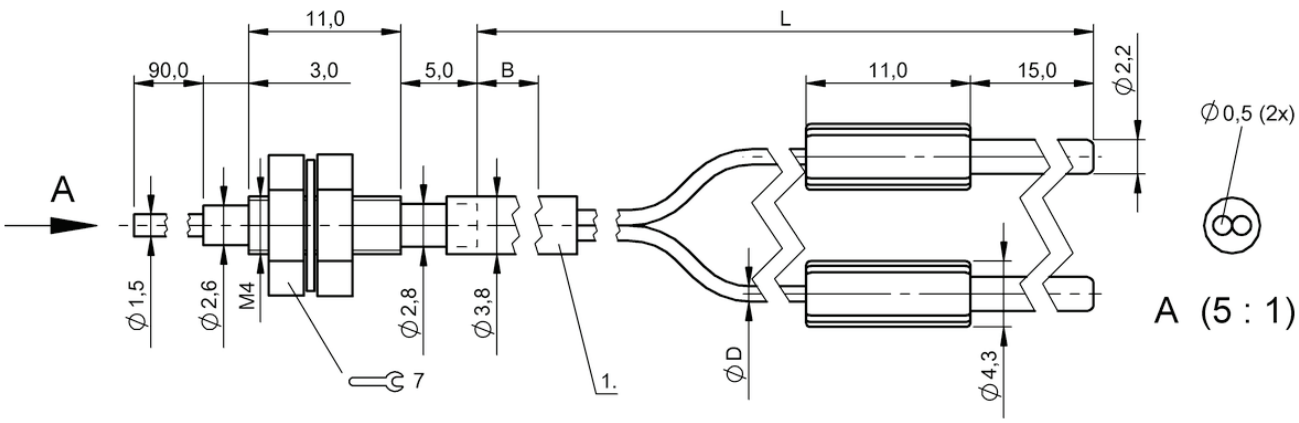


1) Protective tube

BF00055

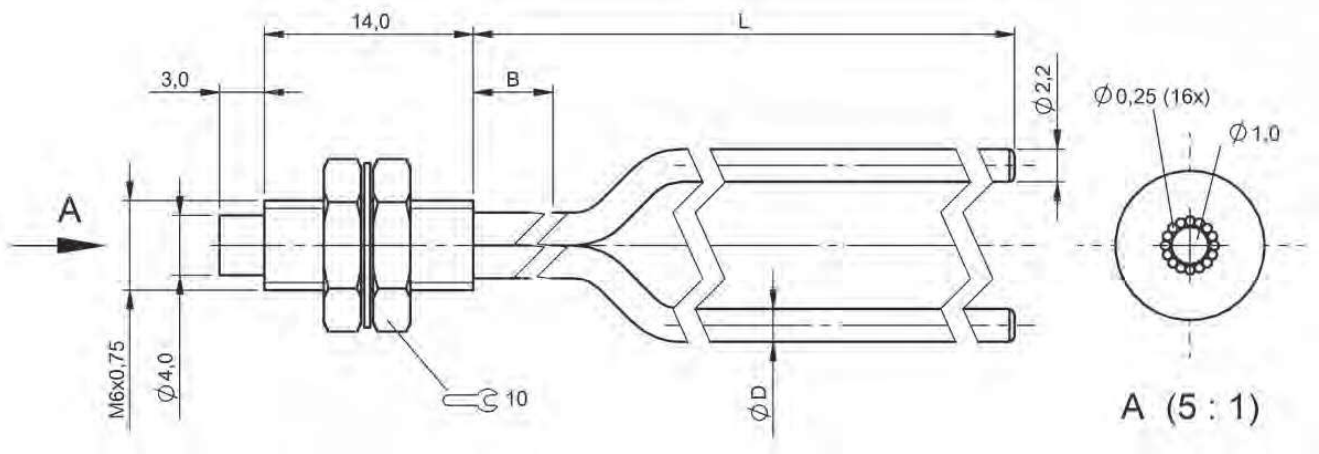


BF00005



1) Protective tube

BF00053



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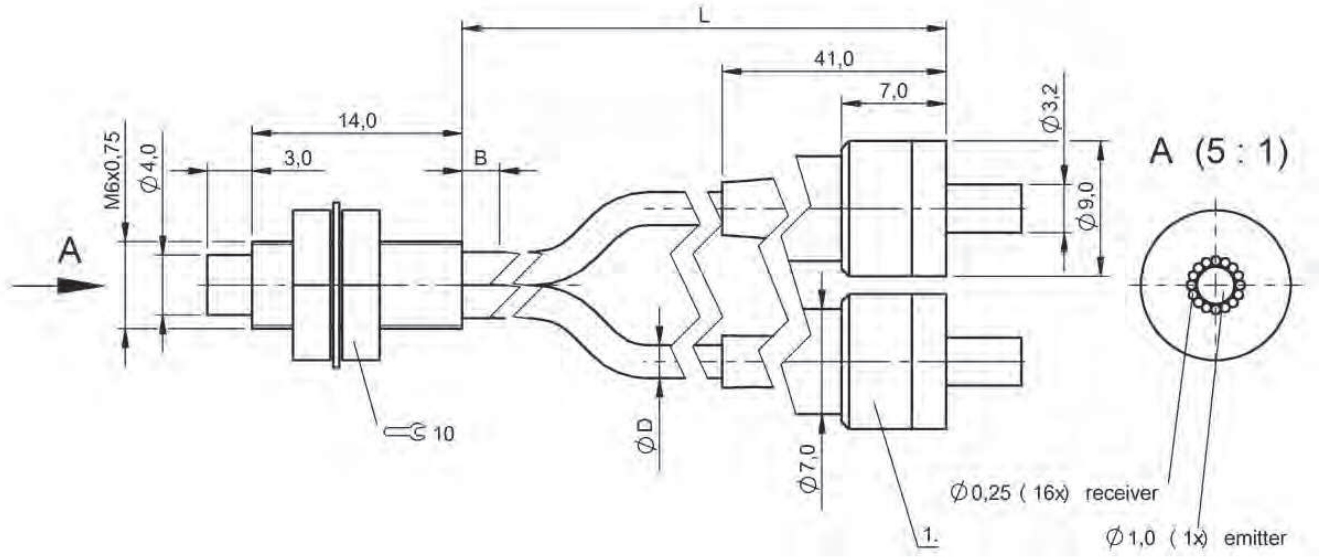
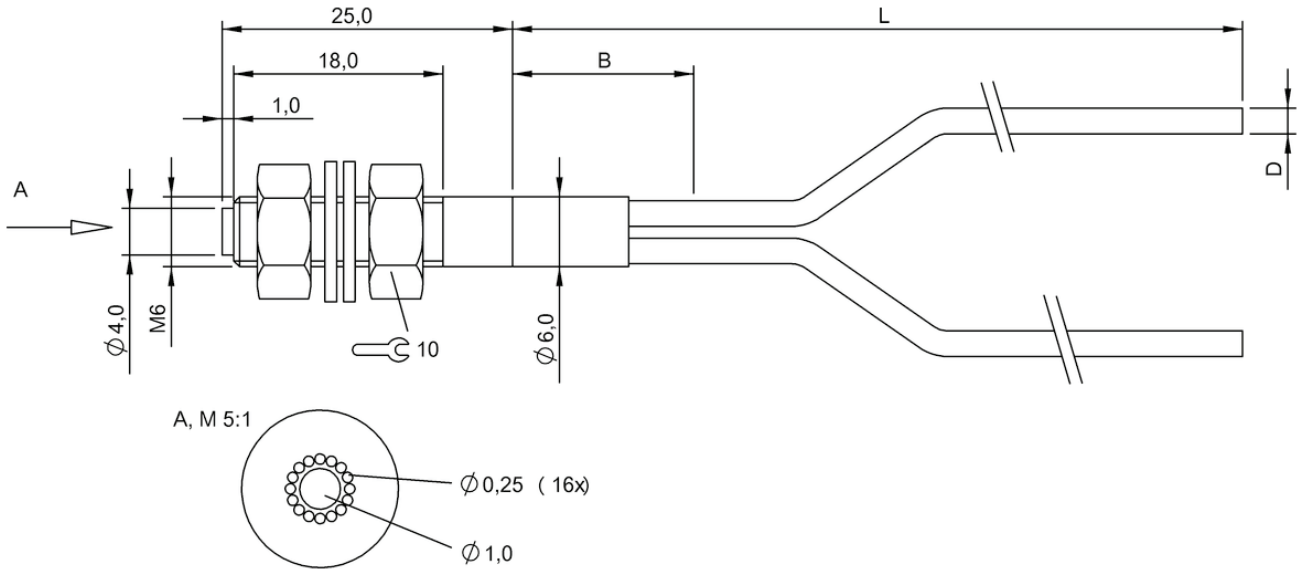
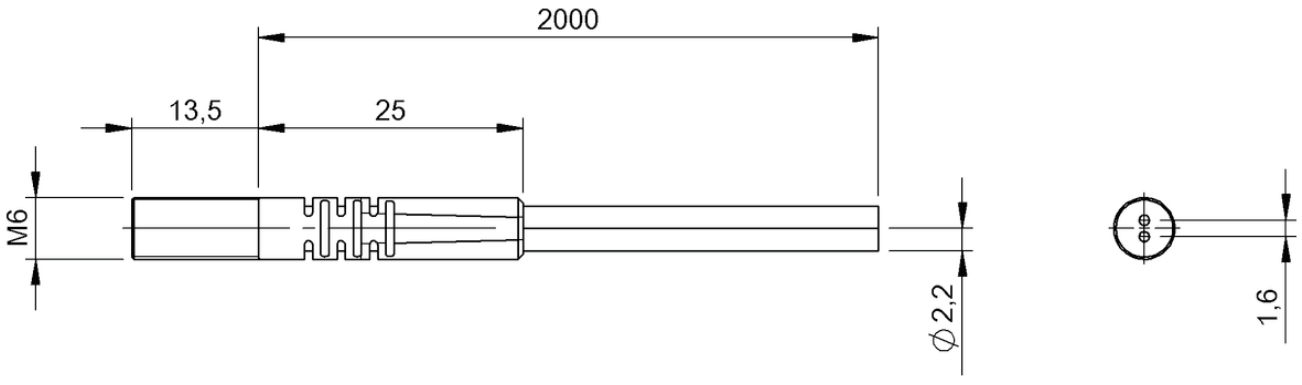


1) SMA 905

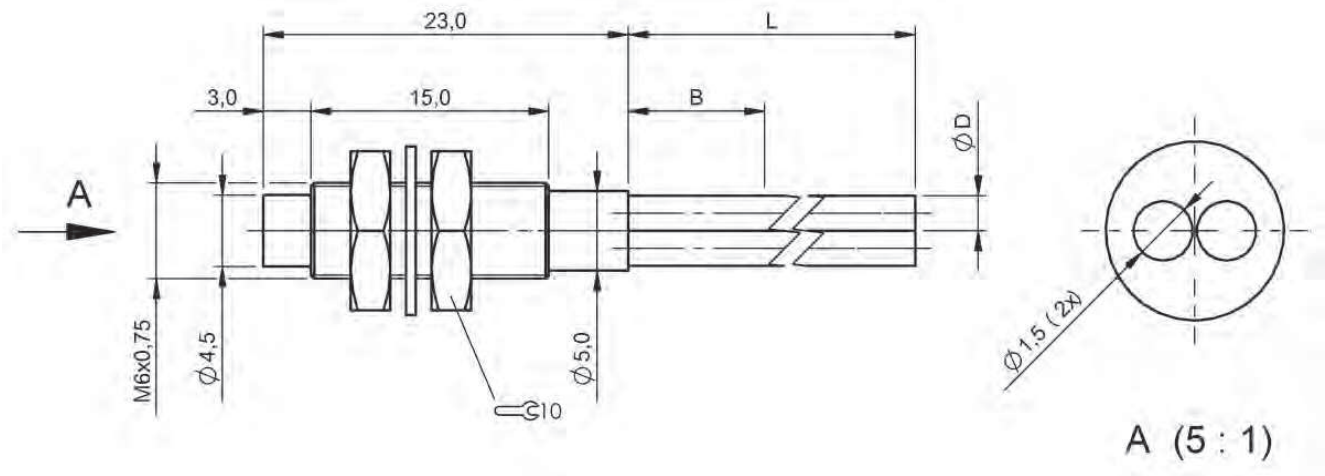
BF000H4, BF000FP, BF000C4, BF000FN



BFO00007



BFO00H5



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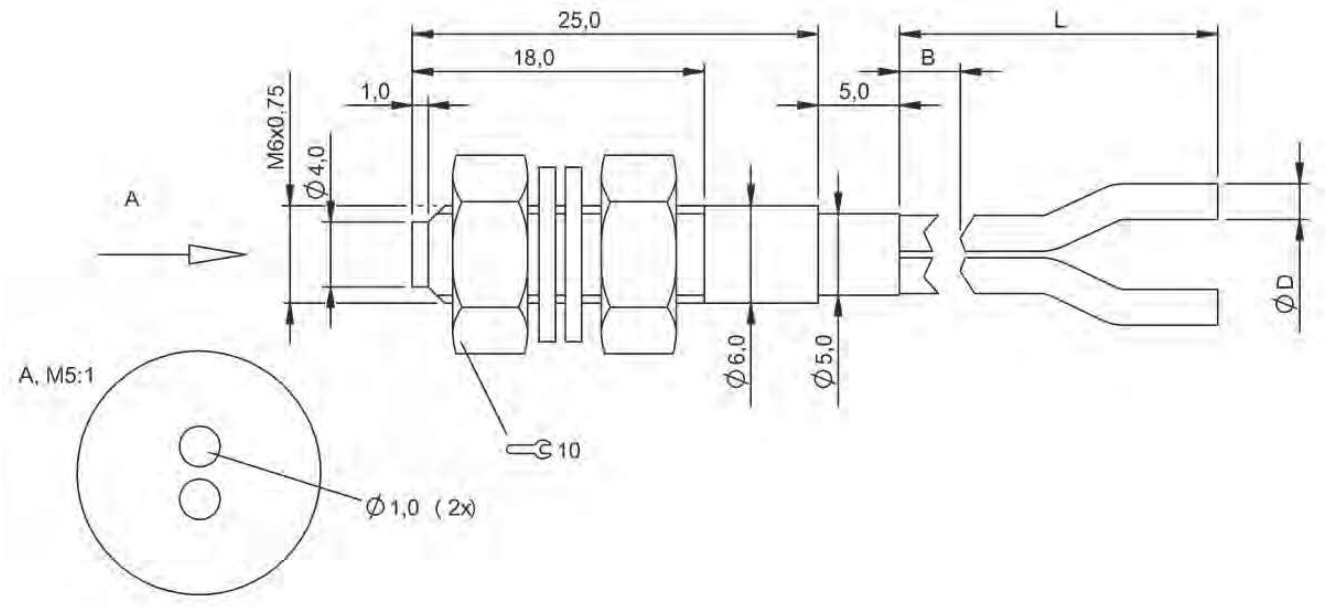
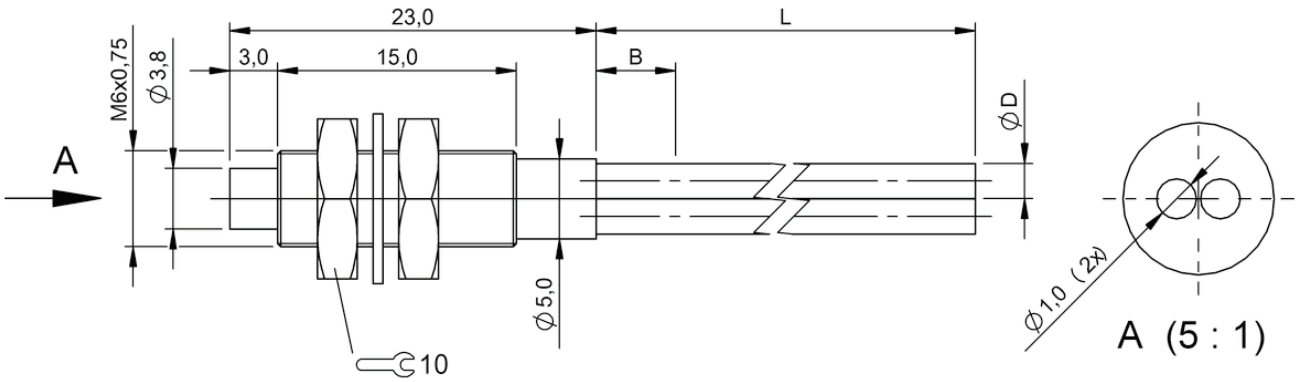
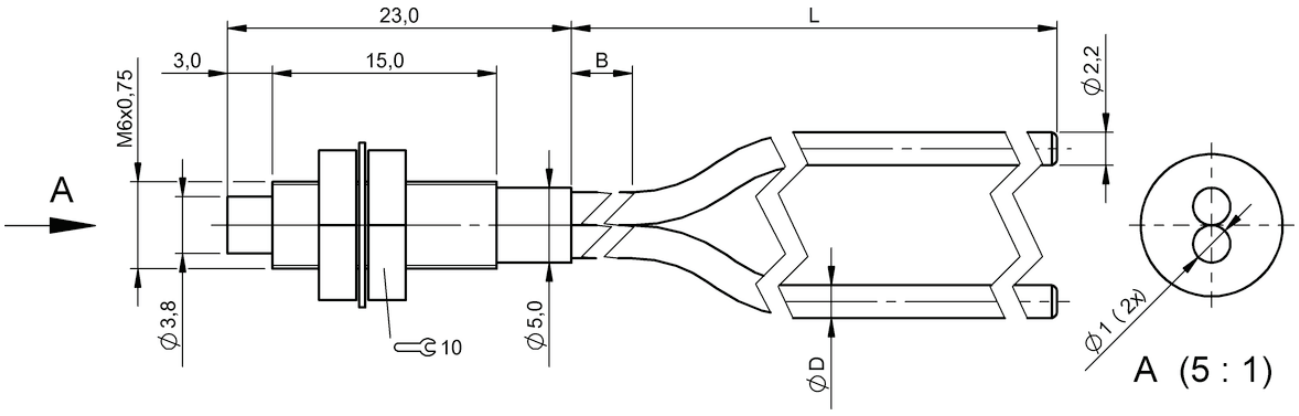


