



Sure position detection even at high speeds

MAGNETIC FIELD SENSORS



Our magnetic field sensors are used chiefly on cylinders and grippers for monitoring the piston position. The sensor thus recognizes the field of the magnet integrated into the piston through the actuator wall even at high travel speeds.

With their non-contact position detection the magnetic field sensors from Balluff work absolutely reliably and wear-free: no contact burn, no bouncing, just clean switching points.

The most important benefits

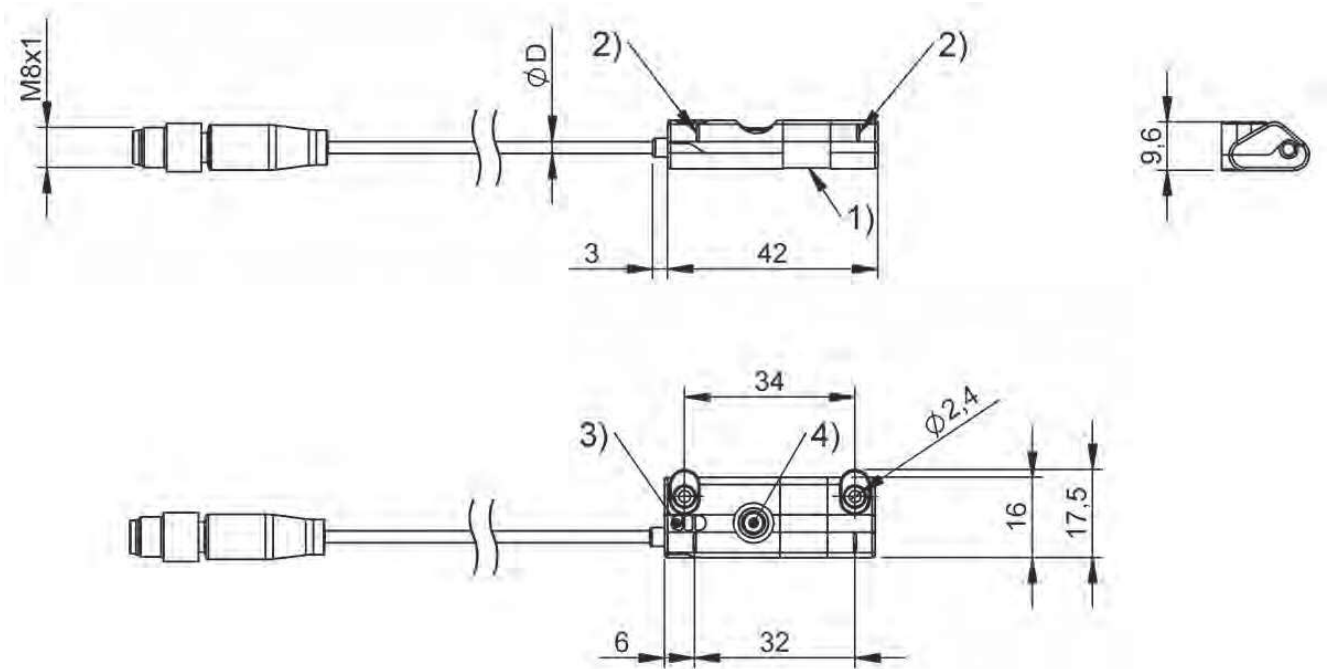
- Contact-free and therefore wear-free
- No double switching points
- Reliable even at high travel speeds



	BMP007 BMP 01-EL1PP21A-0032-00-P00,5-S75	
Measuring range	32 mm	
Dimension	17.5 x 9.6 x 42 mm	
Analog output	Analog, voltage/Analog, current selectable 0...10 V/4...20 mA	
Interface	IO-Link 1.1	
Resolution	≤ 1 μm (IO-Link), 12 bits (analog)	
Repeat accuracy	± 100 μm	
Non-linearity typ.	±250 μm	
Operating voltage U _b	15...30 VDC	
Connection	Cable with connector, M8x1-Male, 4-pin, 0.5 m, PUR	
Housing material	PA 12 Aluminum	
Ambient temperature	-25...85 °C	
IP rating	IP67	
Approval/Conformity	CE, cULus LISTED, IO-Link, WEEE, EAC	
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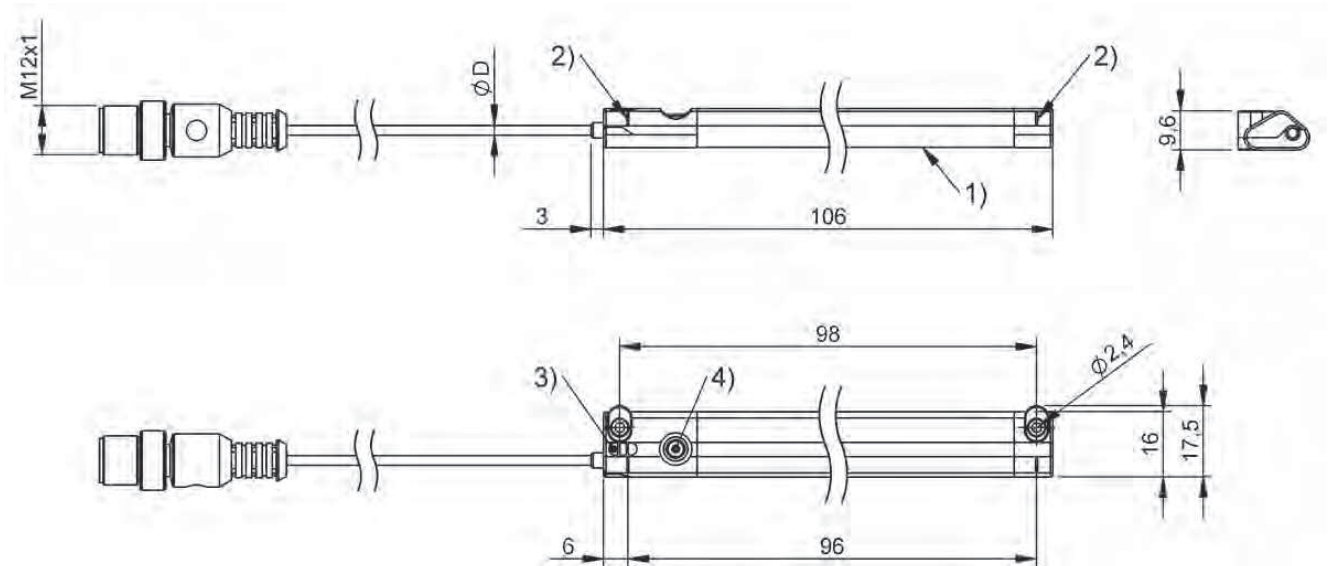


	BMP000N BMP 01-EL1PP21A-0096-00-P00,5-S4	BMP0009 BMP 01-EL1PP21A-0160-00-P02	BMP000K BMP 01-EL1PP21A-0256-00-P00,5-S75
	96 mm	160 mm	256 mm
	17.5 x 9.6 x 106 mm	17.5 x 9.6 x 170 mm	17.5 x 9.6 x 266 mm
	Analog, voltage/Analog, current selectable 0...10 V/4...20 mA	Analog, voltage/Analog, current selectable 0...10 V/4...20 mA	Analog, voltage/Analog, current selectable 0...10 V/4...20 mA
	IO-Link 1.1	IO-Link 1.1	IO-Link 1.1
	≤ 1 μm (IO-Link), 12 bits (analog)	≤ 1 μm (IO-Link), 12 bits (analog)	≤ 1 μm (IO-Link), 12 bits (analog)
	± 100 μm	± 100 μm	± 100 μm
	±250 μm	±250 μm	±250 μm
	15...30 VDC	15...30 VDC	15...30 VDC
	Cable with connector, M12x1-Male, 4-pin, 0.5 m, PUR	Cable, 2 m, PUR	Cable with connector, M8x1-Male, 4-pin, 0.5 m, PUR
	PA 12 Aluminum	PA 12 Aluminum	PA 12 Aluminum
	-25...85 °C	-25...85 °C	-25...85 °C
	IP67	IP67	IP67
	CE, cULus LISTED, IO-Link, WEEE, EAC	CE, cULus LISTED, IO-Link, WEEE, EAC	CE, cULus LISTED, IO-Link, WEEE, EAC
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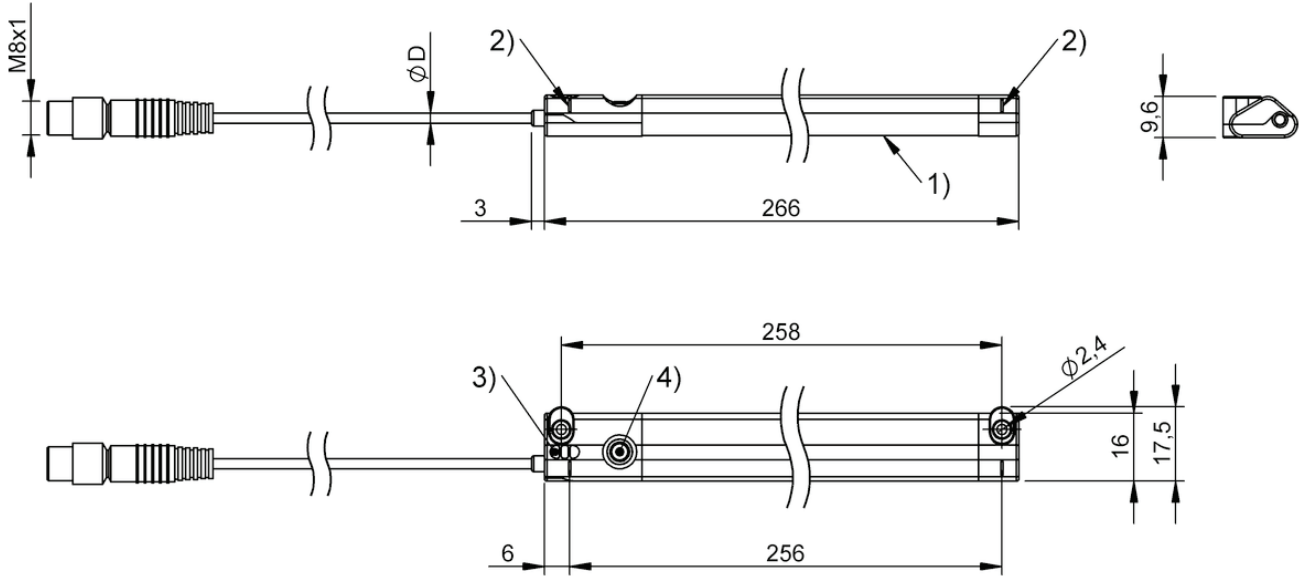
1) Sensing surface, 2) Notch, 3) LED function indicator, 4) Button

BMP0007



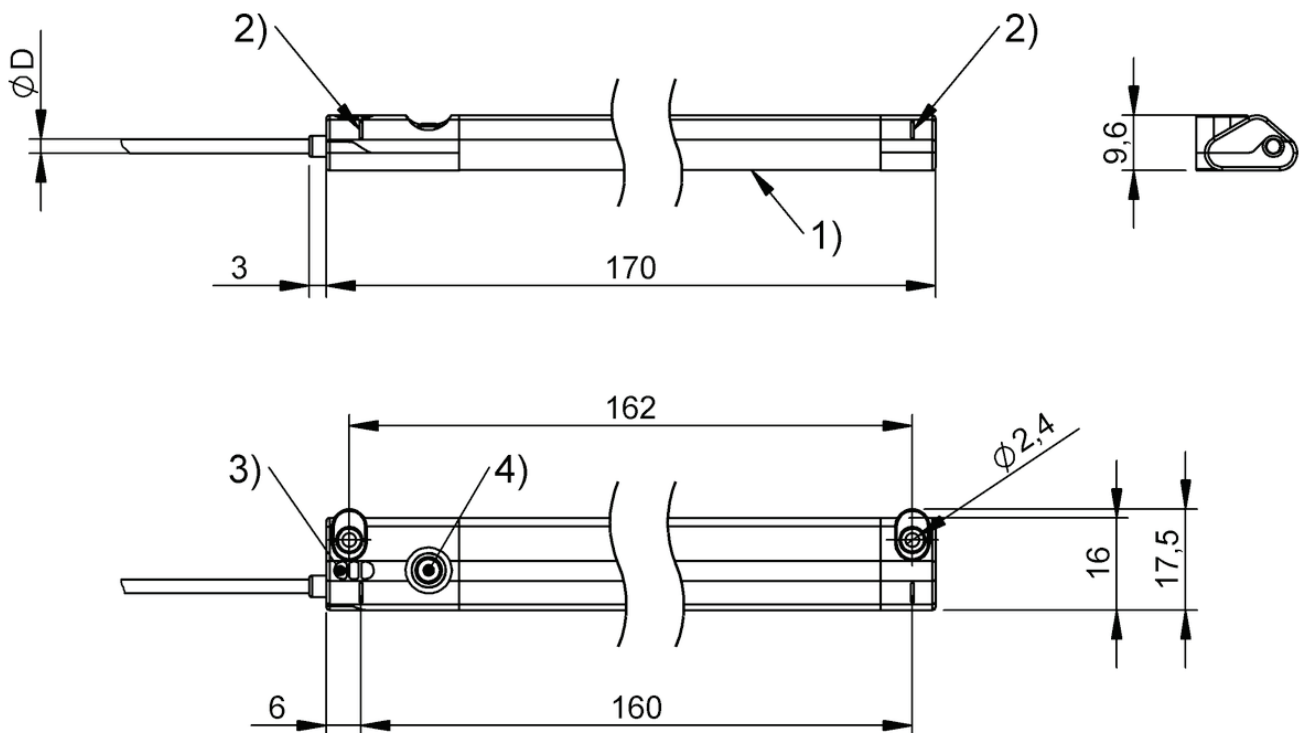
1) Sensing surface, 2) Notch, 3) LED function indicator, 4) Button