BF00003



BF00063



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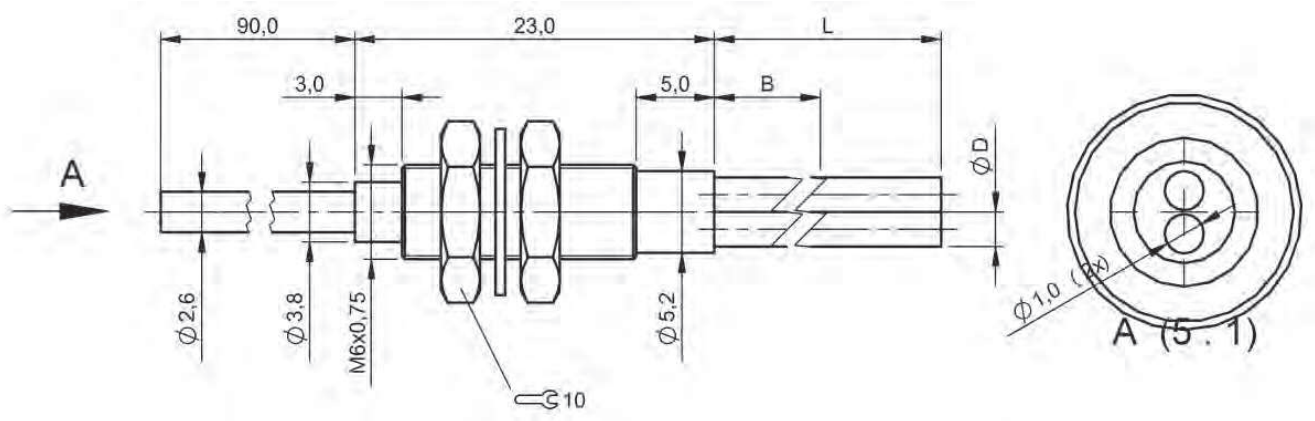
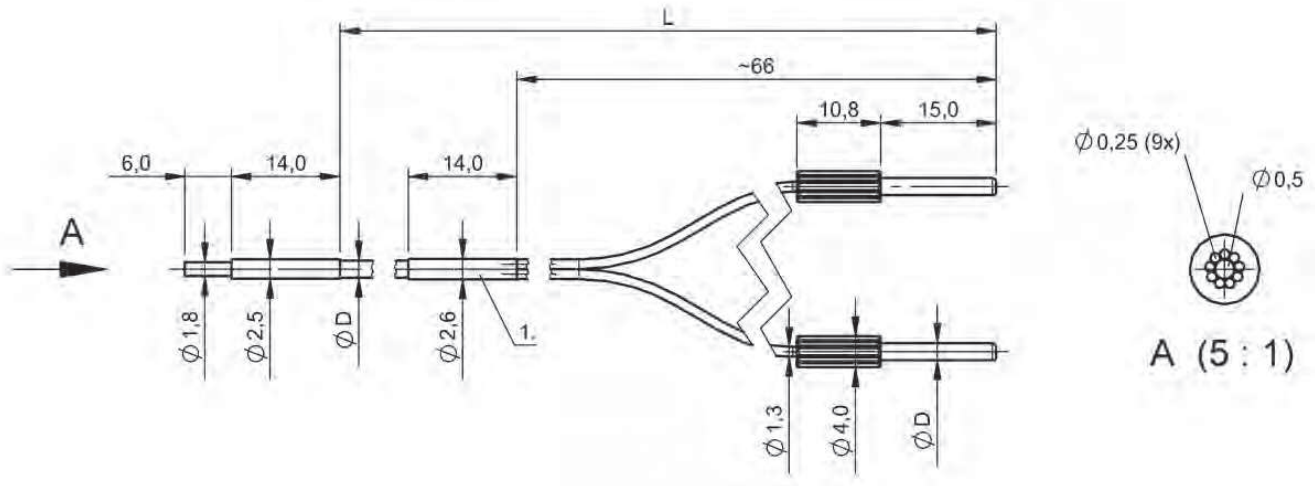
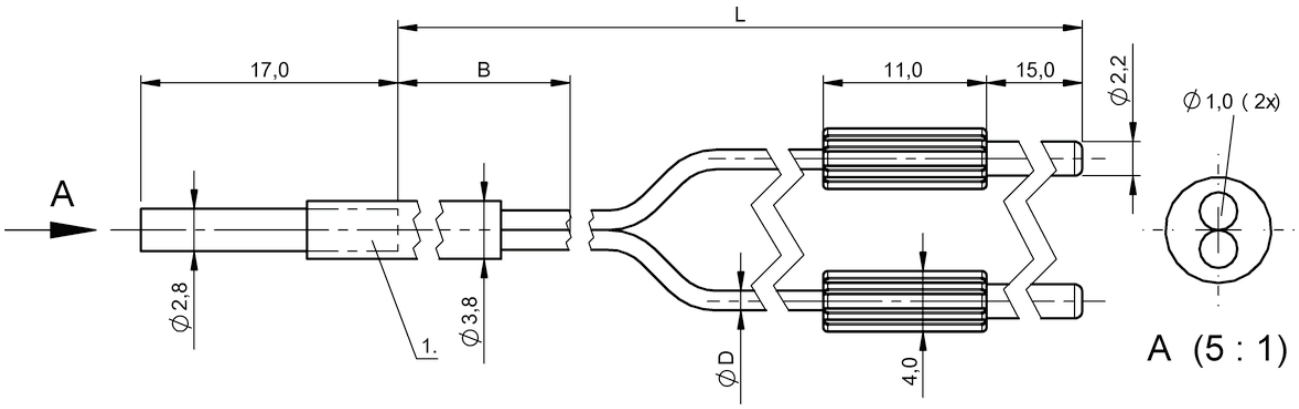


BF00004



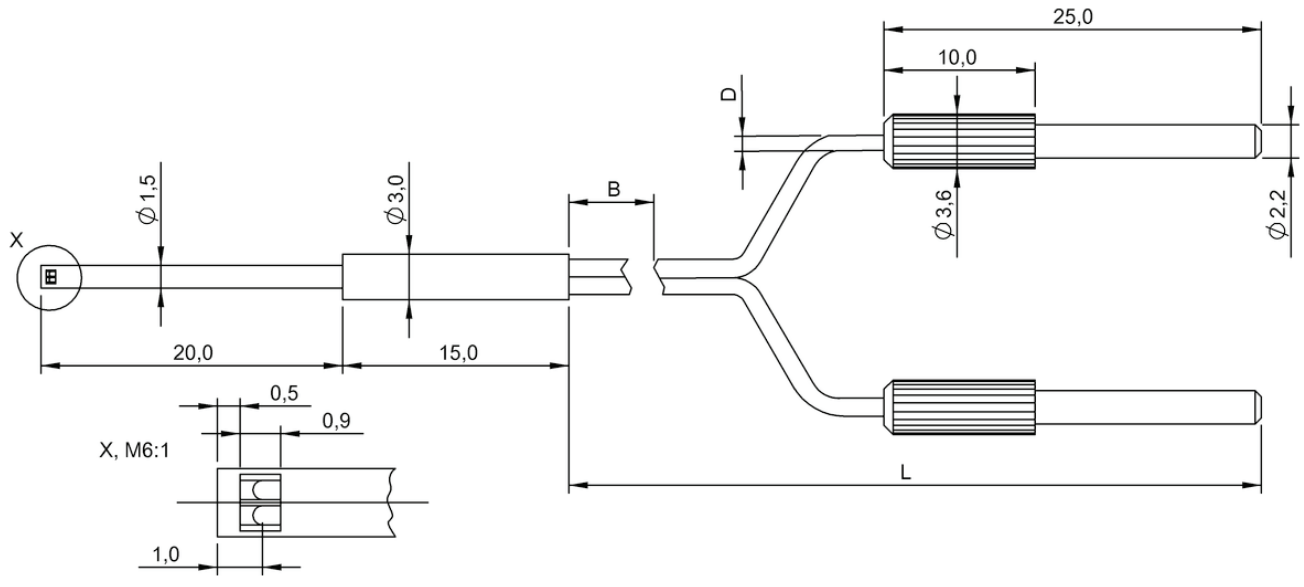
1) Protective tube

BF000AT

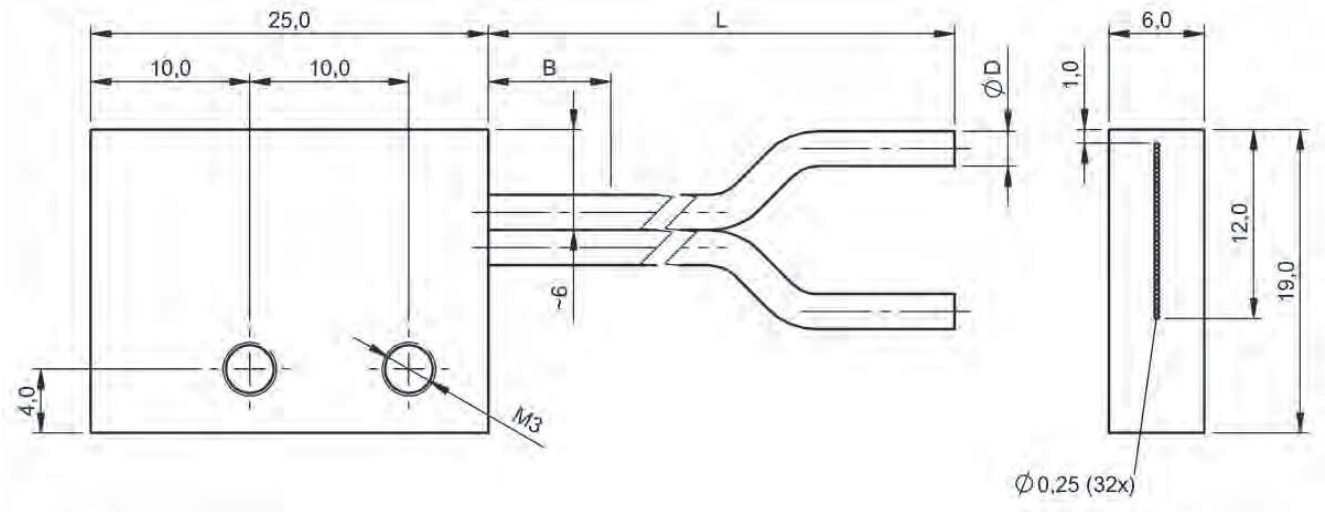


1) Protective tube

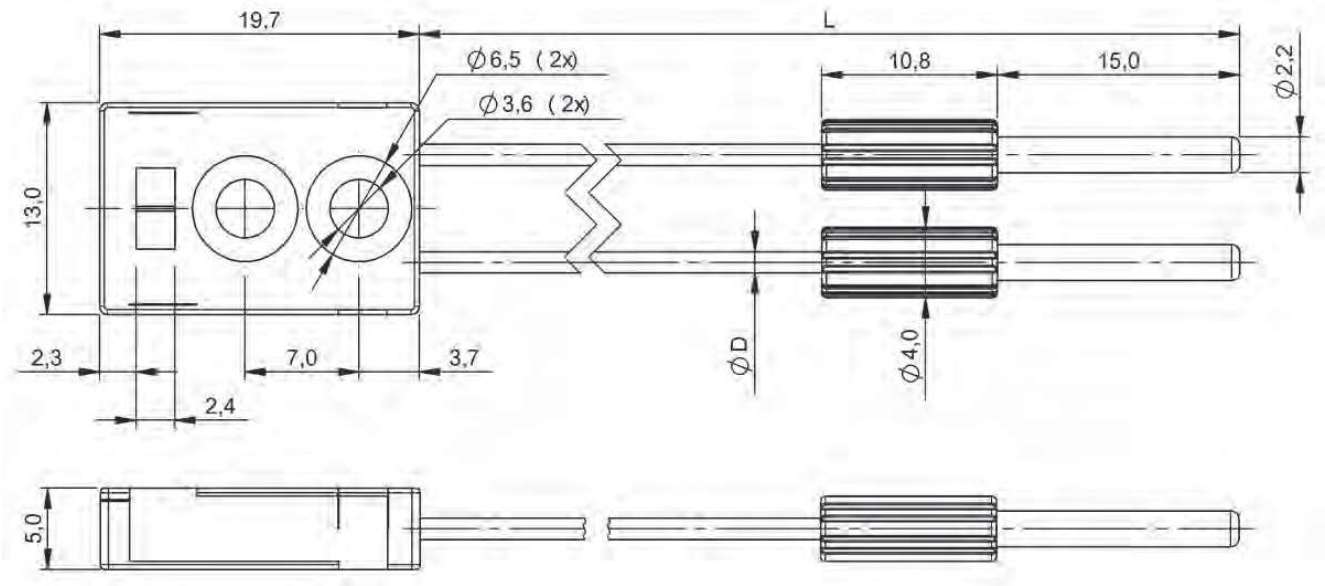
BFO005A



BFO0062



BF0005Z



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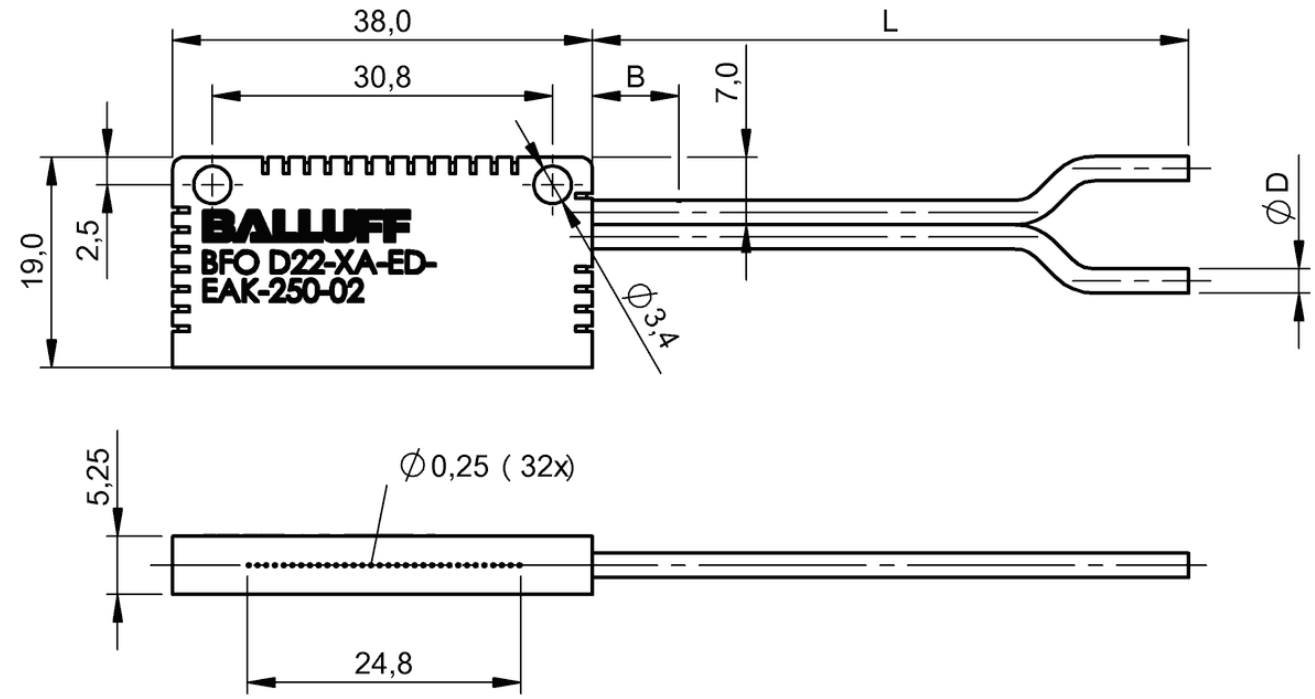
38,0
L
30,8
B
7,0
19,0
2,5
BALLUFF
BFO D22-XA-ED-
EAK-250-02
⌀D
⌀3,4
5,25
⌀0,25 (32x)
24,8

BFO0060



	BOH00F5 BOH AI-R028-034-01-S49F	BOH00F6 BOH AI-R051-035-01-S49F	BOH00F7 BOH AI-R073-036-01-S49F	
Series	—	—	—	
Dimension	11 x 9 x 25 mm	11 x 9 x 46 mm	11 x 9 x 66 mm	
Application	—	—	—	
Interface	—	—	—	
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 array	Light array	Light array	
Beam characteristic	—	—	—	
Light type	LED infrared	LED infrared	LED infrared	
Light spot size	—	—	—	
Active length AL 1	10 mm	30 mm	50 mm	
Range	10...300 mm	10...500 mm	10...500 mm	
Connection	Cable with connector, M8x1-Female, 3-pin, 1 m, PUR	Cable with connector, M8x1-Female, 3-pin, 1 m, PUR	Cable with connector, M8x1-Female, 3-pin, 1 m, PUR	
Housing material	PA 6	PA 6	PA 6	
Material sensing surface	PMMA	PMMA	PMMA	
Approval/Conformity	—	—	—	
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	BOH00FF BOH AI-R180-037-02-S49F	BOH00FH BOH AI-R264-038-02-S49F	BOH00FJ BOH AI-R396-039-02-S49F	BOH00FK BOH AI-R484-040-02-S49F	BOH00FL BOH AI-R704-041-02-S49F
	–	–	–	–	–
	18 x 10 x 100 mm	22 x 10 x 120 mm	22 x 11 x 180 mm	22 x 14 x 220 mm	22 x 14 x 320 mm
	–	–	–	–	–
	–	–	–	–	–
	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 array	Light array	Light array	Light array	Light array
	–	–	–	–	–
	LED infrared	LED infrared	LED infrared	LED infrared	LED infrared
	–	–	–	–	–
	80 mm	100 mm	160 mm	200 mm	300 mm
	10...500 mm	10...500 mm	10...500 mm	10...500 mm	10...500 mm
	Cable with connector, M8x1-Female, 3-pin, 2 m, PUR	Cable with connector, M8x1-Female, 3-pin, 2 m, PUR	Cable with connector, M8x1-Female, 3-pin, 2 m, PUR	Cable with connector, M8x1-Female, 3-pin, 2 m, PUR	Cable with connector, M8x1-Female, 3-pin, 2 m, PUR
	Aluminum, anodized, black	Aluminum, anodized, black	Aluminum, anodized, black	Aluminum, anodized, black	Aluminum, anodized, black
	PMMA	PMMA	PMMA	PMMA	PMMA
	–	–	–	–	–
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	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	
Application	—	—	—	
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	—	
Active length AL 1	—	—	—	
Range	0...300 mm	0...500 mm	0...300 mm	
Connection	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Material sensing surface	Epoxy	Epoxy	Epoxy	
Approval/Conformity	CE, WEEE	CE, WEEE	CE, WEEE	
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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
	Water detection	—	—	—	—
	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	—	—	—	—
	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-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR
	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	PMMA	Epoxy	Epoxy	Epoxy	Epoxy
	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE
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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	
Application	—	—	—	
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	—	
Active length AL 1	—	—	—	
Range	0...2000 mm	0...2000 mm	0...4 m	
Connection	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 2.00 m, PUR	
Housing material	Nickel-plated brass, nickel plated	Nickel-plated brass, nickel plated	Stainless steel	
Material sensing surface	PMMA	PMMA	PMMA	
Approval/Conformity	CE, WEEE	—	CE, WEEE	
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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	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
	—	—	—	—	—
	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-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR
	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
	Glass	PMMA	PMMA	PMMA	PMMA
	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE
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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	
Application	—	—	—	
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	
Active length AL 1	—	—	—	
Range	0...4 m	0...4 m	0...4 m	
Connection	Cable with connector, M8x1-Male, 2.00 m, PUR	Cable with connector, M8x1-Male, 2.00 m, PUR	Cable with connector, M8x1-Male, 2.00 m, PUR	
Housing material	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	
Material sensing surface	PMMA	Glass	Glass	
Approval/Conformity	CE, WEEE	CE, WEEE	CE, WEEE	
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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	12 x 6 x 6 mm	12 x 6 x 6 mm	12 x 6 x 6 mm	8 x 28 x 12 mm
	—	—	—	Water detection	—
	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	—	—	—
	—	—	—	—	18 mm
	0...1 m	0...2 m	0...1 m	0 m...500 mm	100 mm
	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1 m, PUR
	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass	PA 6
	PMMA	PMMA	PMMA	PMMA	PMMA
	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE
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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	
Application	—	—	Water detection	
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	—	—	
Active length AL 1	—	—	—	
Range	0 m...500 mm	0...4 m	0 m...900 mm	
Connection	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 2.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	
Housing material	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	
Material sensing surface	Epoxy	PMMA	PMMA	
Approval/Conformity	CE, WEEE	CE, WEEE	CE, WEEE	
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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	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 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	—
	—	—	—	—	30 mm
	0 m...500 mm	0 m...500 mm	0...2 m	0...2 m	0...200 mm
	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR
	Aluminum, anodized, natural	Aluminum, anodized, natural	Aluminum, anodized, natural	Aluminum, anodized, natural	Aluminum, anodized, black
	Glass	Glass	Glass	Glass	PMMA
	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE
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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	
Application	—	—	—	
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	—	—	—	
Active length AL 1	80 mm	—	—	
Range	0...500 mm	0...12 mm	0...12 mm	
Connection	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	
Housing material	Aluminum, anodized, black	Stainless steel	Stainless steel	
Material sensing surface	PMMA	Epoxy	Epoxy	
Approval/Conformity	CE, WEEE	CE, WEEE	CE, WEEE	
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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	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
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	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-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR
	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Epoxy	Epoxy	PMMA	PMMA	PMMA
	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE
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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.



	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	
Application	—	—	—	
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	
Active length AL 1	—	—	—	
Range	0...60 mm	0...60 mm	0...60 mm	
Connection	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	
Housing material	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	
Material sensing surface	PMMA	PMMA	PMMA	
Approval/Conformity	CE, WEEE	CE, WEEE	CE, WEEE	
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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	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
	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	Diffuse sensor, energetic	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-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR
	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated	Brass	Aluminum, anodized, natural
	PMMA	PMMA	PMMA	Epoxy	Glass
	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE
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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	
Application	—	—	—	
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	
Active length AL 1	—	—	—	
Range	3.5...60 mm	3.5...100 mm	3.5...100 mm	
Connection	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	
Housing material	Aluminum, anodized, natural	Aluminum, anodized, natural	Aluminum, anodized, natural	
Material sensing surface	Glass	Glass	Glass	
Approval/Conformity	CE, WEEE	CE, WEEE	CE, WEEE	
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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
	—	—	—	—	Tube sensor, Liquid sensing
	for switching amplifier	for analog amplifier	for analog amplifier	for analog amplifier	for switching amplifier
	Optical sensor head	Optical sensor head	Optical sensor head	Optical sensor head	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	—	—	—	—
	—	8 mm	30 mm	30 mm	—
	3...15 mm	—	—	—	—
	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR
	Brass, nickel plated	Aluminum, anodized, black	Aluminum, anodized, black	Aluminum, anodized, black	Aluminum, anodized, black
	Epoxy	Epoxy	PMMA	PMMA	Epoxy
	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE	CE, WEEE
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	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	
Application	Tube sensor, Liquid sensing	Tube sensor, Water detection	Tube sensor, Liquid sensing	
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	—	—	—	
Active length AL 1	—	—	—	
Range	—	—	—	
Connection	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 1.0 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	
Housing material	Aluminum, anodized, black	Aluminum, anodized, black	Aluminum, anodized, black	
Material sensing surface	Epoxy	Epoxy	Epoxy	
Approval/Conformity	CE, WEEE	CE, WEEE	CE, WEEE	
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	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		
	Tube sensor, Water detection	Tube sensor, Liquid sensing	Tube sensor, Water detection		
	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-Male, 0.20 m, PUR	Cable with connector, M8x1-Male, 1.00 m, PUR	Cable with connector, M8x1-Male, 0.20 m, PUR		
	Aluminum, anodized, black	Aluminum, anodized, black	Aluminum, anodized, black		
	Epoxy	Epoxy	Epoxy		
	CE, WEEE	CE, WEEE	CE, WEEE		
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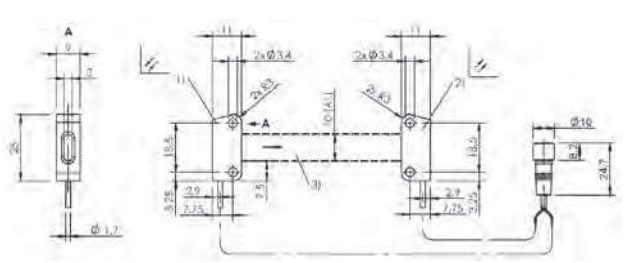
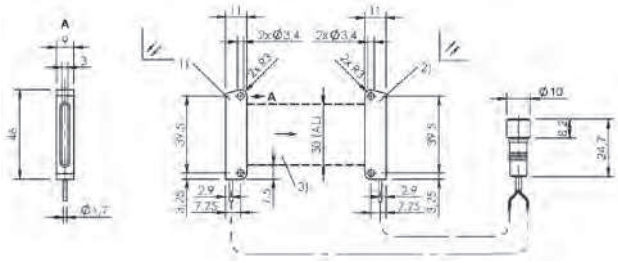


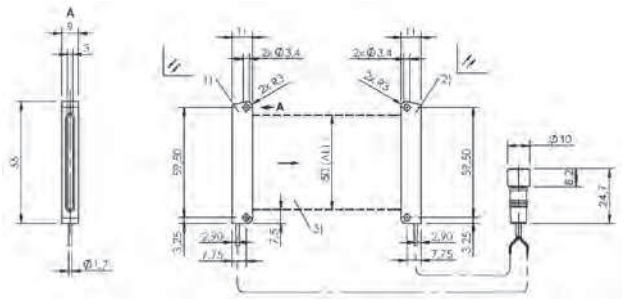
1) Emitter, 2) Receiver, 3) Light array

BOH00F5



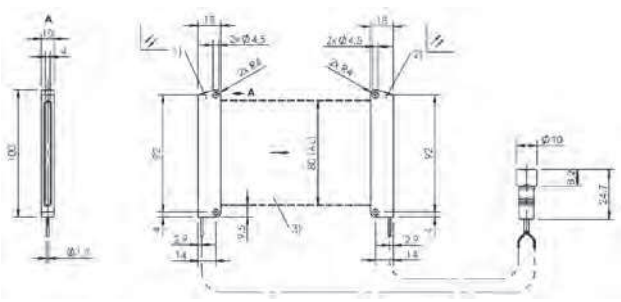
1) Emitter, 2) Receiver, 3) Light array

BOH00F6



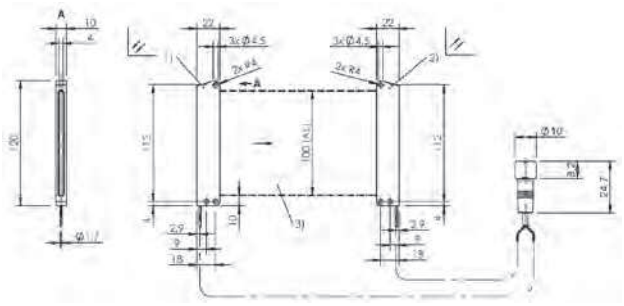
1) Emitter, 2) Receiver, 3) Light array

BOH00F7



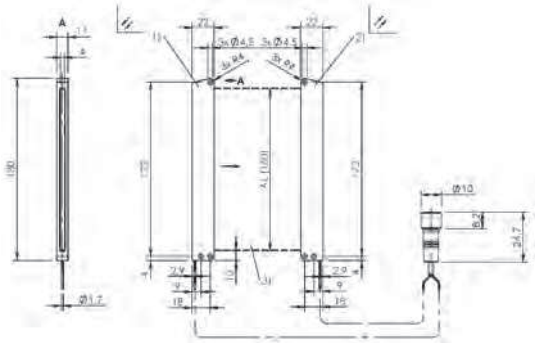
1) Emitter, 2) Receiver, 3) Light array

BOH00FF



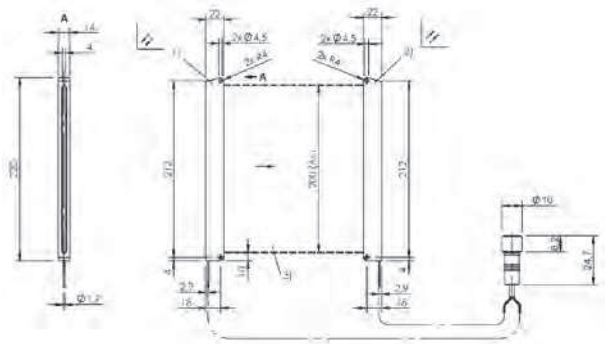
1) Emitter, 2) Receiver, 3) Light array

BOH00FH



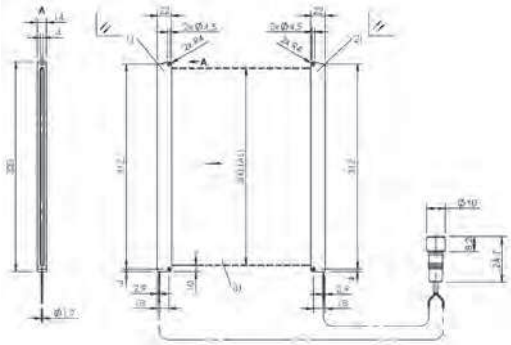
1) Emitter, 2) Receiver, 3) Light array

BOH00FJ



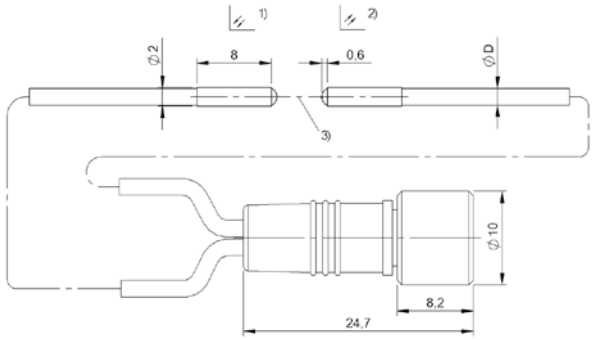
1) Emitter, 2) Receiver, 3) Light array

BOH00FK



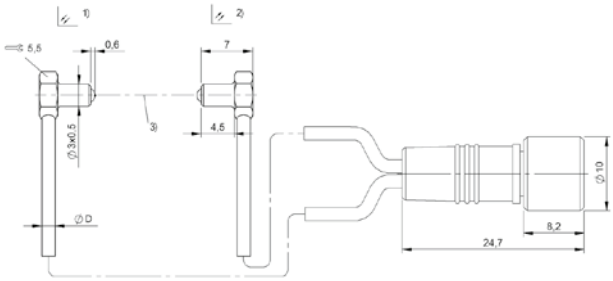
1) Emitter, 2) Receiver, 3) Light array

BOH00FL



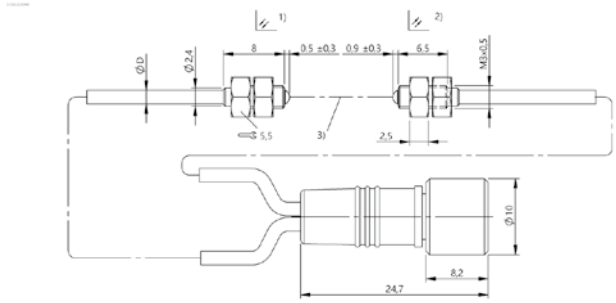
1) Emitter, 2) Receiver, 3) Optical axis

BOH005J, BOH000C, BOH000A, BOH000J



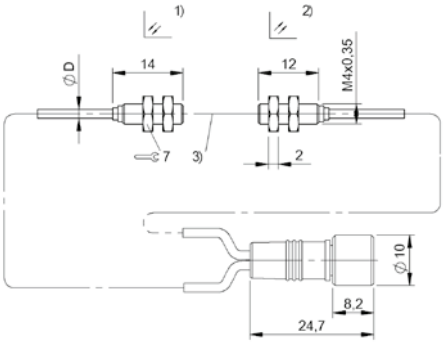
1) Emitter, 2) Receiver, 3) Optical axis

BOH000E



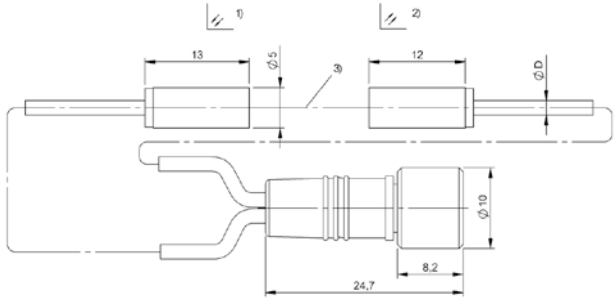
1) Emitter, 2) Receiver, 3) Optical axis