BMP000N



1) Sensing surface, 2) Notch, 3) LED function indicator, 4) Button

BMP000K



1) Sensing surface, 2) Notch, 3) LED function indicator, 4) Button

BMP0009



	BMF00N2 BMF 415KW-HAKKI-W-5-S0-02	BMF00N3 BMF 415KW-HAPS-W-5-S0-02	BMF00NL BMF 415KW-HAKKI-W-5-P0-S4-00,3	
Dimension	5 x 6.4 x 34 mm	5 x 6.4 x 34 mm	5 x 6.4 x 34 mm	
Connection	—	—	M12x1-Male, 4-pin, A-coded	
Cable	Silicone welding spark resistant black, 2 m	Silicone welding spark resistant black, 2 m	TPU welding spark resistant black, 300 mm	
Application	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view., Welding area	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view., Welding area	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view., Welding area	
Mounting	can be installed in T-slot from above	can be installed in T-slot from above	can be installed in T-slot from above	
Teach function	—	—	—	
Housing material	PA 12	PA 12	PA 12	
Interface	IO-Link 1.1	—	IO-Link 1.1	
Switching output	IO configurable NO/NC	PNP normally open (NO)	IO configurable NO/NC	
Switching frequency	—	—	—	
Operating voltage U_b	18...30 VDC	10...30 VDC	18...30 VDC	
Ambient temperature	0...80 °C	0...80 °C	0...80 °C	
Magnetic field immune	—	—	—	
IP rating	IP67	IP67	IP67	
Approval/Conformity	UL Listed, CE, RoHS, WEEE, IO-Link, EAC	CE, cULus, RoHS, WEEE, EAC	CE, cULus, RoHS, WEEE, IO-Link, EAC	
Ex category	—	—	—	
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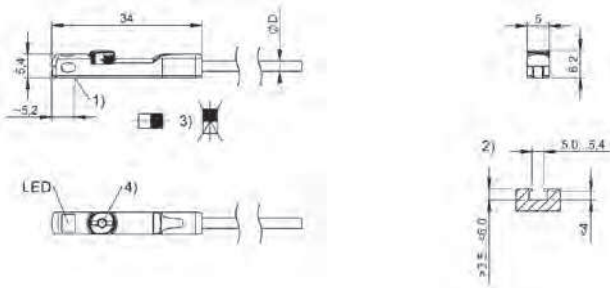
	BMF00MU BMF 415KW-HAKKI-W-5-P3-S75-00,3	BMF00NM BMF 415KW-HAPS-W-5-P0-S4-00,3	BMF00MW BMF 415KW-HAPS-W-5-P3-S49-00,3	BMF00L6 BMF 235K-H-PS-C-A2-S75-00,3	BMF00C6 BMF 235K-P0-C-2A-SA2-S49-00,3
	5 x 6.4 x 34 mm	5 x 6.4 x 34 mm	5 x 6.4 x 34 mm	23.5 x 6.2 x 5 mm	23.5 x 5 x 5.5 mm
	M8x1-Male, 4-pin, A-coded	M12x1-Male, 3-pin, A-coded	M8x1-Male, 3-pin, A-coded	M8x1-Male, 4-pin	M8x1-Male, 3-pin
	TPU welding spark resistant orange, 300 mm	TPU welding spark resistant black, 300 mm	TPU welding spark resistant orange, 300 mm	PUR, 0.30 m	PUR, 0.3 m
	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view., Welding area	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view., Welding area	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view., Welding area	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.
	can be installed in T-slot from above	can be installed in T-slot from above	can be installed in T-slot from above	can be installed in T-slot from above	can be installed in T-slot from above
	—	—	—	2 switching points	—
	PA 12	PA 12	PA 12	PA 12	PA 12
	IO-Link 1.1	—	—	—	—
	IO configurable NO/NC	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	PNP normally closed (NC)
	—	—	—	—	3000 Hz
	18...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	0...80 °C	0...80 °C	0...80 °C	-25...80 °C	-25...85 °C
	—	—	—	—	—
	IP67	IP67	IP67	IP67	IP67
	CE, cULus, RoHS, WEEE, IO-Link, EAC	CE, cULus, RoHS, WEEE, EAC	CE, cULus, RoHS, WEEE, EAC	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	—	—	—	—	—
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	BMF00C5 BMF 235K-PS-C-2A-SA2-S4-00,3	BMF00C4 BMF 235K-PS-C-2A-SA2-S49-00,3	BMF00C9 BMF 235K-PS-C-2A-SA95-S4-00,3	
Dimension	23.5 x 5 x 5.5 mm	23.5 x 5 x 5.5 mm	23.5 x 5 x 5.5 mm	
Connection	M12x1-Male, 4-pin, A-coded	M8x1-Male, 3-pin	M12x1-Male, 4-pin, A-coded	
Cable	PUR, 0.3 m	PUR, 0.3 m	PUR, 0.3 m	
Application	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.	
Mounting	can be installed in T-slot from above	can be installed in T-slot from above	can be installed in T-slot from above	
Teach function	—	—	—	
Housing material	PA 12	PA 12	PA 12	
Interface	—	—	—	
Switching output	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	
Switching frequency	3000 Hz	3000 Hz	3000 Hz	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Ambient temperature	-25...85 °C	-25...85 °C	-25...85 °C	
Magnetic field immune	—	—	—	
IP rating	IP67	IP67	IP67	
Approval/Conformity	CE, cULus, EAC, WEEE	cULus, CE, WEEE, EAC	CE, cULus, EAC, WEEE	
Ex category	—	—	—	
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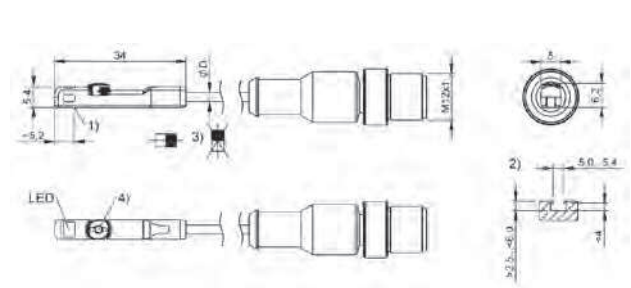


	BMF00CA BMF 235K-PS-C-2A-SA95-S75-00,3	BMF00AR BMF 235K-PS-C-2A-PU-02	BMF00M5 BMF 405KF-PS-C-2A-S4-00,3	BMF00LW BMF 405KF-PO-C-2A-EY-02	BMF00E4 BMF 255K-N-06-EEX
	23.5 x 5 x 5.5 mm	23.5 x 5 x 5.5 mm	5 x 5.4 x 27 mm	5 x 5.4 x 27 mm	25 x 5 x 5.1 mm
	M8x1-Male, 4-pin	—	M12x1-Male, 3-pin, A-coded	—	—
	PUR, 0.3 m	PUR, 2 m	TPE-V, 0.3 m	TPE-V, 2 m	PVC, 6 m
	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.	—	—	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.
	can be installed in T-slot from above	can be installed in T-slot from above	—	—	can be installed in T-slot from above
	—	—	—	—	—
	PA 12	PA 12	PP	PP	PA
	—	—	—	—	NAMUR
	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	PNP normally closed (NC)	—
	3000 Hz	3000 Hz	10000 Hz	10000 Hz	2000 Hz
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	—
	-25...85 °C	-25...85 °C	-40...100 °C	-40...100 °C	-25...70 °C
	—	—	—	—	—
	IP67	IP67	IP67, IP68, IP69K	IP67, IP68, IP69K	IP67
	CE, cULus, EAC, WEEE	cULus, CE, WEEE, EAC	cULus, CE, Ecolab, RoHS, EAC, WEEE	cULus, CE, Ecolab, RoHS, EAC, WEEE	CE, EAC, ATEX, IECEx, WEEE
	—	—	—	—	ATEX: 1G (EPL Ga) ATEX: 1D (EPL Da)
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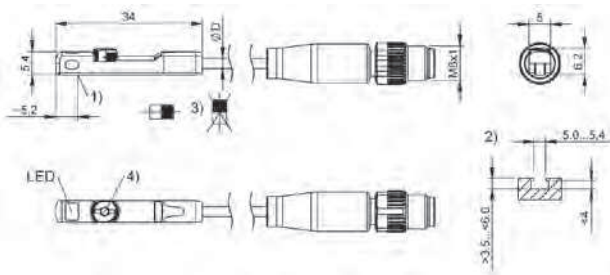
1) Position sensor element, 2) see remarks, 3) see remarks, 4) see remarks

BMF00N2, BMF00N3



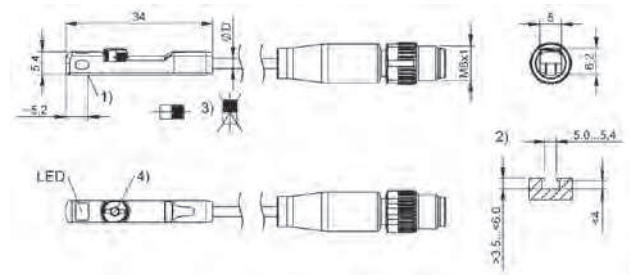
1) Position sensor element, 2) see remarks, 3) see remarks, 4) see remarks

BMF00NL, BMF00NM



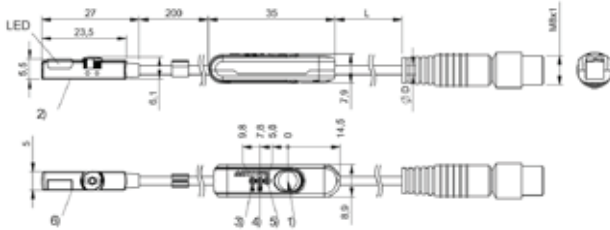
1) Position sensor element, 2) see remarks, 3) see remarks, 4) see remarks

BMF00MU



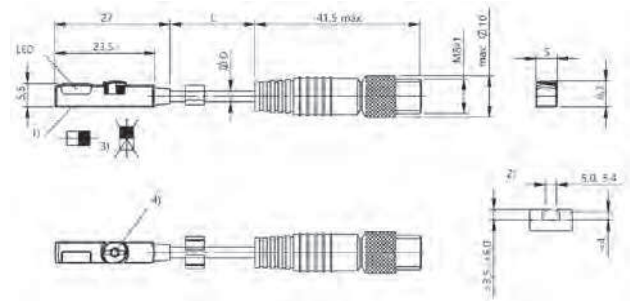
1) Position sensor element, 2) see remarks, 3) see remarks, 4) see remarks