BOH0061, BOH000U, BOH000T



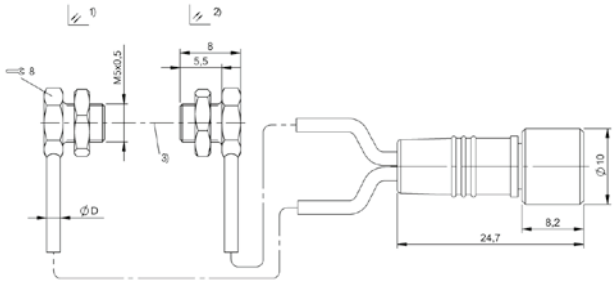
1) Emitter, 2) Receiver, 3) Optical axis

BOH00E6, BOH00E5



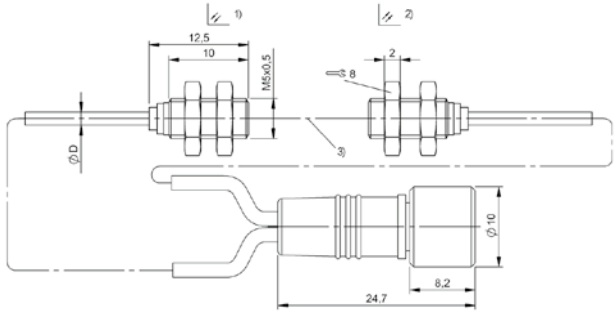
1) Emitter, 2) Receiver, 3) Optical axis

BOH0010



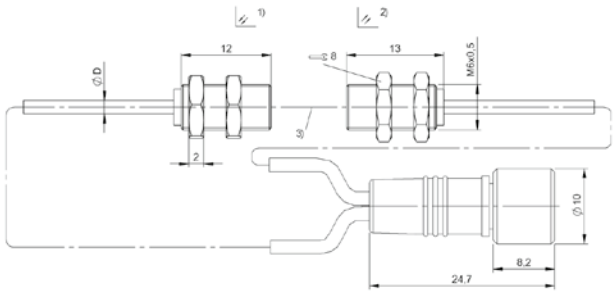
1) Emitter, 2) Receiver, 3) Optical axis

BOH000F



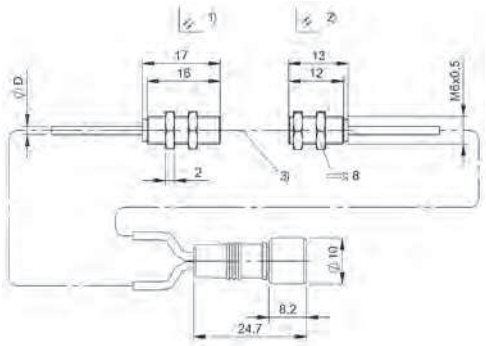
1) Emitter, 2) Receiver, 3) Optical axis

BOH0065, BOH0013, BOH000Y



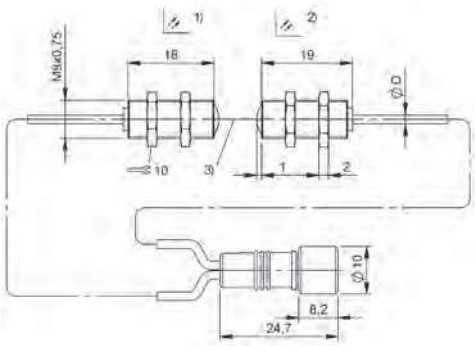
1) Emitter, 2) Receiver, 3) Optical axis

BOH006H, BOH000K



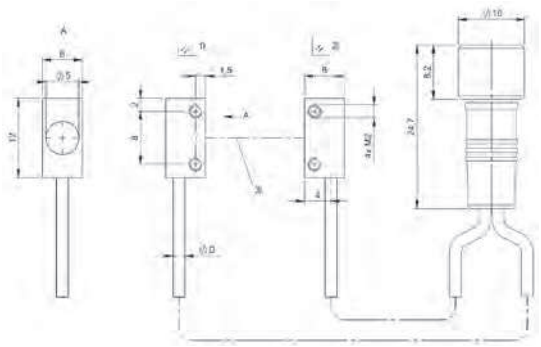
1) Emitter, 2) Receiver, 3) Optical axis

BOH000H



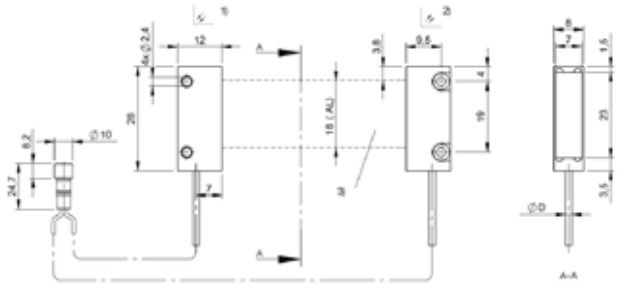
1) Emitter, 2) Receiver, 3) Optical axis

BOH0012



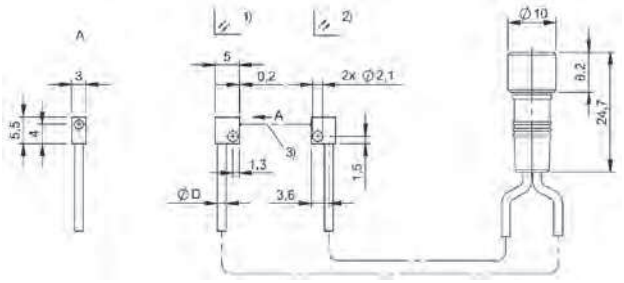
1) Emitter, 2) Receiver, 3) Optical axis

BOH006P, BOH000P, BOH000N, BOH000R



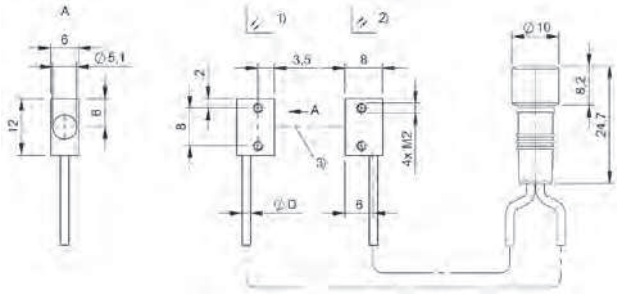
1) Emitter, 2) Receiver, 3) Light array

BOH00EL



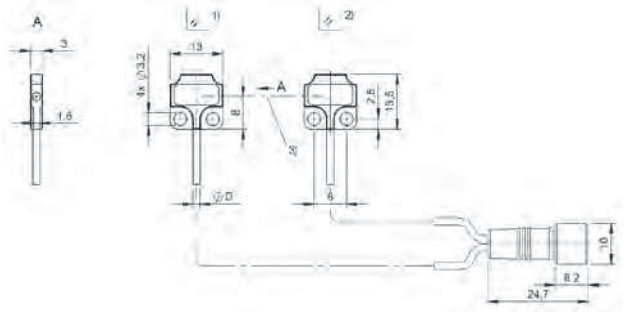
1) Emitter, 2) Receiver, 3) Optical axis

BOH001Z



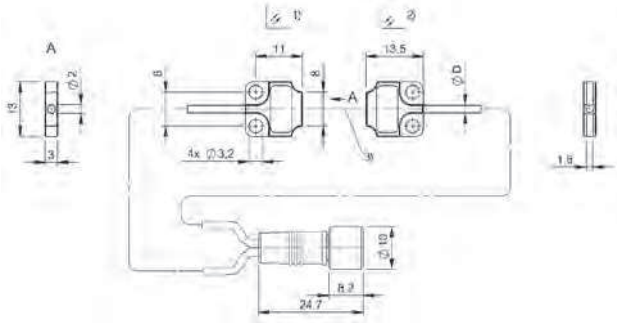
1) Emitter, 2) Receiver, 3) Optical axis

BOH0020, BOH007A



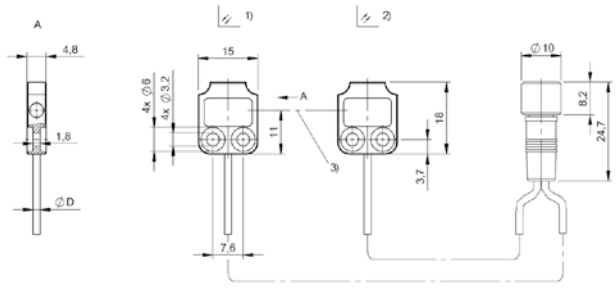
1) Emitter, 2) Receiver, 3) Optical axis

BOH002E



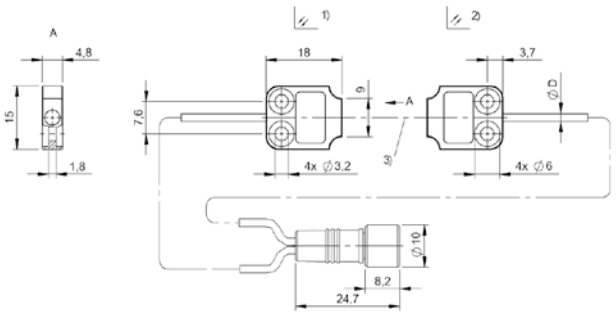
1) Emitter, 2) Receiver, 3) Optical axis

BOH002C



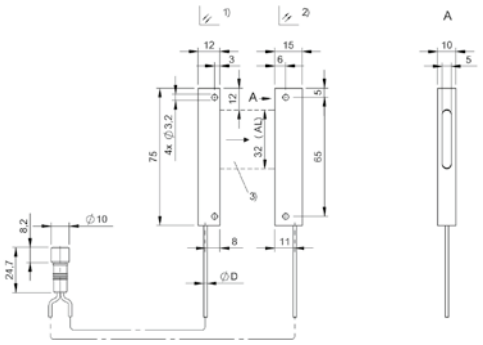
1) Emitter, 2) Receiver, 3) Optical axis

BOH002H



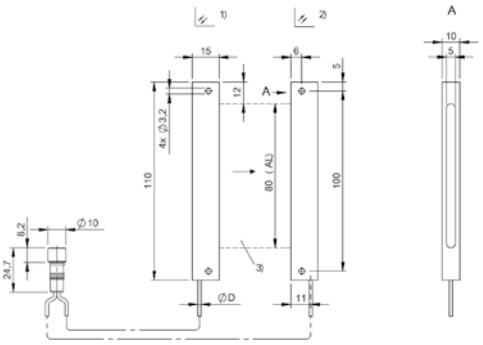
1) Emitter, 2) Receiver, 3) Optical axis

BOH002F



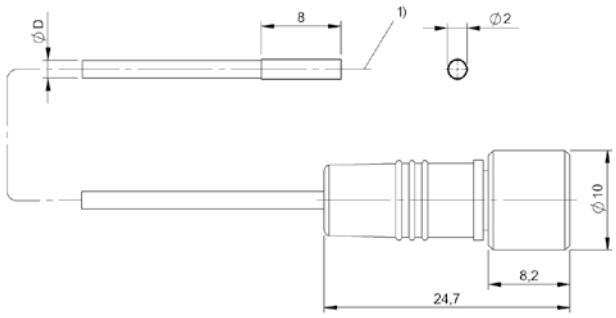
1) Emitter, 2) Receiver, 3) Light array

BOH0024



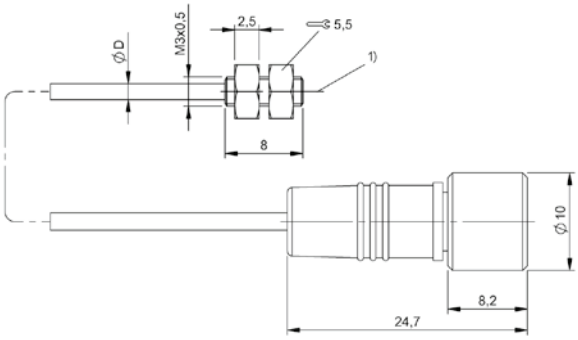
1) Emitter, 2) Receiver, 3) Light array

BOH002M



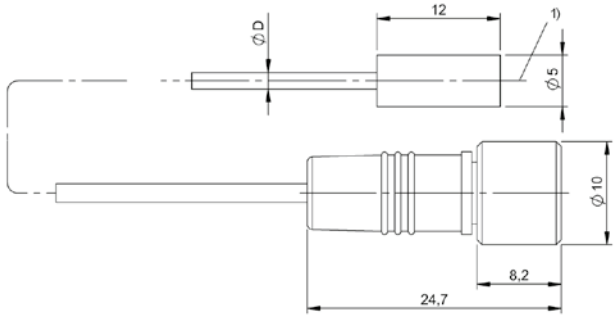
1) Optical axis

BOH0002, BOH0003



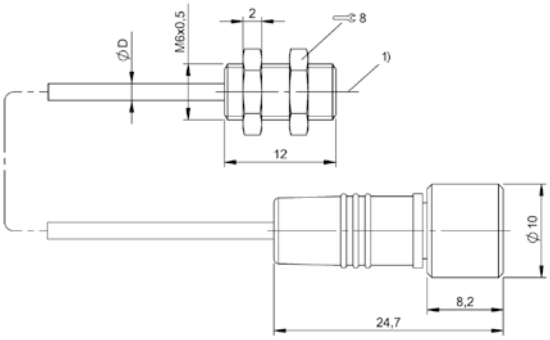
1) Optical axis

BOH0004, BOH0009



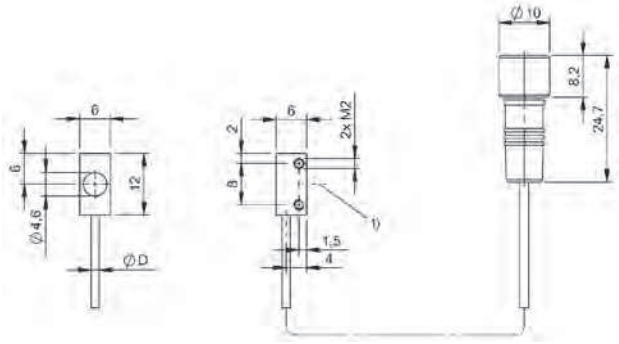
1) Optical axis

BOH003C, BOH0006, BOH0005



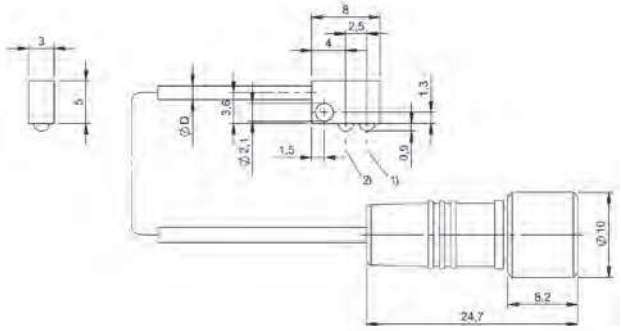
1) Optical axis

BOH003M, BOH0008, BOH0007



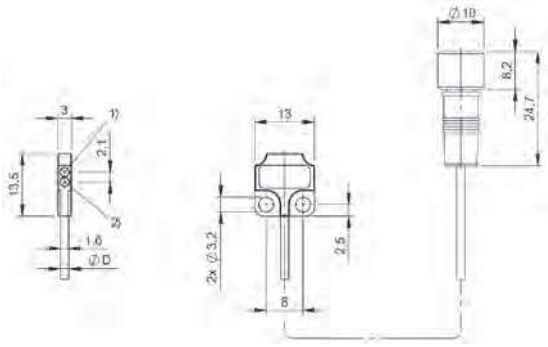
1) Optical axis

BOH003W, BOH000M, BOH000L



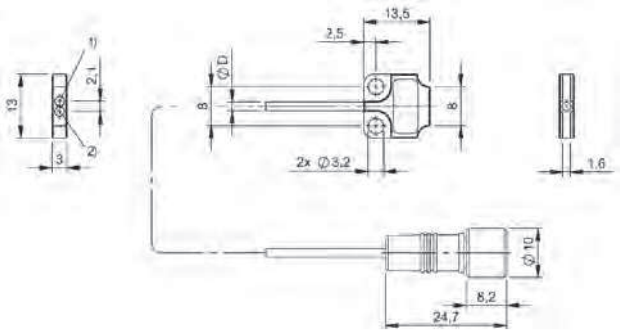
1) Optical axis emitter, 2) Optical axis receiver

BOH002K



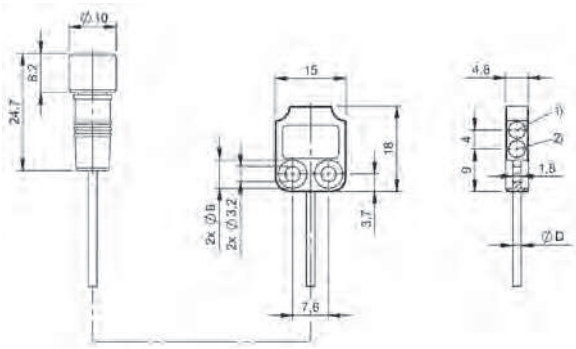
1) Optical axis emitter, 2) Optical axis receiver

BOH0028



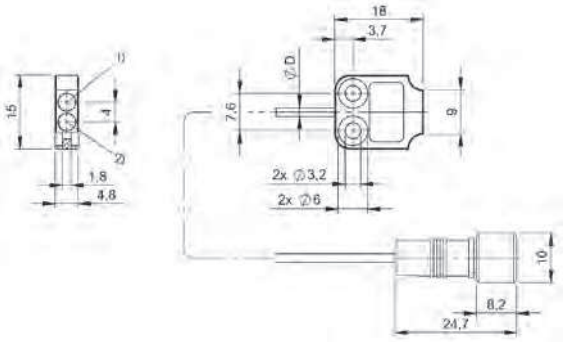
1) Optical axis emitter, 2) Optical axis receiver

BOH0027



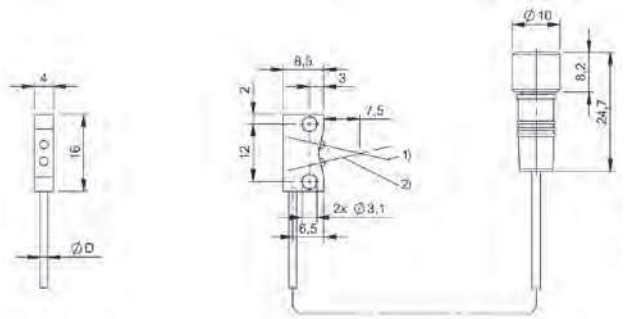
1) Optical axis emitter, 2) Optical axis receiver

BOH002A



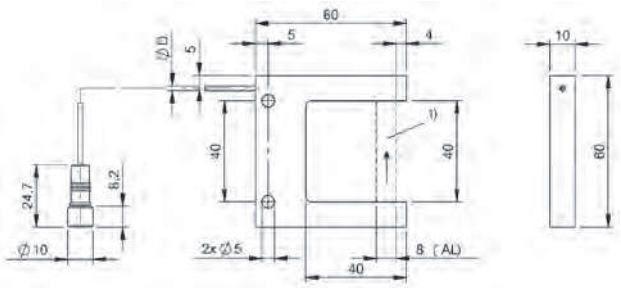
1) Optical axis emitter, 2) Optical axis receiver

BOH0029



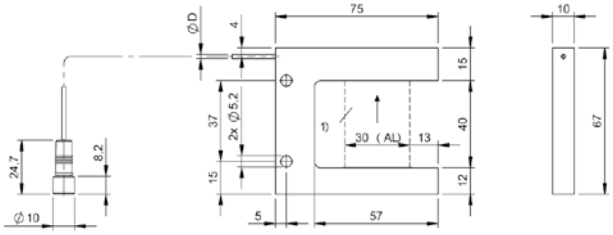
1) Optical axis emitter, 2) Optical axis receiver

BOH002L



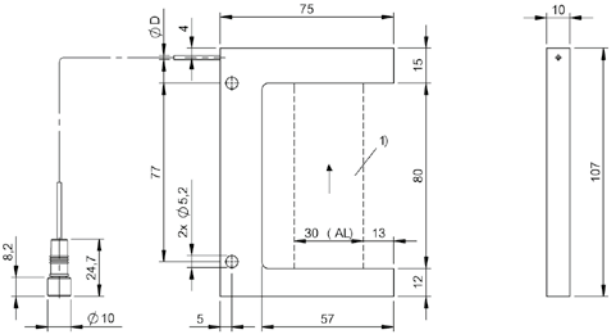
1) Light array

BOH001M



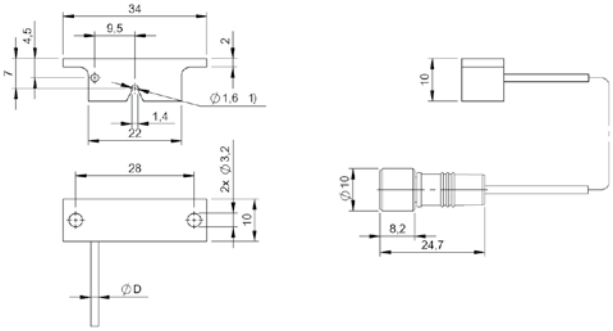
1) Light array

BOH001N



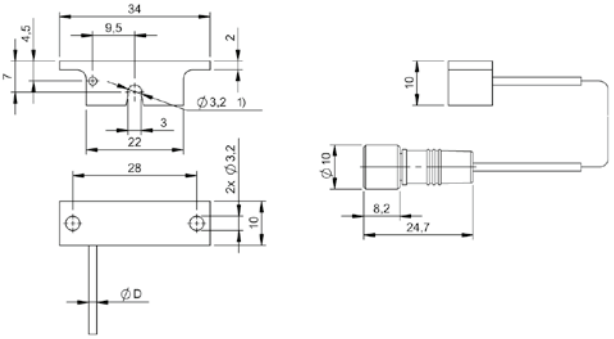
1) Light array

BOH001P



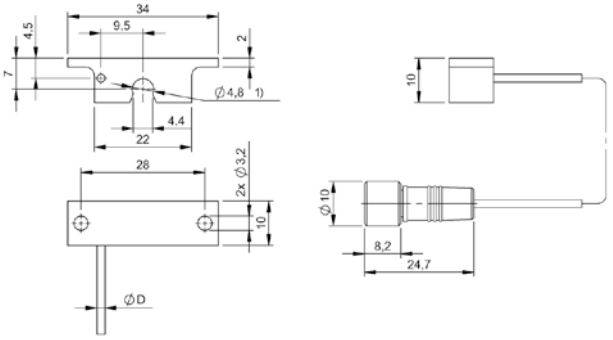
1) Hose fitting

BOH001R



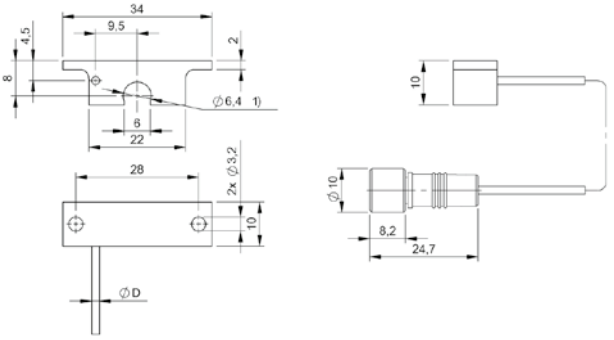
1) Hose fitting

BOH001Y, BOH001U



1) Hose fitting

BOH0019, BOH0015



1) Hose fitting

BOH001A, BOH0016



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	**BAE00N6** 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-OH-050-PP-DV02	
PNP dynamic normally open/normally closed	**BAE00NJ** BAE SA-OH-040-PP-DV02	**BAE00N7** BAE SA-OH-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 Ub	10...30 VDC	10...30 VDC	10...30 VDC	
Approval/Conformity	CE, EAC	CE, EAC	CE, EAC	
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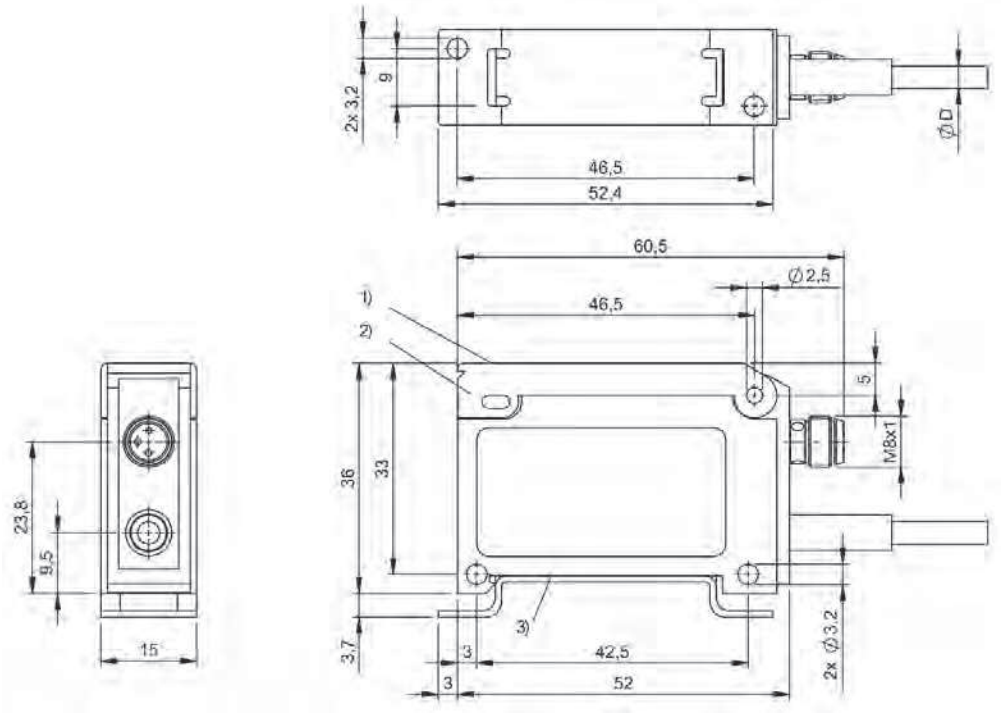
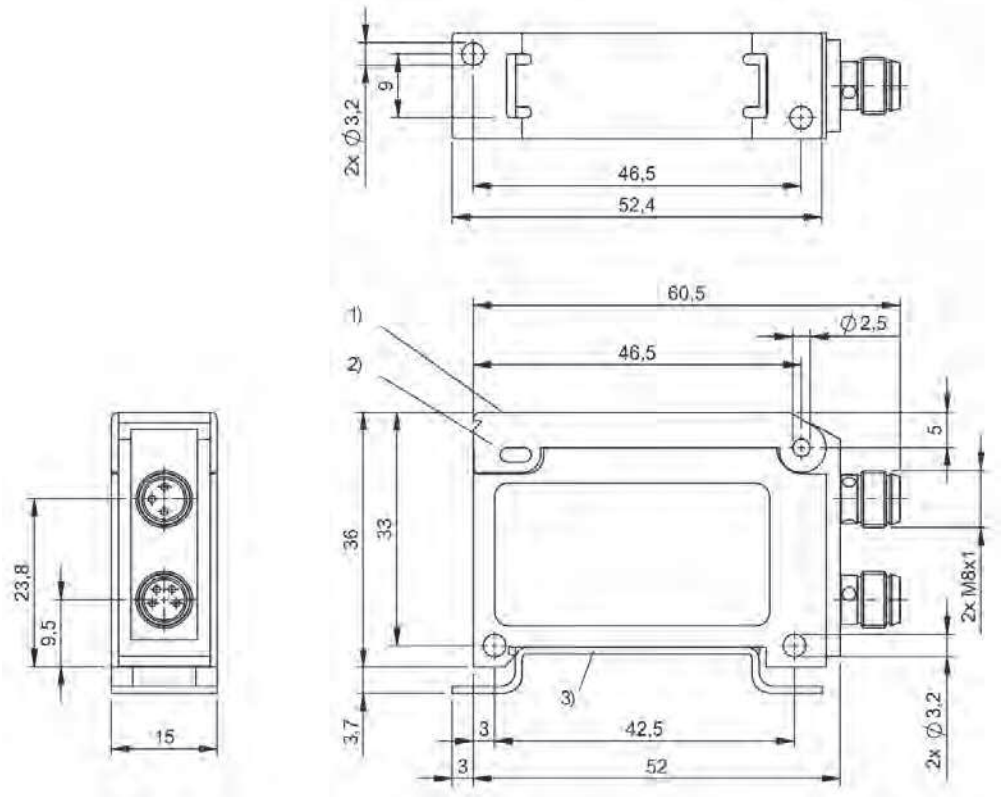
	BAE00Y7 BAE SA-OH-050-PP-S75G				
	SA-OH				
	15 x 36 x 61 mm				
	Output function- LED yellow, LED green: Power, Error - LED green, flashing, Signal strength - segment display				
	Sensitivity (Sn), Light-on/dark-on, Read direction for segment display, Segment display on/off, Key disable on/off, Factory 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 620				



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

Sensors
RFID
Machine Vision and Optical Identification
Human Machine Interfaces
Safety
Industrial Networking
Software and System Solutions
Power Supply
Connectivity
Accessories