BMF00MW



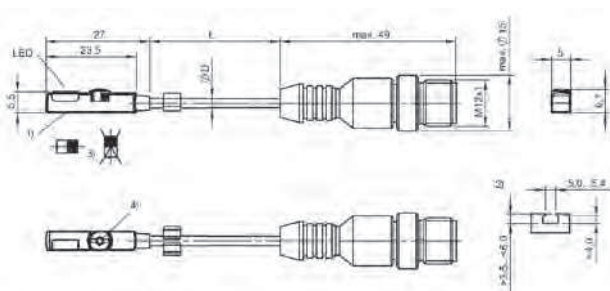
1) Teach-In button, 2) Sensing surface, 3) Output 1 active, 4) Output 2 active, 5) LED Power, 6) Null point

BMF00L6



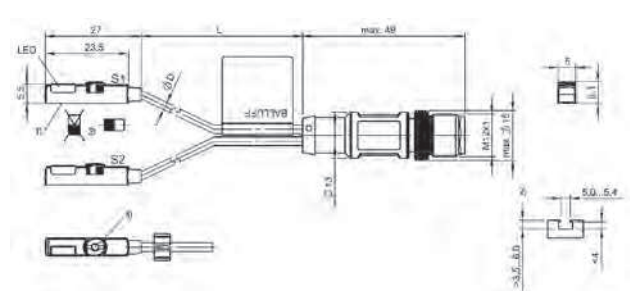
1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks

BMF00C6, BMF00C4



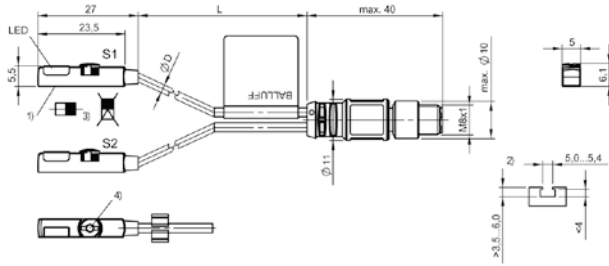
1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks

BMF00C5



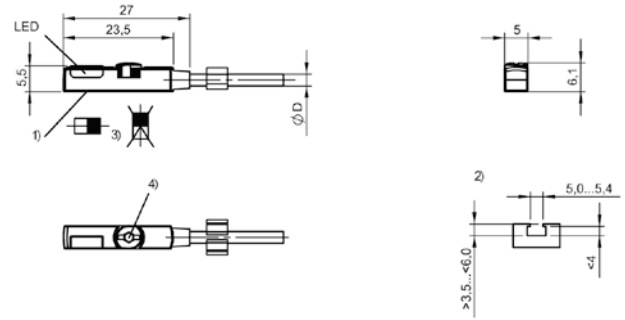
1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks

BMF00C9



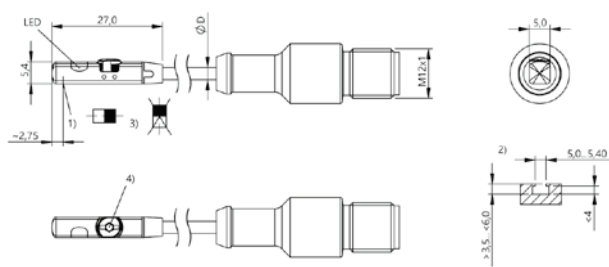
1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks

BMF00CA



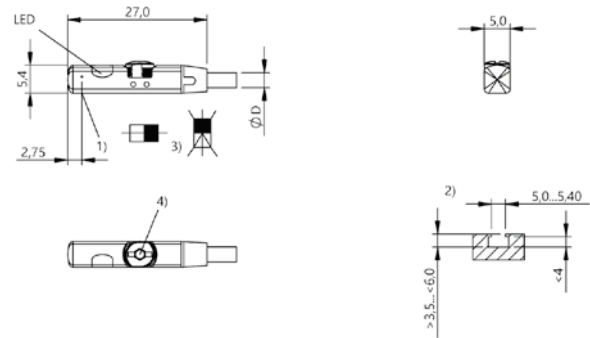
1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks

BMF00AR



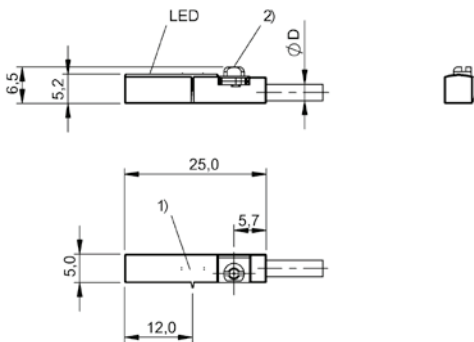
1) Position sensor element, 2) see remarks, 3) see remarks, 4) see remarks

BMF00M5



1) Position sensor element, 2) see remarks, 3) see remarks, 4) see remarks

BMF00LW



1) Sensing surface, 2) Mounting clamp

BMF00E4



	BMF00JH BMF 203K-H-PS-C-A2-S75-00,3	BMF00JF BMF 203K-H-PS-C-A2-PU-02	
Dimension	20 x 2.9 x 3.6 mm	20 x 2.9 x 3.6 mm	
Connection	M8x1-Male, 4-pin	—	
Cable	PUR, 0.3 m	PUR, 2 m	
Application	Pneumatic cylinder with C-slot. For dimensions, see sketch in product view.	Pneumatic cylinder with C-slot. For dimensions, see sketch in product view.	
Mounting	can be installed in C-slot from above	can be installed in C-slot from above	
Teach function	2 switching points	2 switching points	
Housing material	PA 12	PA 12	
Interface	—	—	
Switching output	PNP normally open (NO)	PNP normally open (NO)	
Switching frequency	15 Hz	15 Hz	
Operating voltage U_b	10...30 VDC	10...30 VDC	
Ambient temperature	-25...80 °C	-25...80 °C	
Magnetic field immune	—	—	
IP rating	IP67	IP67	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Ex category	—	—	
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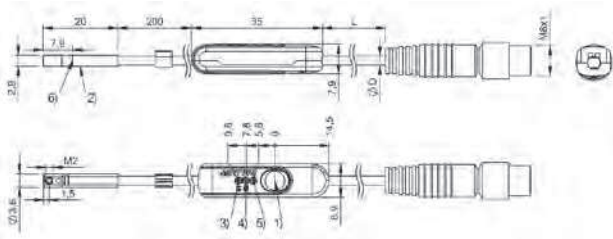
	BMF00HF BMF 233K-PS-C-2A-SA2-S49-00,3	BMF00J2 BMF 233K-PS-C-2A-SA95-S4-00,3	BMF00J1 BMF 233K-PS-C-2A-SA95-S75-00,3	BMF00HA BMF 233K-PS-C-2A-PU-02
	24 x 2.9 x 3.6 mm	24 x 2.9 x 3.6 mm	24 x 2.9 x 3.6 mm	24 x 2.9 x 3.6 mm
	M8x1-Male, 3-pin	M12x1-Male, 4-pin, A-coded	M8x1-Male, 4-pin	—
	PUR, 0.3 m	PUR, 0.3 m	PUR, 0.3 m	PUR, 2 m
	Pneumatic cylinder with C-slot, e.g. Festo, Sommer, etc.	Pneumatic cylinder with C-slot, e.g. Festo, Sommer, etc.	Pneumatic cylinder with C-slot, e.g. Festo, Sommer, etc.	Pneumatic cylinder with C-slot, e.g. Festo, Sommer, etc.
	can be installed in C-slot from above	can be installed in C-slot from above	can be installed in C-slot from above	can be installed in C-slot from above
	—	—	—	—
	PA 12	PA 12	PA 12	PA 12
	—	—	—	—
	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)
	3000 Hz	3000 Hz	3000 Hz	3000 Hz
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	-25...85 °C	-25...85 °C	-25...85 °C	-25...85 °C
	—	—	—	—
	IP67	IP67	IP67	IP67
	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC
	—	—	—	—
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	BMF00ER BMF 243K-PS-C-2A-SA2-S4-00,3	BMF00EL BMF 243K-PS-C-2A-SA2-S49-00,3	
Dimension	24 x 3 x 3.75 mm	24 x 3 x 3.75 mm	
Connection	M12x1-Male, 4-pin, A-coded	M8x1-Male, 3-pin	
Cable	PUR, 0.3 m	PUR, 0.3 m	
Application	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Sommer, Gimatic (*not suitable for Festo Series ADVC and AEVC)	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Sommer, Gimatic (*not suitable for Festo Series ADVC and AEVC)	
Mounting	can be installed in C-slot from above	can be installed in C-slot from above	
Teach function	—	—	
Housing material	PA 12	PA 12	
Interface	—	—	
Switching output	PNP normally open (NO)	PNP normally open (NO)	
Switching frequency	3000 Hz	3000 Hz	
Operating voltage U_b	10...30 VDC	10...30 VDC	
Ambient temperature	-25...85 °C	-25...85 °C	
Magnetic field immune	—	—	
IP rating	IP67	IP67	
Approval/Conformity	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	
Ex category	—	—	
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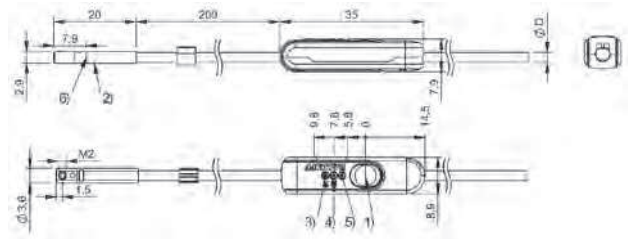