	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	
Accuracy	±0.5 % FS	±1 % FS	±0.8 % FS	
Repeat accuracy	0.5 %FS	0.5 %FS	0.59 %FS	
Resolution	≤ 120 µm	≤ 0.68 mm	≤ 0.15 mm	
Connection	Connector, M8x1-Male, 4-pin	Connector, M8x1-Male, 4-pin	Connector, M8x1-Male, 4-pin	
Housing material	ABS	ABS	ABS	
Operating voltage Ub	13...30 VDC	13...30 VDC	13...30 VDC	
Approval/Conformity	CE, cULus, EAC, Ecolab, WEEE	CE, cULus, EAC, Ecolab, WEEE	CE, cULus, EAC, Ecolab, WEEE	
Trademark	—	—	—	
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	BOD002L BOD 21M-LBI05-S4	BOD000L BOD 21M-LA01-S92	BOD000M BOD 21M-LA02-S92	BOD000N BOD 21M-LA04-S92	BOD000P BOD 21M-LB01-S92
	21M	21M	21M	21M	21M
	15 x 51 x 42.5 mm	15 x 42.5 x 50 mm	15 x 42.5 x 50 mm	15 x 42.5 x 50 mm	15 x 42.5 x 50 mm
	IO-Link 1.1 Analog, current 4…20 mA linear rising/falling 2x PNP/NPN NO/NC	Analog, voltage 1…10 V linear rising 2x PNP/NPN NO/NC	Analog, voltage 1…10 V linear rising 2x PNP/NPN NO/NC	Analog, voltage 1…10 V linear rising 2x PNP/NPN NO/NC	Analog, current 4…20 mA linear rising 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
	Focus, typical at 400 mm	Collimated	Collimated	Collimated	Collimated
	Laser red light	Laser red light	Laser red light	Laser red light	Laser red light
	1.5 x 0.5 mm at 200 mm	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
	30...200 mm, adjustable	25...45 mm, adjustable	20...200 mm, adjustable	20...500 mm, adjustable	25...45 mm, adjustable
	±1 mm max. (30...170 mm) ±3 mm max. (170...200 mm)s	±0.5 % FS	±1 % FS	±3 % FS	±0.5 % FS
	≤ ± 0.25 mm	0.1 %FS	1 %FS	1 %FS	0.1 %FS
	≤ 10 µm typ. (30...170 mm) 100 µm typ. (170...200 mm)	≤ 30 µm	100...200 µm	100...500 µm	≤ 30 µm
	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin
	Zinc, Die casting, Painted Aluminum, Glass, PMMA, black	Zinc, Die casting Aluminum	Zinc, Die casting Aluminum	Zinc, Die casting Aluminum	Zinc, Die casting Aluminum
	15...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
	CE, cULus, EAC, IO-Link, WEEE	CE, EAC, cULus, WEEE	CE, EAC, cULus, WEEE	CE, EAC, cULus, WEEE	CE, EAC, cULus, WEEE
	–	–	–	–	–
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	BOD000R BOD 21M-LB02-S92	BOD000T BOD 21M-LB04-S92	BOD0020 BOD 23K-LI01-S4	
Series	21M	21M	23K	
Dimension	15 x 42.5 x 50 mm	15 x 42.5 x 50 mm	51 x 23 x 52.4 mm	
Interface	Analog, current 4…20 mA linear rising 2x PNP/NPN NO/NC	Analog, current 4…20 mA linear rising 2x PNP/NPN NO/NC	IO-Link 1.1 PNP/NPN/ Auto-Detect 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	Collimated	Collimated	Collimated	
Light type	Laser red light	Laser red light	Laser red light	
Light spot size	Ø 1 mm at 200 mm	1 x 6 mm at 500 mm	5.5 x 7 mm at 5 m	
Range	20...200 mm, adjustable	20...500 mm, adjustable	100...5000 mm	
Accuracy	±1 % FS	±3 % FS	±0.6 % FS	
Repeat accuracy	1 %FS	1 %FS	0.024 %FS	
Resolution	100...200 µm	100...500 µm	≤ 5 mm	
Connection	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 4-pin	
Housing material	Zinc, Die casting Aluminum	Zinc, Die casting Aluminum	ABS	
Operating voltage Ub	18...30 VDC	18...30 VDC	18...30 VDC	
Approval/Conformity	CE, EAC, cULus, WEEE	CE, EAC, cULus, WEEE	CE, cULus, EAC, Ecolab, WEEE	
Trademark	—	—	—	
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	BOD001N BOD 23K-LA01-S92	BOD001P BOD 23K-LB01-S92	BOD002M BOD 24K-LPI07-S4	BOD002N BOD 24K-LPI08-S4	BOD0002 BOD 26K-LA01-S4-C
	23K	23K	24K	24K	26K
	51 x 23 x 52.4 mm	51 x 23 x 52.4 mm	50 x 21 x 50 mm	50 x 21 x 50 mm	17 x 50 x 50 mm
	Analog, voltage 0…10 V linear rising/falling PNP/ NPN/Auto-Detect NO/NC	Analog, current 4…20 mA linear rising/falling PNP/ NPN/Auto-Detect NO/NC	IO-Link 1.1 Analog, voltage/analog, current selectable 4…20 mA 0…10 V 2x PNP/NPN NO/NC	IO-Link 1.1 Analog, voltage/analog, current selectable 4…20 mA 0…10 V 2x PNP/NPN NO/NC	Analog, voltage 0…10 V linear rising
	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric sensor	Photoelectric sensor	Photoelectric distance sensor
	Light time-of-flight	Light time-of-flight	Triangulation	Triangulation	Triangulation
	Collimated	Collimated	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	5.5 x 7 mm at 5 m	1 x 1 mm at 100 mm	1.2 x 1.2 mm at 650 mm	Ø 0.8 mm at 65 mm
	100...5000 mm	100...5000 mm	50...100 mm	50...650 mm	45...85 mm
	±0.6 % FS	±0.6 % FS	±0.5 %	±1 %	±1 % FS
	0.024 %FS	0.024 %FS	± 50 µm	± 50 µm	–
	≤ 5.0 mm	≤ 5.0 mm	≤ 10 µm	≤ 100 µm	≤ 80 µm
	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 4-pin
	ABS	ABS	Plastic	Plastic	ABS
	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...28 VDC
	CE, cULus, EAC, Ecolab, WEEE	CE, cULus, EAC, Ecolab, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	–	–	–	–	–
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	BOD0004 BOD 26K-LA02-S4-C	BOD0005 BOD 26K-LB04-S115-C	BOD0006 BOD 26K-LB05-S115-C	
Series	26K	26K	26K	
Dimension	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	
Interface	Analog, voltage 0…10 V linear rising	Analog, current 4…20 mA linear rising/falling 2x PNP NO/NC	Analog, current 4…20 mA linear rising/falling 2x 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	Laser red light	Laser red light	Laser red light	
Light spot size	Ø 0.8 mm at 65 mm	1.5 x 3.25 mm at 100 mm	2 x 4.5 mm at 300 mm	
Range	45...85 mm	30...100 mm, adjustable	80...300 mm, adjustable	
Accuracy	±1 % FS	±0.25 %FS	±0.25 %FS	
Repeat accuracy	—	0.25 %FS	0.25 %FS	
Resolution	≤ 20 µm	0.1 %FS	0.1 %FS	
Connection	Connector, M12x1-Male, 4-pin	Connector, M12x1-Male, 8-pin	Connector, M12x1-Male, 8-pin	
Housing material	ABS	ABS	ABS	
Operating voltage Ub	18...28 VDC	18...30 VDC	18...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Trademark	—	—	—	
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	BOD0007 BOD 26K-LB06-S92-C	BOD0008 BOD 26K-LB07-S92-C	BOD000C BOD 26K-LBR04-S115-C	BOD000E BOD 26K-LBR05-S115-C	BOD001Y BOD 37M-LPR02-S115
	26K	26K	26K	26K	37M
	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	17 x 50 x 50 mm	60 x 37 x 72.3 mm
	Analog, current 4…20 mA linear rising/falling PNP NO/NC	Analog, current 4…20 mA linear rising/falling PNP NO/NC	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
	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor	Photoelectric distance sensor
	Triangulation	Triangulation	Triangulation	Triangulation	Light time-of-flight
	Divergent	Divergent	Divergent	Divergent	Collimated
	Laser red light	Laser red light	Laser red light	Laser red light	Laser red light
	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	Ø 15 mm at 10 m
	30...100 mm, adjustable	80...300 mm, adjustable	30...100 mm, adjustable	80...300 mm, adjustable	200...20000 mm
	±0.25 %FS	±0.25 %FS	±0.25 %FS	±0.25 %FS	±0.035 % FS
	—	—	0.25 %FS	0.25 %FS	0.01 %FS
	0.1 %FS	0.1 %FS	0.1 %FS	0.1 %FS	≤ 1.0 mm
	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 8-pin	Connector, M12x1-Male, 8-pin	Connector, M12x1-Male, 8-pin
	ABS	ABS	ABS	ABS	Zinc, Die casting
	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	19.2...28.8 VDC
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	—	—	—	—	—
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	BOD001U BOD 37M-LA01-S92	BOD001W BOD 37M-LB01-S92	BOD001J BOD 66M-LA12-S92	
Series	37M	37M	66M	
Dimension	60 x 37 x 72.3 mm	60 x 37 x 72.3 mm	30 x 100.5 x 73.2 mm	
Interface	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	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 15 mm at 8 m	Ø 15 mm at 8 m	Ø 1 mm at 800 mm	
Range	200...10000 mm	200...10000 mm	150...800 mm	
Accuracy	±0.1 % FS	±0.1 % FS	±1.5 %FS	
Repeat accuracy	0.01 %FS	0.01 %FS	0.5 %FS	
Resolution	≤ 1.0 mm	≤ 1.0 mm	100...800 µm	
Connection	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	
Housing material	Zinc, Die casting	Zinc, Die casting	Zinc, Die casting, Painted	
Operating voltage Ub	19.2...28.8 VDC	19.2...28.8 VDC	18...30 VDC	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, EAC, WEEE	
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
	±1.5 %FS	±1.5 %FS	±1.5 %FS	±1.5 %FS	±1.5 %FS
	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-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin	Connector, M12x1-Male, 5-pin
	Zinc, Die casting, Painted	Zinc, Die casting, Painted	Zinc, Die casting, Painted	Zinc, Die casting, Painted	Zinc, Die casting, Painted
	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
	CE, EAC, WEEE	CE, EAC, WEEE	CE, EAC, WEEE	CE, EAC, WEEE	CE, EAC, WEEE
	–	–	–	–	–
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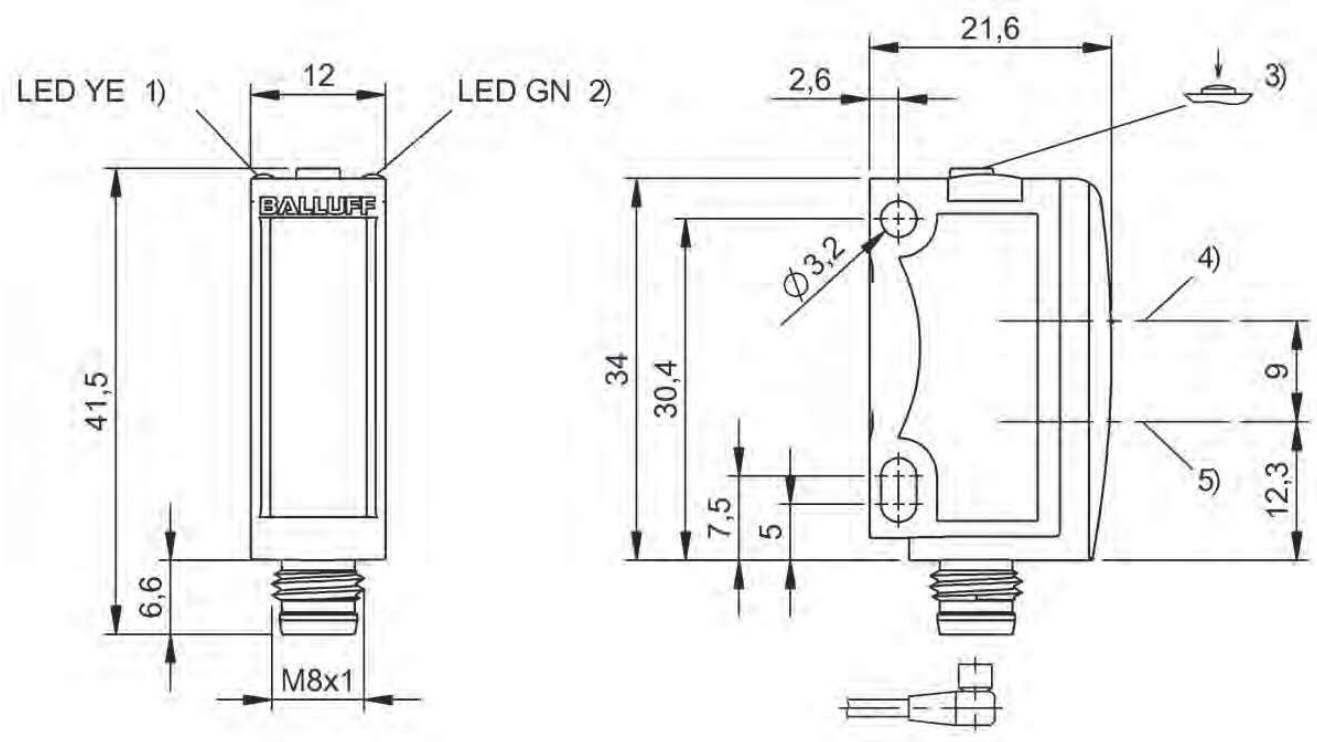
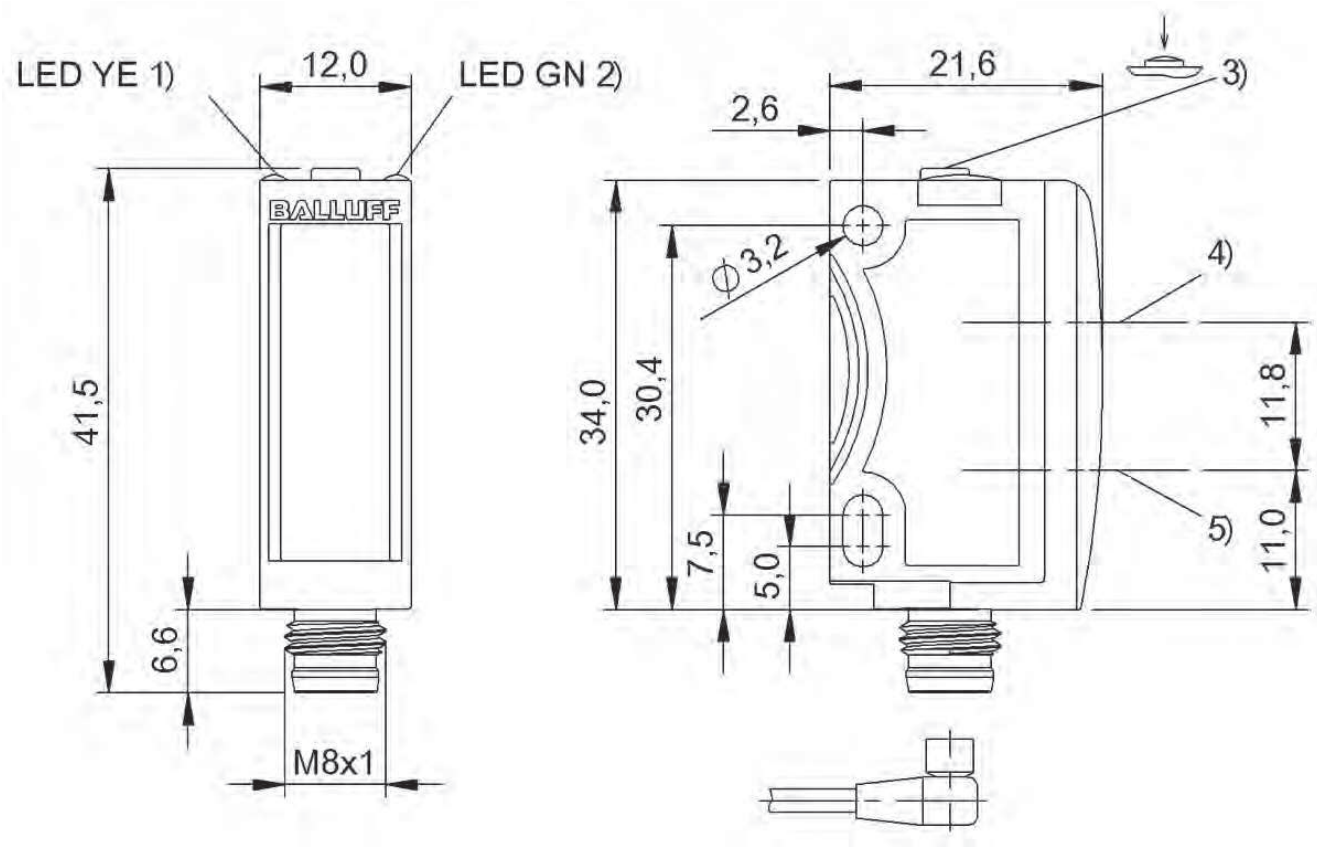


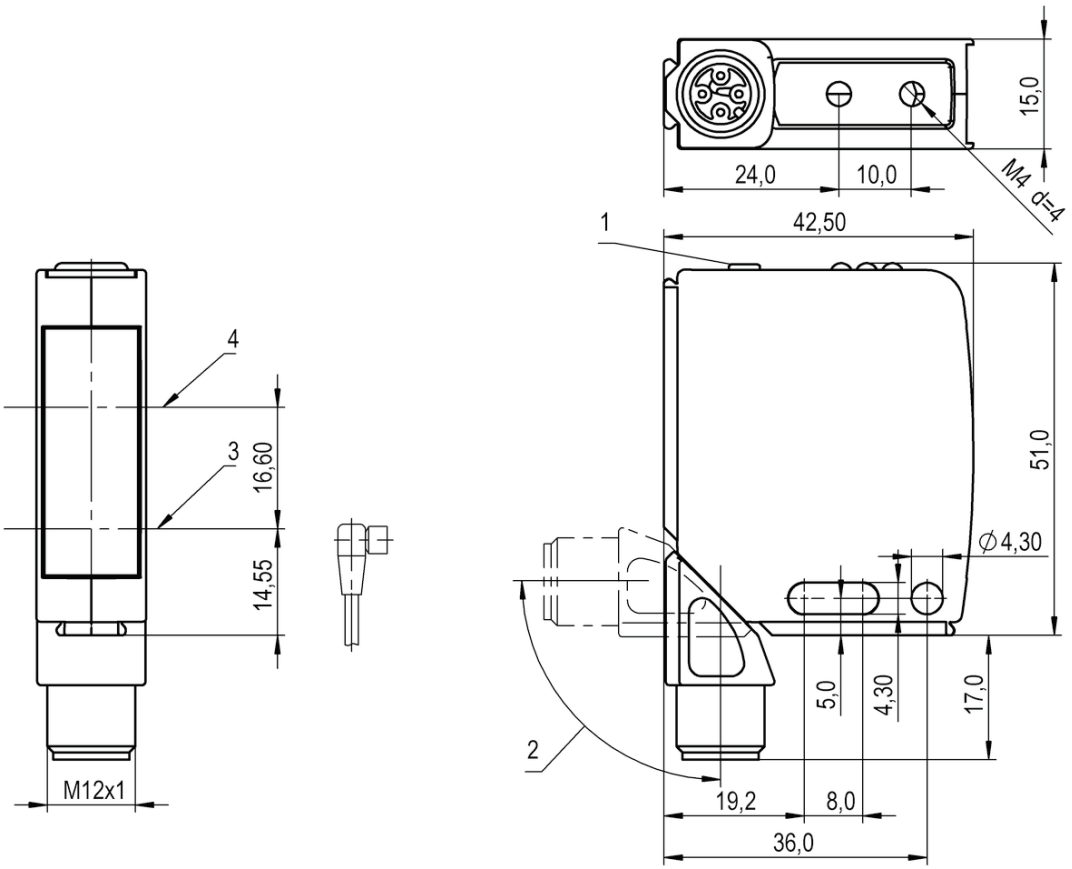
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOD001L, BOD001Z



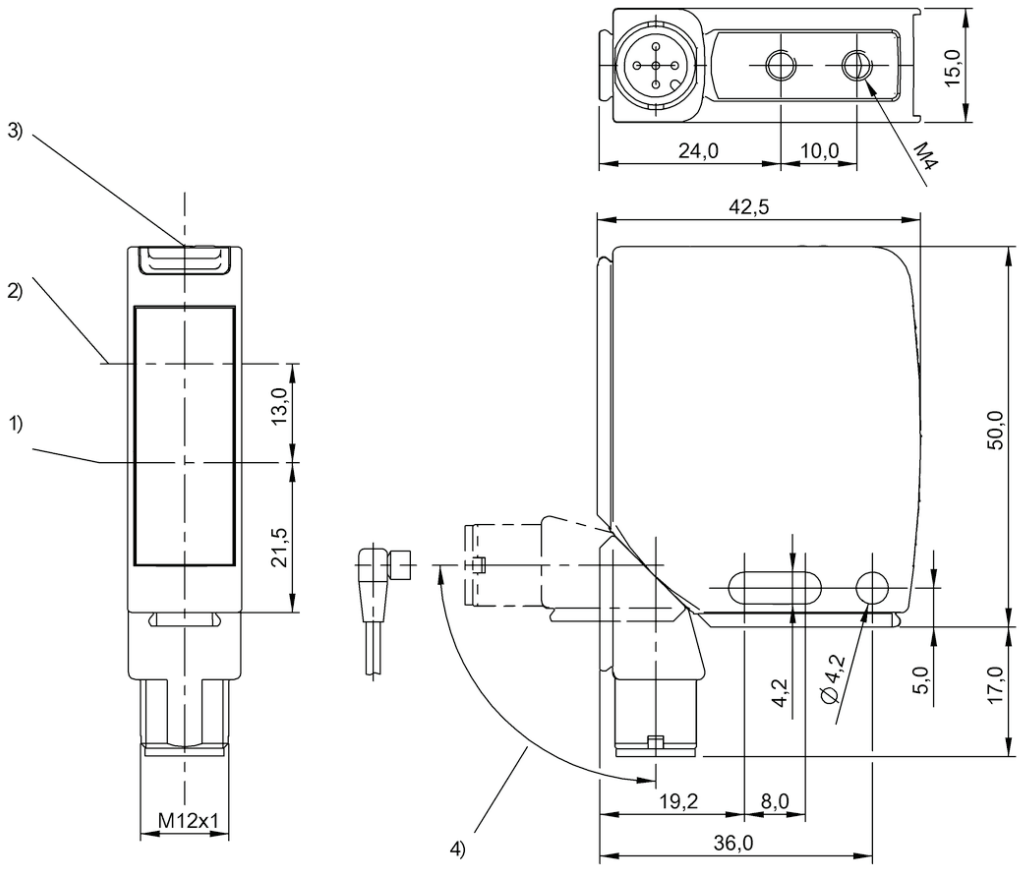
1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter

BOD001R



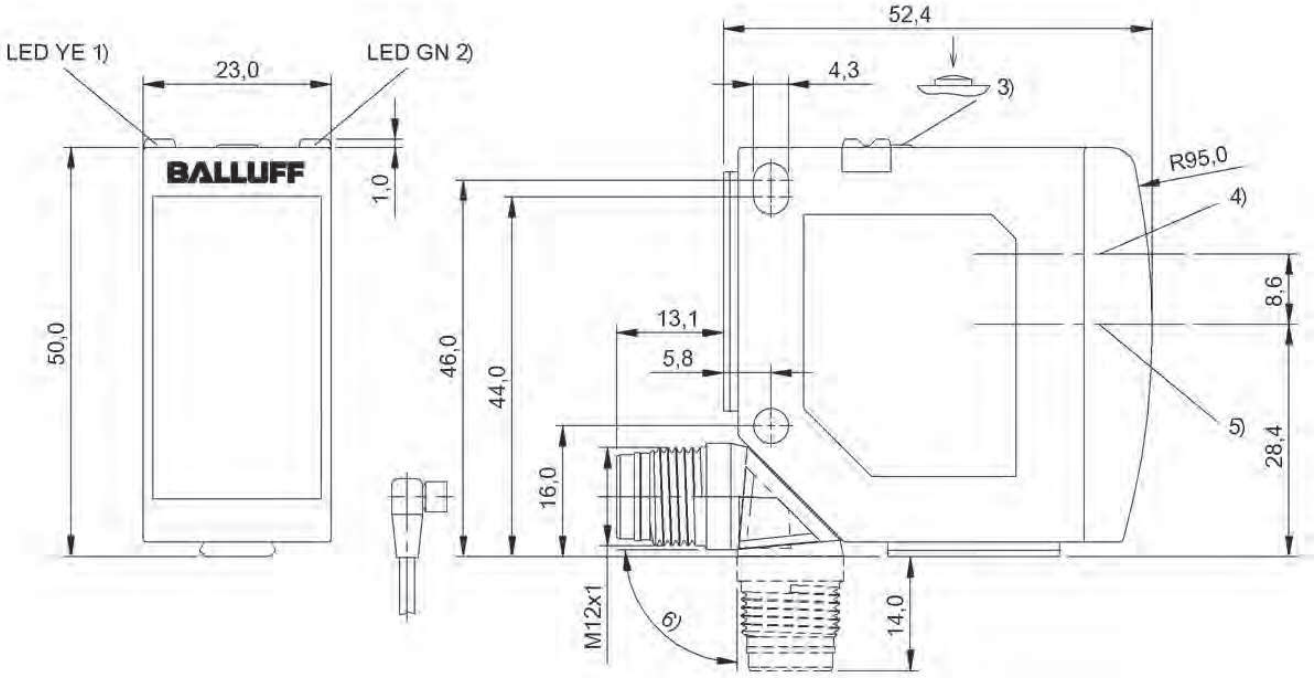
1) Display and control panel, 2) rotatable 270°, 3) Optical axis emitter, 4) Optical axis receiver

BOD002L



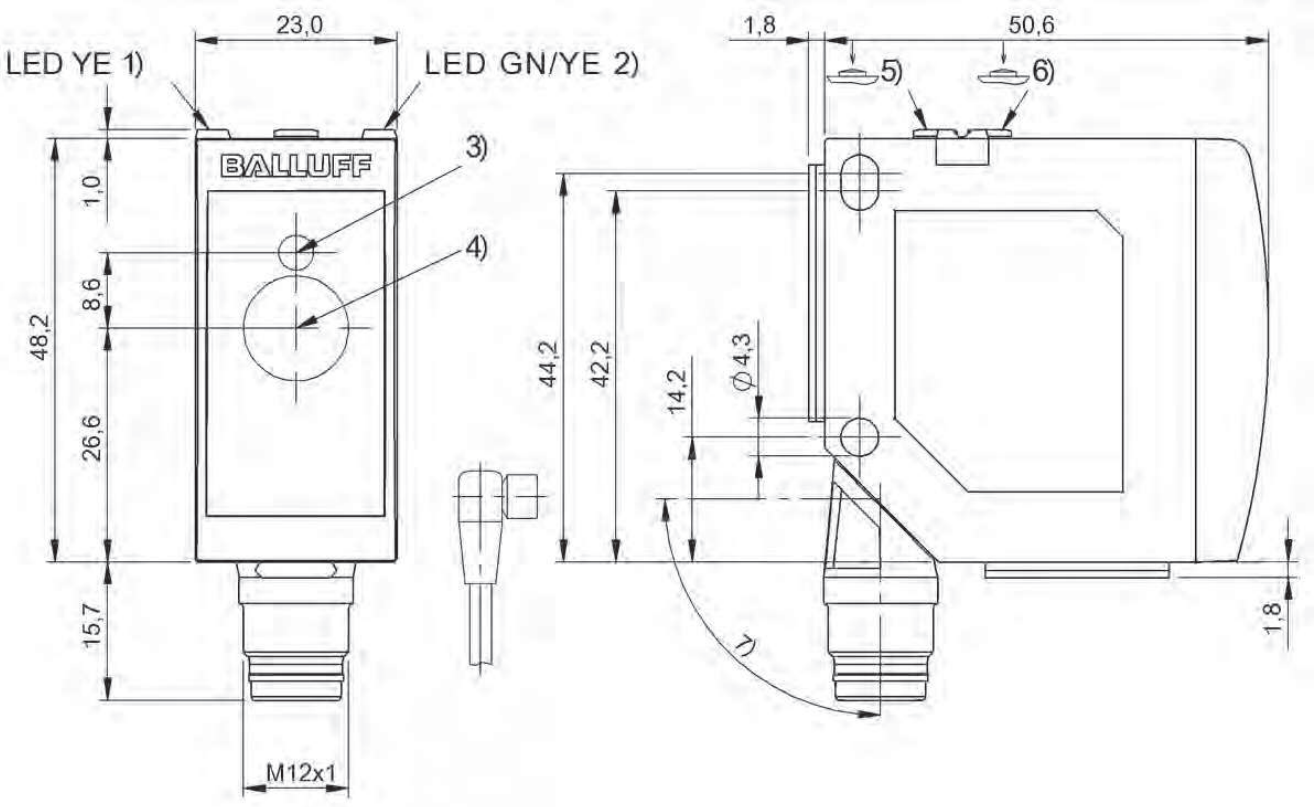
1) Optical axis receiver, 2) Optical axis emitter, 3) Display and control panel, 4) rotatable 270°

BOD000L, BOD000M, BOD000N, BOD000P, BOD000R, BOD000T



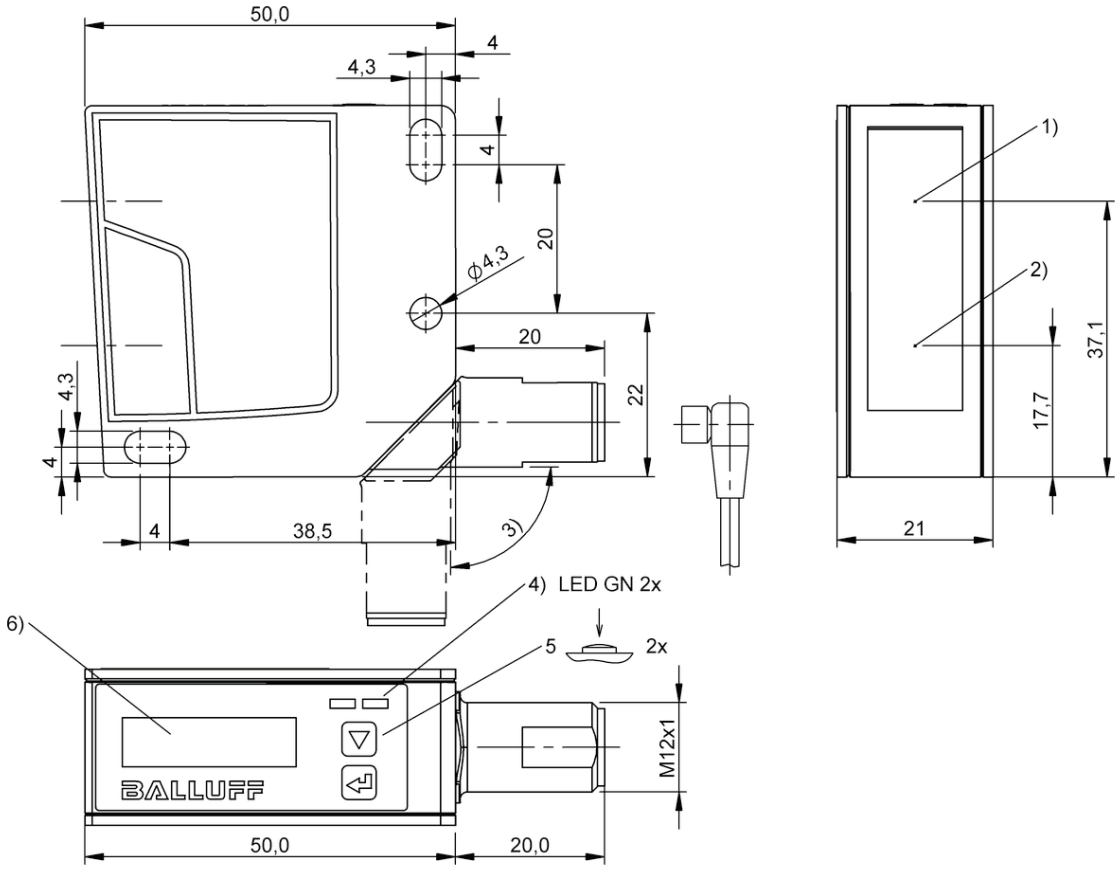
1) Output function, 2) Operating voltage, 3) Teach-In button, 4) Optical axis emitter, 5) Optical axis receiver, 6) rotatable 270°

BOD0020



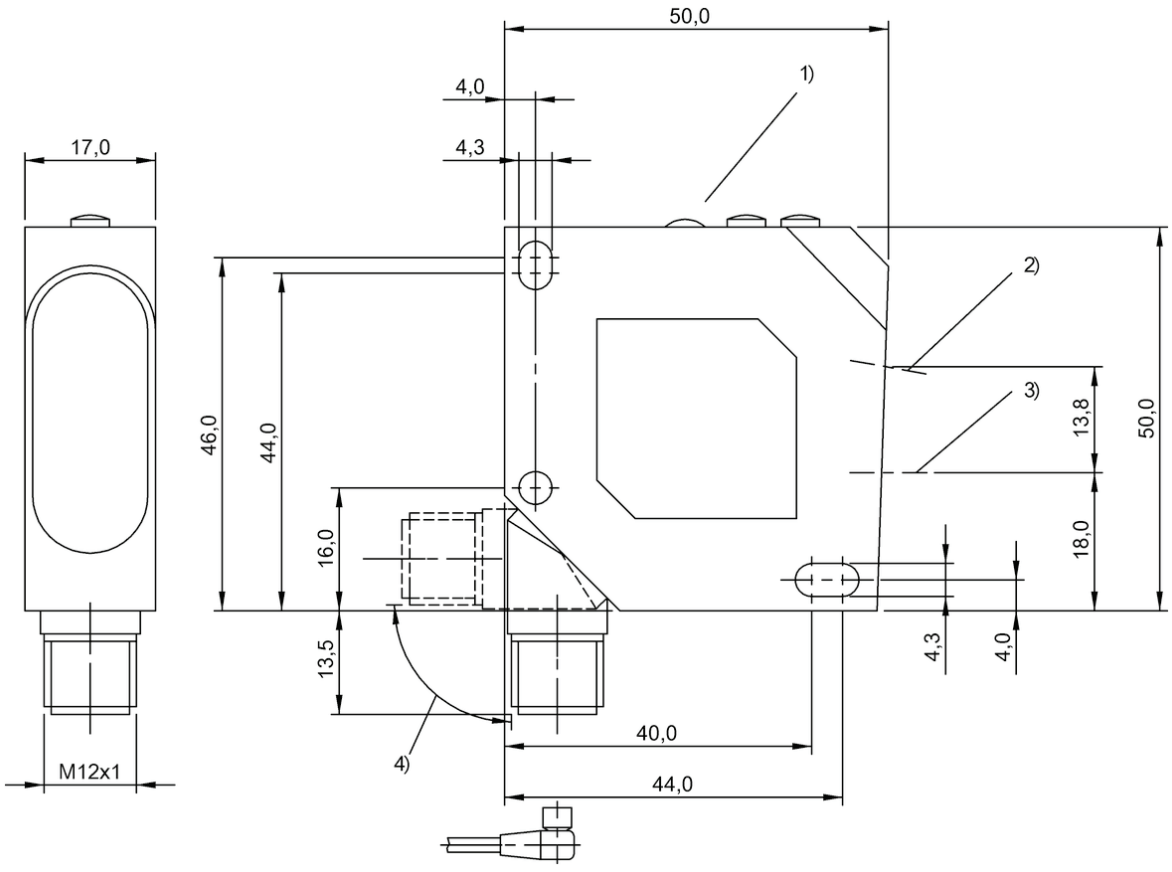
1) Output function, 2) Power/Analog output, 3) Optical axis emitter, 4) Optical axis receiver, 5) Teach-In switching output, 6) Teach-in Analog output, 7) rotatable 270°

BOD001N, BOD001P



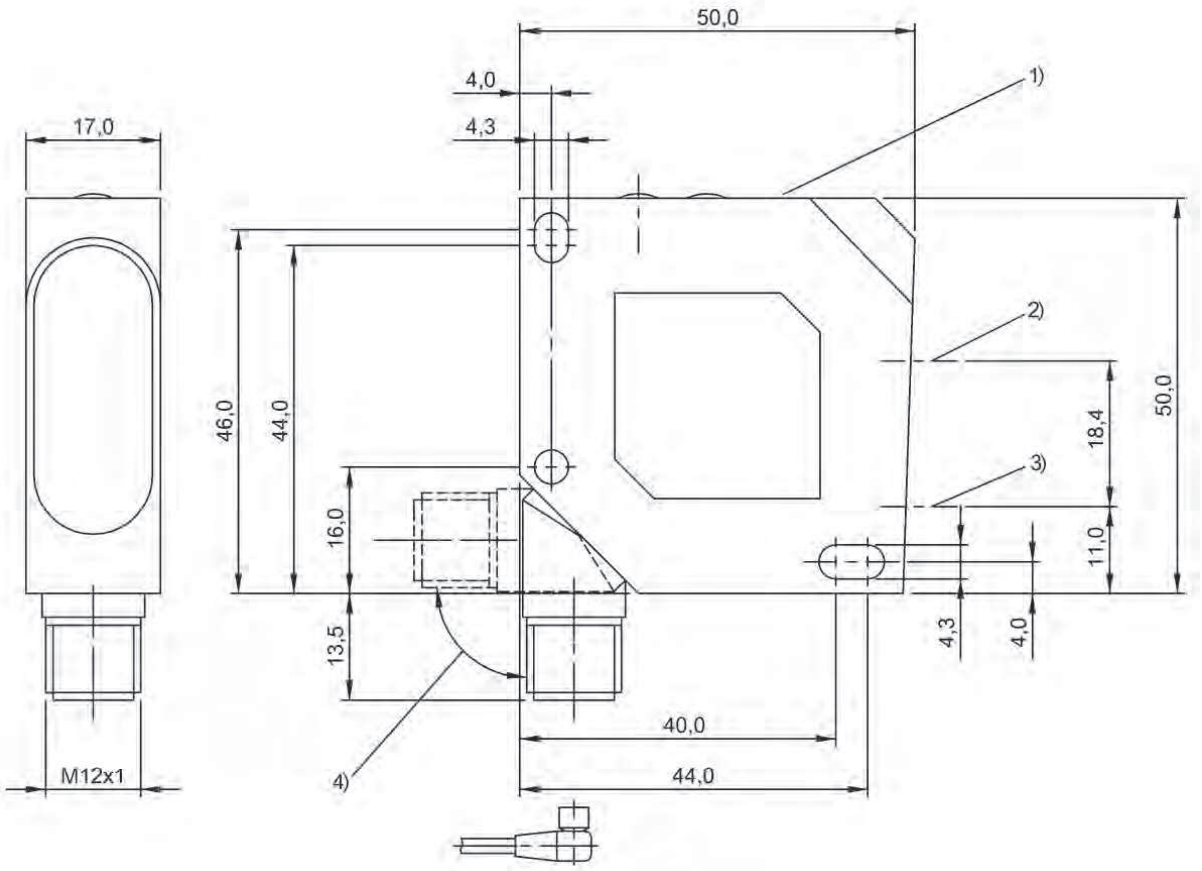
1) Optical axis emitter, 2) Optical axis receiver, 3) rotatable 180°, 4) LED green, 5) Operating button, 6) OLED Display