	BMF00F9 BMF 243K-PS-C-2A-SA95-S4-00,3	BMF00ET BMF 243K-PS-C-2A-SA95-S75-00,3	BMF00EF BMF 243K-PS-C-2A-PU-02	
	24 x 3 x 3.75 mm	24 x 3 x 3.75 mm	24 x 3 x 3.75 mm	
	M12x1-Male, 4-pin, A-coded	M8x1-Male, 4-pin	—	
	PUR, 0.3 m	PUR, 0.3 m	PUR, 2 m	
	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Sommer, Gimatic (*not suitable for Festo Series ADVK and AEVC)	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Sommer, Gimatic (*not suitable for Festo Series ADVK and AEVC)	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Sommer, Gimatic (*not suitable for Festo Series ADVK and AEVC)	
	can be installed in C-slot from above	can be installed in C-slot from above	can be installed in C-slot from above	
	—	—	—	
	PA 12	PA 12	PA 12	
	—	—	—	
	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	
	3000 Hz	3000 Hz	3000 Hz	
	10...30 VDC	10...30 VDC	10...30 VDC	
	-25...85 °C	-25...85 °C	-25...85 °C	
	—	—	—	
	IP67	IP67	IP67	
	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, WEEE, EAC	
	—	—	—	
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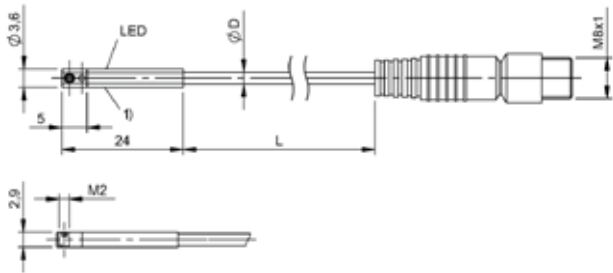
1) Teach-In button, 2) Sensing surface, 3) Output 1 active, 4) Output 2 active, 5) LED Power, 6) Null point

BMF00JH



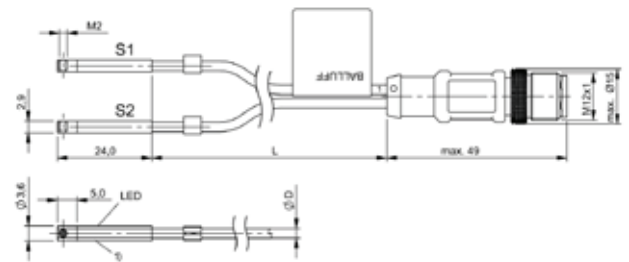
1) Teach-In button, 2) Sensing surface, 3) Output 1 active, 4) Output 2 active, 5) LED Power, 6) Null point

BMF00JF



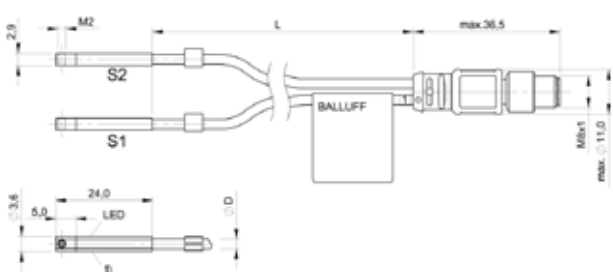
1) Sensing surface

BMF00HF



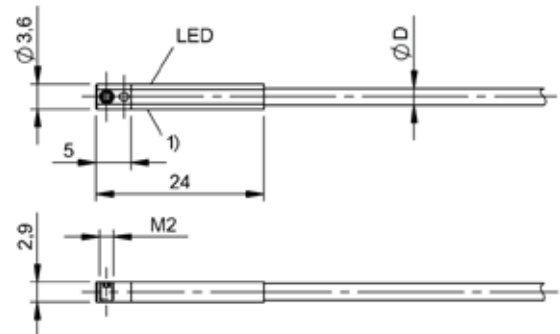
1) Sensing surface

BMF00J2



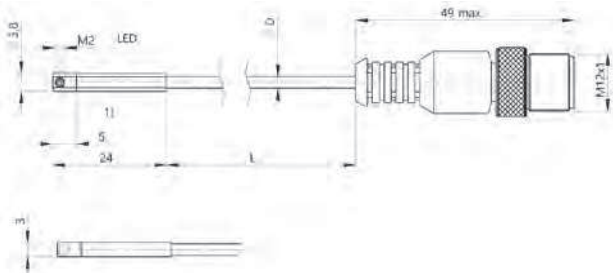
1) Sensing surface

BMF00J1



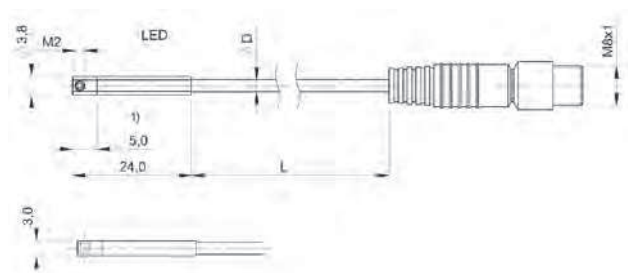
1) Sensing surface

BMF00HA



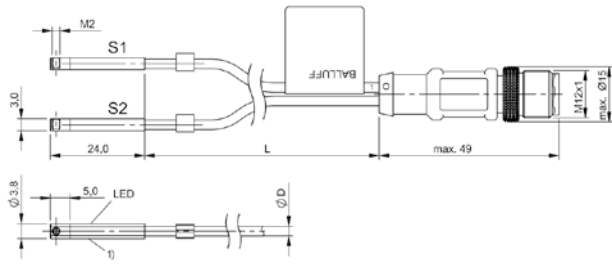
1) Sensing surface

BMF00ER



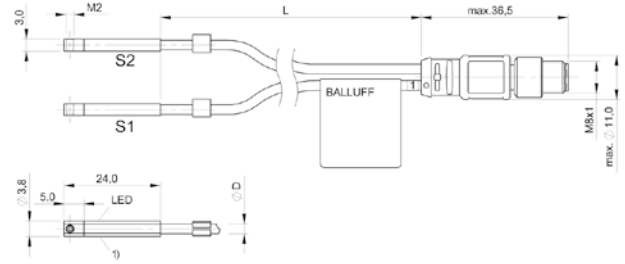
1) Sensing surface

BMF00EL



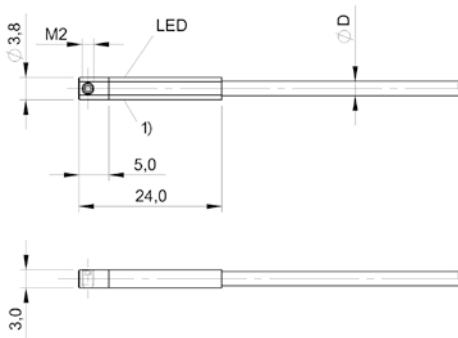
1) Sensing surface

BMF00F9



1) Sensing surface

BMF00ET



1) Sensing surface

BMF00EF



	BMF001L BMF 103K-PS-C-2A-SA2-S49-00,3	BMF001P BMF 103K-PS-C-2A-SA7-S49-00,3	BMF001R BMF 103K-PS-C-2A-SA95-S75-00,3	
Dimension	9 x 4.8 x 16 mm	9 x 4.8 x 16 mm	9 x 4.8 x 16 mm	
Connection	M8x1-Male, 3-pin	M8x1-Male, 3-pin	M8x1-Male, 4-pin	
Cable	PUR, 0.3 m	PUR, 0.3 m	PUR, 0.3 m	
Application	Optimized response path especially suited for short-stroke cylinders.	radially magnetized magnets (Schunk)	Optimized response path especially suited for short-stroke cylinders.	
Mounting	Mounting bracket BMF 103-HW*	Mounting bracket BMF 103-HW*	Mounting bracket BMF 103-HW*	
Housing material	PBT	LCP	PBT	
Interface	—	—	—	
Switching output	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	
Switching frequency	30000 Hz	7000 Hz	30000 Hz	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Ambient temperature	-25...85 °C	-25...85 °C	-25...85 °C	
Magnetic field immune	—	—	—	
IP rating	IP67	IP67	IP67	
Approval/Conformity	cULus, CE, WEEE, EAC	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Productview	Page 660	Page 660	Page 660	