BOD002M, BOD002N



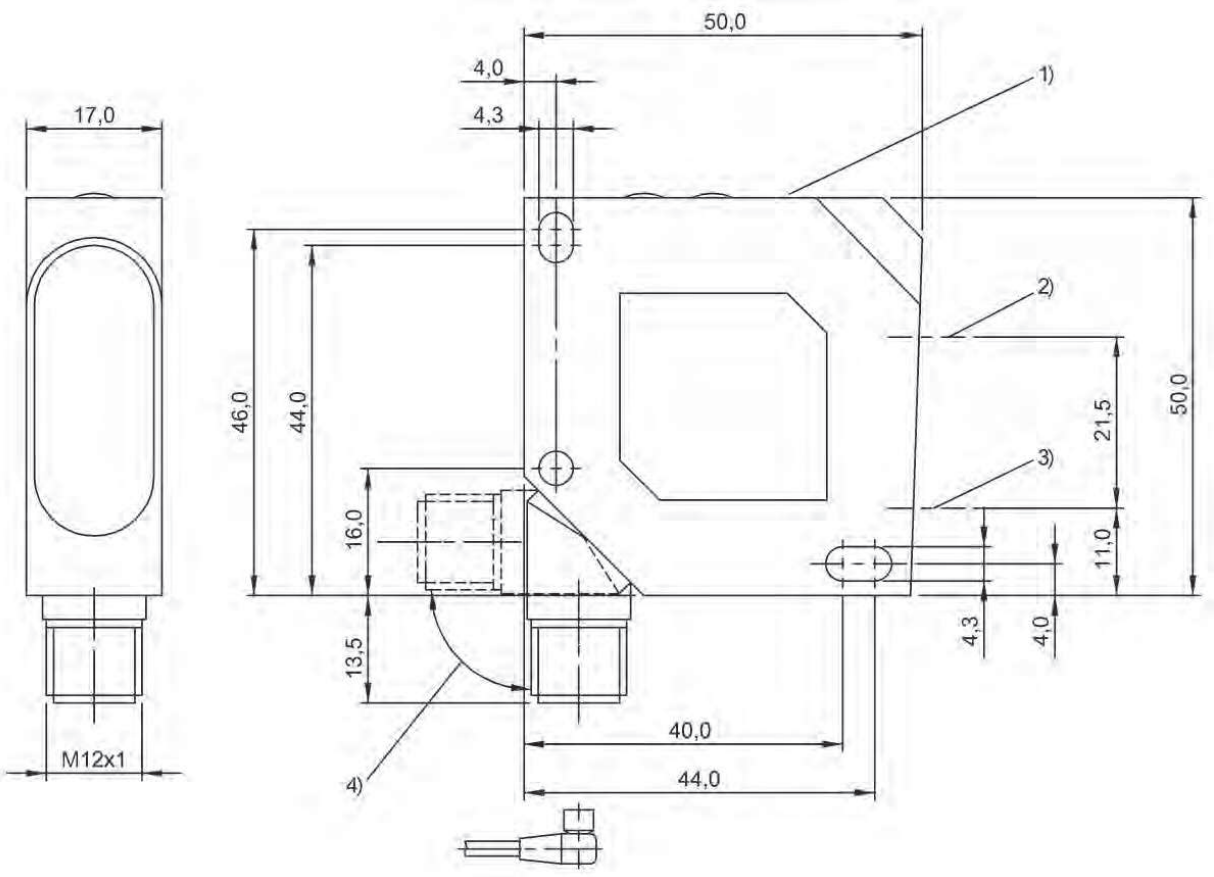
1) Display and control panel, 2) Optical axis receiver, 3) Optical axis emitter, 4) rotatable 270°

BOD0002, BOD0004



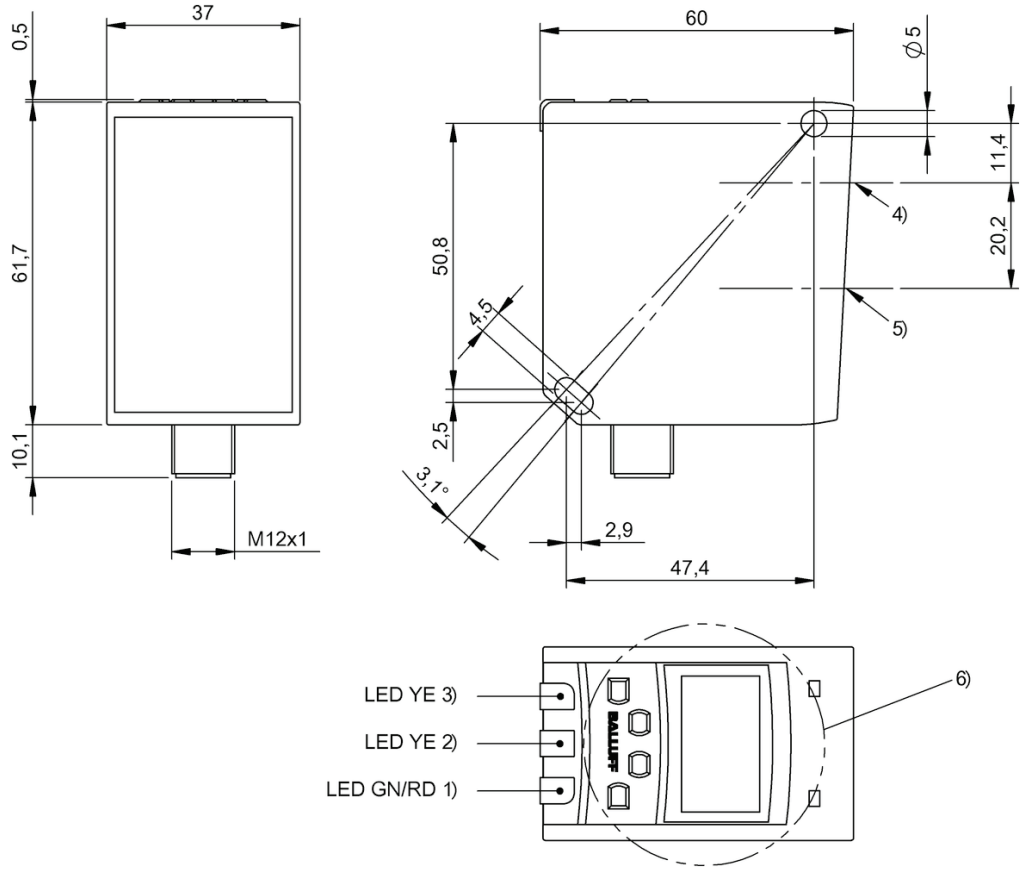
1) Display and control panel, 2) Optical axis emitter, 3) Optical axis receiver, 4) rotatable 270°

BOD0005, BOD0007, BOD000C



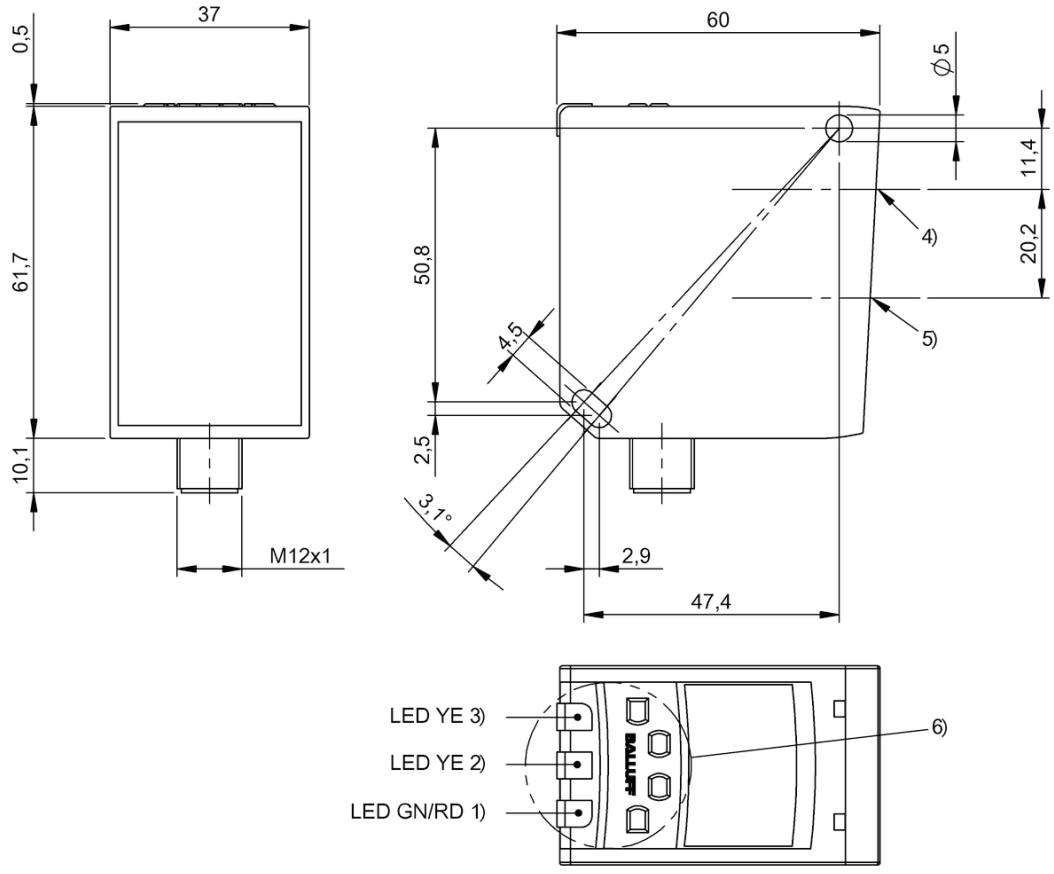
1) Display and control panel, 2) Optical axis emitter, 3) Optical axis receiver, 4) rotatable 270°

BOD0006, BOD0008, BOD000E



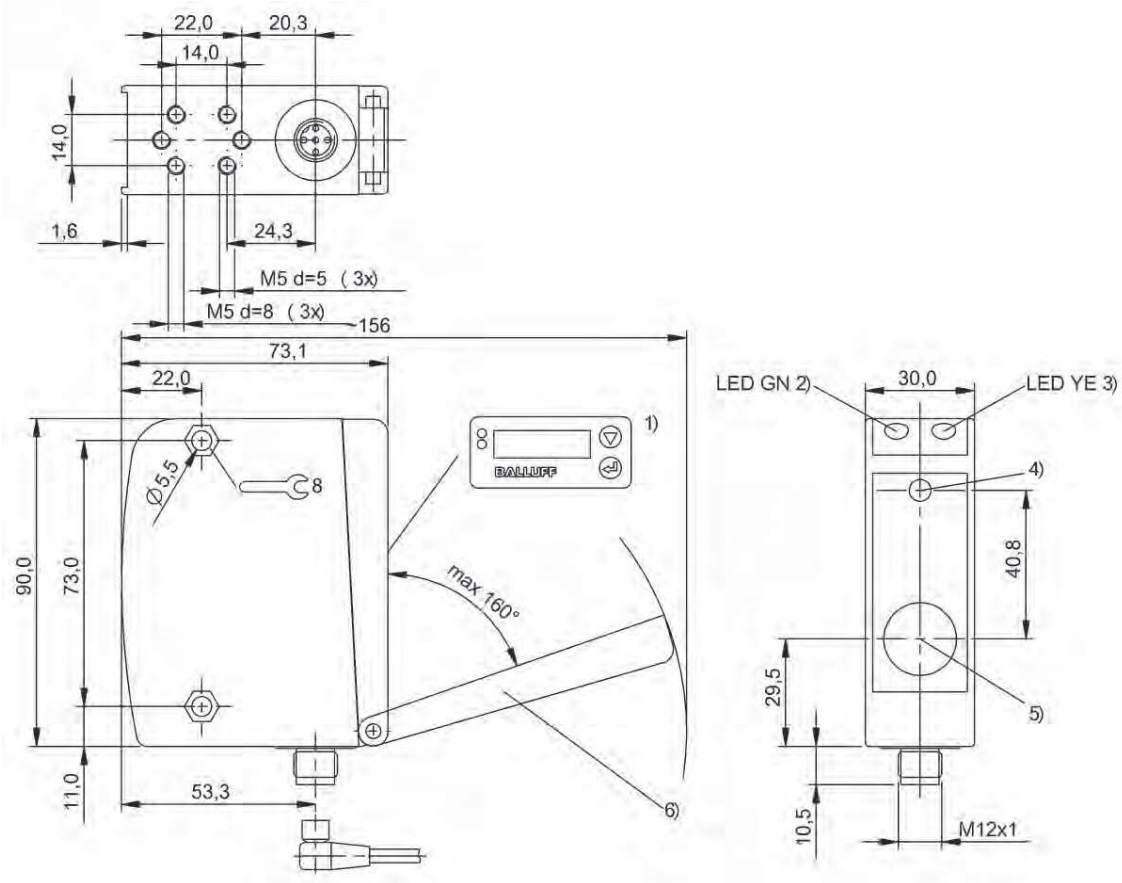
1) Operating voltage/Error, 2) Switchpoint Q2, 3) Switchpoint Q1, 4) Optical axis emitter, 5) Optical axis receiver, 6) Display and keypad

BOD001Y



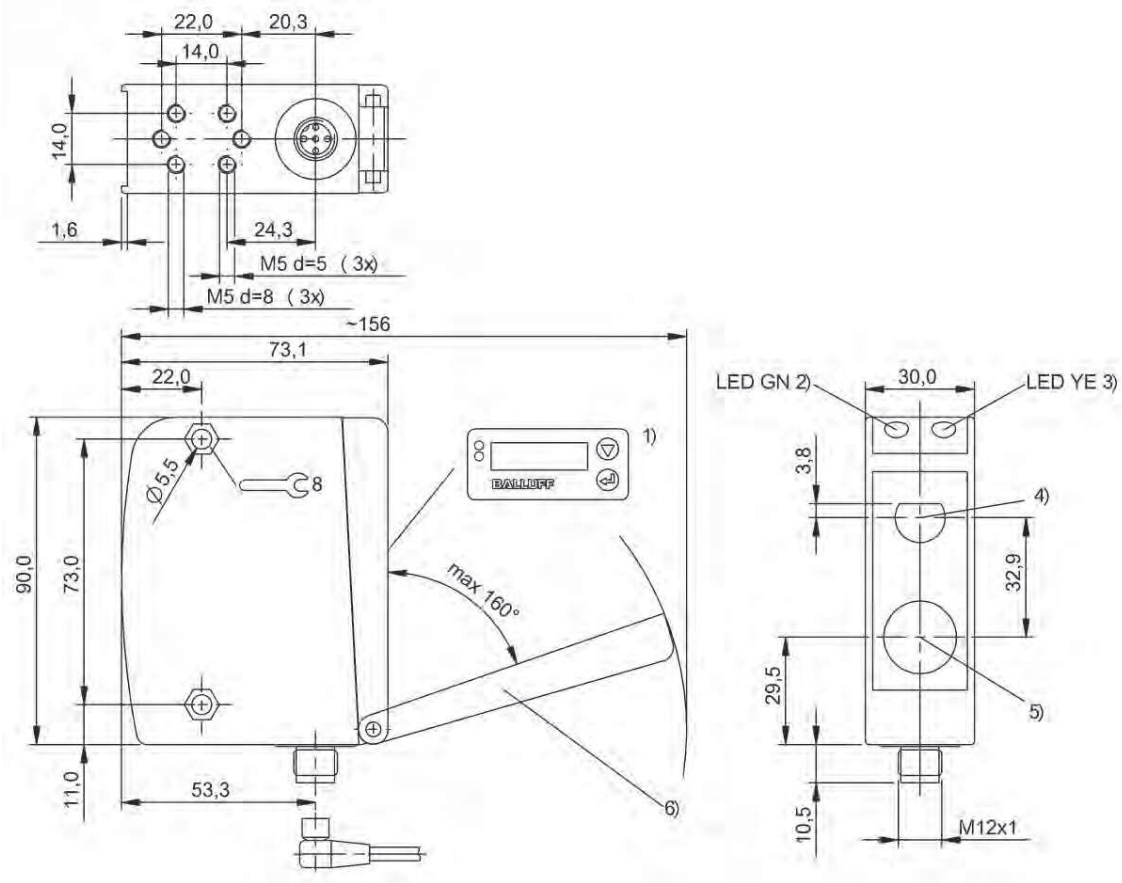
1) Operating voltage/Error, 2) Switchpoint Q2, 3) Switchpoint Q1, 4) Optical axis emitter, 5) Optical axis receiver, 6) Display and control panel

BOD001U, BOD001W



1) 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