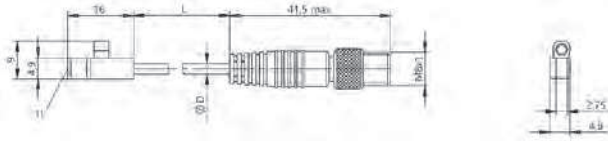
	BMF001E BMF 103K-PS-C-2A-PU-02	BMF0043 BMF 303K-PS-C-2A-SA2-S49-00,3	BMF004C BMF 303K-PS-C-2A-SA7-S49-00,3	BMF004E BMF 303K-PS-C-2A-SA95-S4-00,3	BMF004F BMF 303K-PS-C-2A-SA95-S75-00,3
	9 x 4.8 x 16 mm	25.5 x 3 x 4.5 mm	25.5 x 3 x 4.5 mm	25.5 x 3 x 4.5 mm	25.5 x 3 x 4.5 mm
	—	M8x1-Male, 3-pin	M8x1-Male, 3-pin	M12x1-Male, 4-pin, A-coded	M8x1-Male, 4-pin
	PUR, 2 m	PUR, 0.3 m	PUR, 0.3 m	PUR, 0.3 m	PUR, 0.3 m
	Optimized response path especially suited for short-stroke cylinders.	miniaturized actuators	radially magnetized magnets (Schunk)	miniaturized actuators	miniaturized actuators
	Mounting bracket BMF 103-HW*	Mounting bracket BMF 303-HW*	Mounting bracket BMF 303-HW*	Mounting bracket BMF 303-HW*	Mounting bracket BMF 303-HW*
	PBT	LCP	LCP	LCP	LCP
	—	—	—	—	—
	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)
	30000 Hz	30000 Hz	7000 Hz	30000 Hz	30000 Hz
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	-25...85 °C	-25...85 °C	-25...85 °C	-25...85 °C	-25...85 °C
	—	—	—	—	—
	IP67	IP67	IP67	IP67	IP67
	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE
	Page 660	Page 660	Page 660	Page 660	Page 660



	BMF003U BMF 303K-PS-C-2A-PU-02	BMF008F BMF 305M-PS-C-2-S49	BMF005L BMF 305K-PS-C-2-SA2-S49-00,3	
Dimension	25.5 x 3 x 4.5 mm	33.5 x 9 x 26.2 mm	33.5 x 5 x 10.5 mm	
Connection	—	M8x1-Male, 3-pin	M8x1-Male, 3-pin	
Cable	PUR, 2 m	—	PUR, 0.3 m	
Application	miniaturized actuators	larger actuators	larger actuators	
Mounting	Mounting bracket BMF 303-HW*	Mounting bracket BMF 305-HW*	Mounting bracket BMF 305-HW*	
Housing material	LCP	Aluminum	LCP	
Interface	—	—	—	
Switching output	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	
Switching frequency	30000 Hz	10000 Hz	10000 Hz	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Ambient temperature	-25...85 °C	-25...85 °C	-25...85 °C	
Magnetic field immune	—	—	—	
IP rating	IP67	IP67	IP67	
Approval/Conformity	cULus, CE, WEEE, EAC	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Productview	Page 660	Page 660	Page 660	

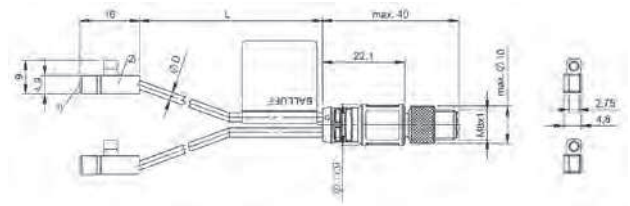


BMF0056 BMF 305K-PS-C-2-PU-02	BMF0087 BMF 32M-PS-C-2-S4	BMF0088 BMF 32M-PS-C-2-S49	BMF008A BMF 32M-PS-W-2-S4	
33.5 x 5 x 10.5 mm	25 x 11.9 x 26 mm	25 x 11.9 x 26 mm	25 x 11.9 x 26 mm	
—	M12x1-Male, 4-pin, A-coded	M8x1-Male, 3-pin	M12x1-Male, 4-pin, A-coded	
PUR, 2 m	—	—	—	
larger actuators	Round cylinder, Pneumatic cylinder with trapezoidal slot	Round cylinder, Pneumatic cylinder with trapezoidal slot	Round cylinder, Pneumatic cylinder with trapezoidal slot	
Mounting bracket BMF 305-HW*	with tube cuff	with tube cuff	with tube cuff	
LCP	Aluminum	Aluminum	Aluminum	
—	—	—	—	
PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	
10000 Hz	10000 Hz	10000 Hz	10 Hz	
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
-25...85 °C	-25...85 °C	-25...85 °C	-25...70 °C	
—	—	—	weld-immune (AC)	
IP67	IP67	IP67	IP67	
cULus, CE, WEEE, EAC	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	cULus, CE, WEEE, EAC	
Page 661	Page 661	Page 661	Page 661	



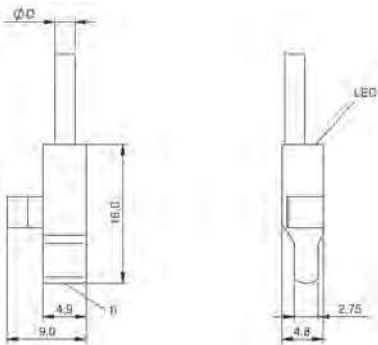
1) Sensing surface

BMF001L, BMF001P



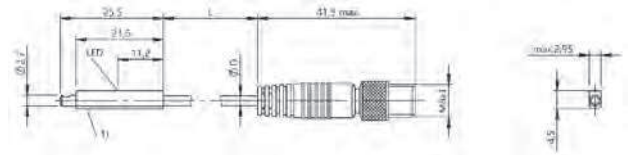
1) Sensing surface, 2) Sensor 1

BMF001R



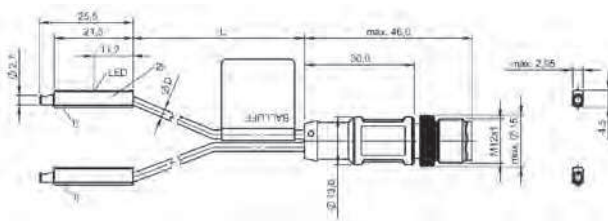
1) Sensing surface

BMF001E



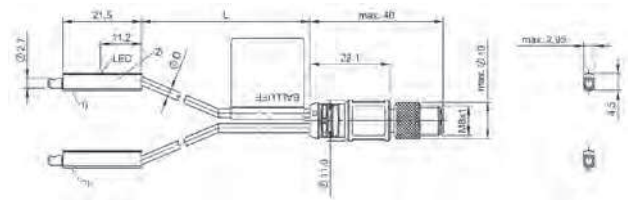
1) Sensing surface

BMF0043, BMF004C



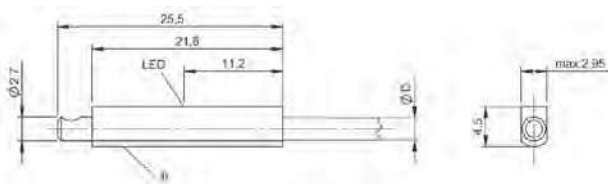
1) Sensing surface, 2) Sensor 1

BMF004E



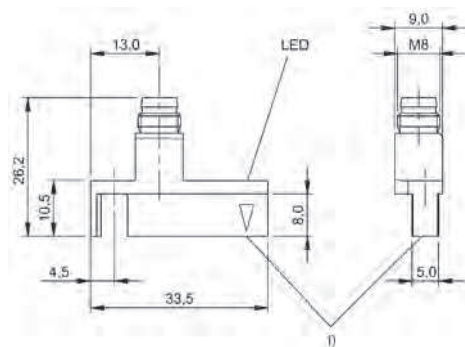
1) Sensing surface, 2) Sensor 1

BMF004F



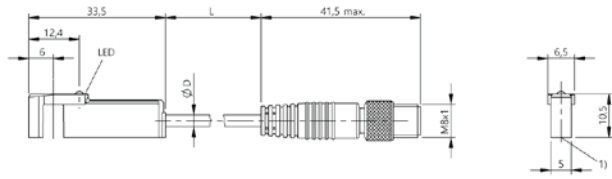
1) Sensing surface

BMF003U



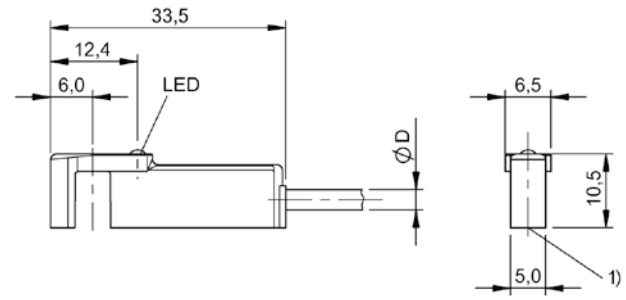
1) Sensing surface

BMF008F



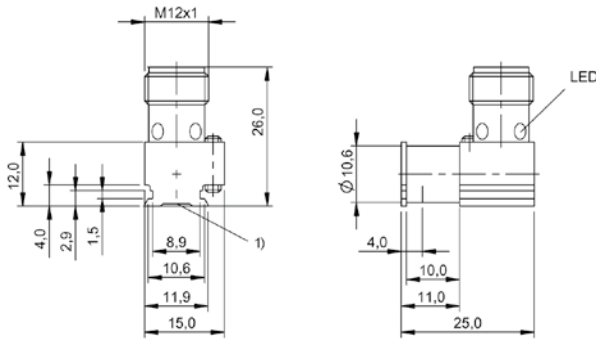
1) Sensing surface

BMF005L



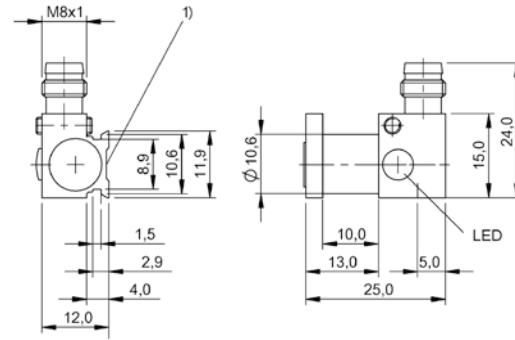
1) Sensing surface

BMF0056



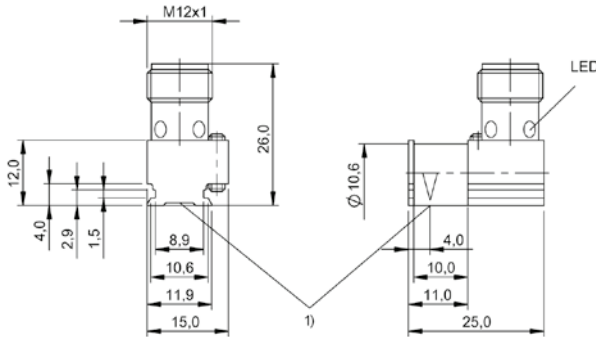
1) Sensing surface

BMF0087



1) Sensing surface

BMF0088



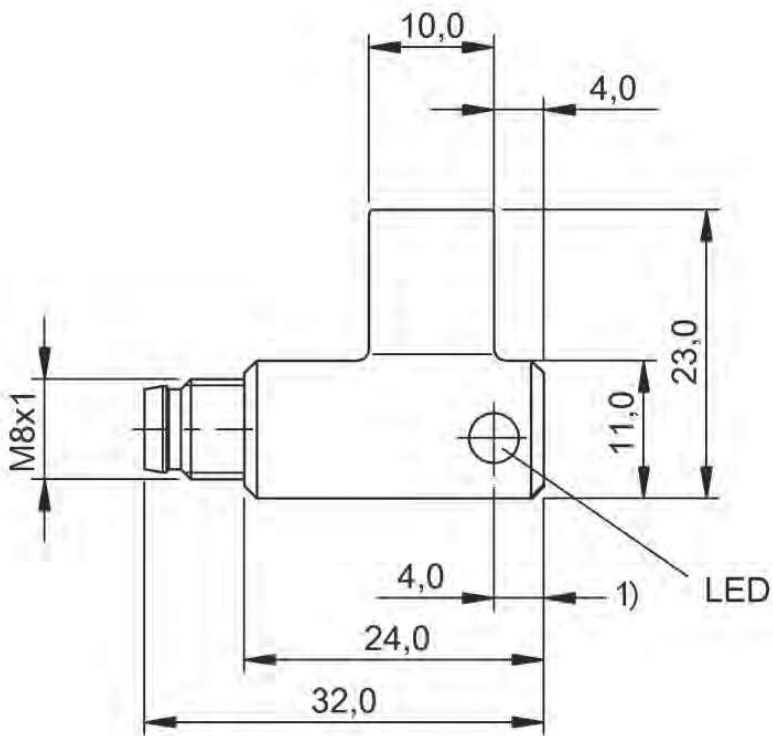
1) Sensing surface

BMF008A

Dimension	
Connection	
Cable	
Application	
Housing material	
Switching output	
Switching frequency	
Operating voltage U_b	
Ambient temperature	
Magnetic field immune	
IP rating	
Approval/Conformity	
Ex category	
Productview	

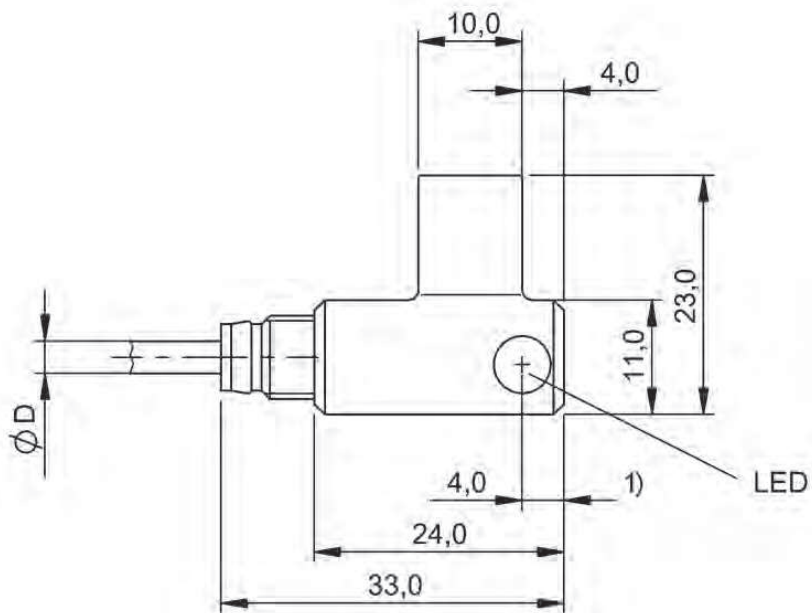


	BMF0029 BMF 21K-PS-C-2-S49	BMF0027 BMF 21K-PS-C-2-PU-03
	11 x 11 x 32 mm	33 x 23 x 11 mm
	M8x1-Male, 3-pin	—
	—	PUR, 3 m
	Pneumatic cylinder with tie rods, Pneumatic cylinder with DUO rail, Round cylinder, Profile cylinder	Pneumatic cylinder with tie rods, Pneumatic cylinder with DUO rail, Round cylinder, Profile cylinder
	PBT	PBT
	PNP normally open (NO)	PNP normally open (NO)
	10000 Hz	10000 Hz
	10...30 VDC	10...30 VDC
	-25...85 °C	-25...85 °C
	—	—
	IP67	IP67
	cULus, CE, WEEE, EAC	CE, cULus, EAC, WEEE
	—	—
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1) Measuring point, Sensing surface

BMF0029



1) Measuring point, Sensing surface

BMF0027



	BMF001R BMF 103K-PS-C-2A-SA95-S75-00,3	BMF004E BMF 303K-PS-C-2A-SA95-S4-00,3	
Dimension	9 x 4.8 x 16 mm	25.5 x 3 x 4.5 mm	
Connection	M8x1-Male, 4-pin	M12x1-Male, 4-pin, A-coded	
Cable	PUR, 0.3 m	PUR, 0.3 m	
Application	Optimized response path especially suited for short-stroke cylinders.	miniaturized actuators	
Mounting	Mounting bracket BMF 103-HW*	Mounting bracket BMF 303-HW*	
Housing material	PBT	LCP	
Switching output	PNP normally open (NO)	PNP normally open (NO)	
Switching frequency	30000 Hz	30000 Hz	
Operating voltage U_b	10...30 VDC	10...30 VDC	
Ambient temperature	-25...85 °C	-25...85 °C	
Magnetic field immune	—	—	
IP rating	IP67	IP67	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Productview	Page 670	Page 670	



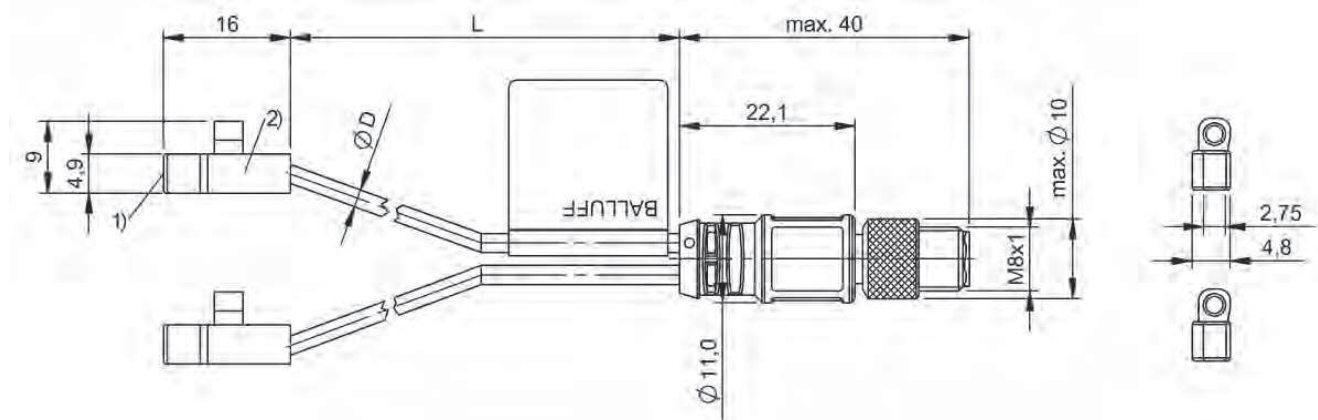
	BMF004F BMF 303K-PS-C-2A-SA95-S75-00,3	BMF00J2 BMF 233K-PS-C-2A-SA95-S4-00,3	BMF00J1 BMF 233K-PS-C-2A-SA95-S75-00,3	BMF00F9 BMF 243K-PS-C-2A-SA95-S4-00,3
	25.5 x 3 x 4.5 mm	24 x 2.9 x 3.6 mm	24 x 2.9 x 3.6 mm	24 x 3 x 3.75 mm
	M8x1-Male, 4-pin	M12x1-Male, 4-pin, A-coded	M8x1-Male, 4-pin	M12x1-Male, 4-pin, A-coded
	PUR, 0.3 m	PUR, 0.3 m	PUR, 0.3 m	PUR, 0.3 m
	miniaturized actuators	Pneumatic cylinder with C-slot, e.g. Festo, Sommer, etc.	Pneumatic cylinder with C-slot, e.g. Festo, Sommer, etc.	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Som- mer, Gimatic (*not suitable for Festo Series ADVC and AEVC)
	Mounting bracket BMF 303-HW*	can be installed in C-slot from above	can be installed in C-slot from above	can be installed in C-slot from above
	LCP	PA 12	PA 12	PA 12
	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)	PNP normally open (NO)
	30000 Hz	3000 Hz	3000 Hz	3000 Hz
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
	-25...85 °C	-25...85 °C	-25...85 °C	-25...85 °C
	—	—	—	—
	IP67	IP67	IP67	IP67
	CE, cULus, EAC, WEEE	cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC	CE, cULus, EAC, WEEE
	Page 671	Page 671	Page 672	Page 672



	BMF00ET BMF 243K-PS-C-2A-SA95-S75-00,3	BMF00C9 BMF 235K-PS-C-2A-SA95-S4-00,3	
Dimension	24 x 3 x 3.75 mm	23.5 x 5 x 5.5 mm	
Connection	M8x1-Male, 4-pin	M12x1-Male, 4-pin, A-coded	
Cable	PUR, 0.3 m	PUR, 0.3 m	
Application	Pneumatic cylinder with C-slot, e.g. SMC, Festo*, Schunk, Sommer, Gimatic (*not suitable for Festo Series ADVC and AEVC)	Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.	
Mounting	can be installed in C-slot from above	can be installed in T-slot from above	
Housing material	PA 12	PA 12	
Switching output	PNP normally open (NO)	PNP normally open (NO)	
Switching frequency	3000 Hz	3000 Hz	
Operating voltage U_b	10...30 VDC	10...30 VDC	
Ambient temperature	-25...85 °C	-25...85 °C	
Magnetic field immune	—	—	
IP rating	IP67	IP67	
Approval/Conformity	CE, cULus, EAC, WEEE	CE, cULus, EAC, WEEE	
Productview	Page 673	Page 673	

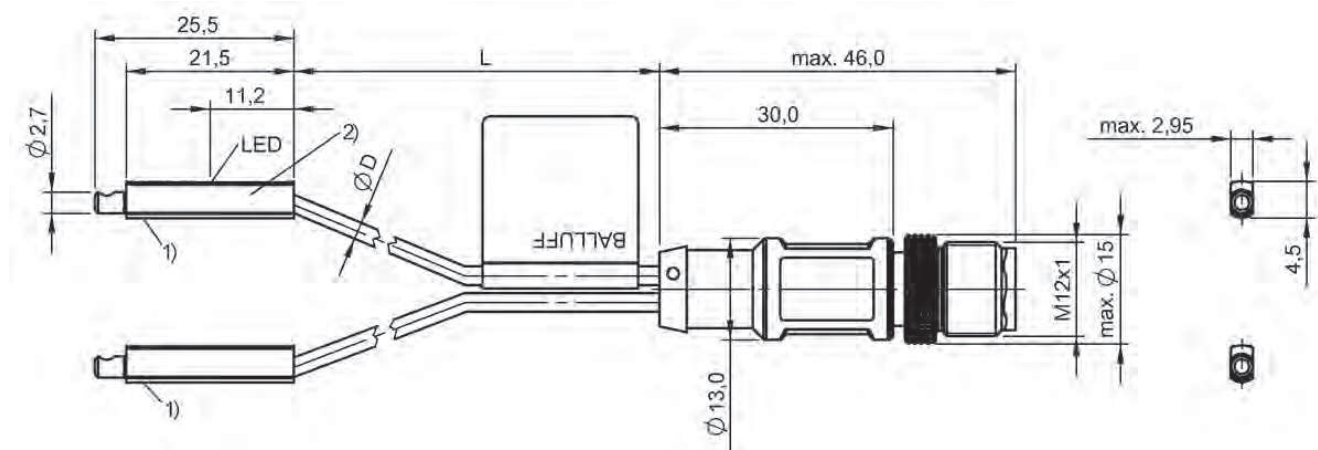


BMF00CA BMF 235K-PS-C-2A-SA95-S75-00,3			
23.5 x 5 x 5.5 mm			
M8x1-Male, 4-pin			
PUR, 0.3 m			
Pneumatic cylinder with T-slot. For dimensions, see sketch in product view.			
can be installed in T-slot from above			
PA 12			
PNP normally open (NO)			
3000 Hz			
10...30 VDC			
-25...85 °C			
—			
IP67			
CE, cULus, EAC, WEEE			
Page 674			



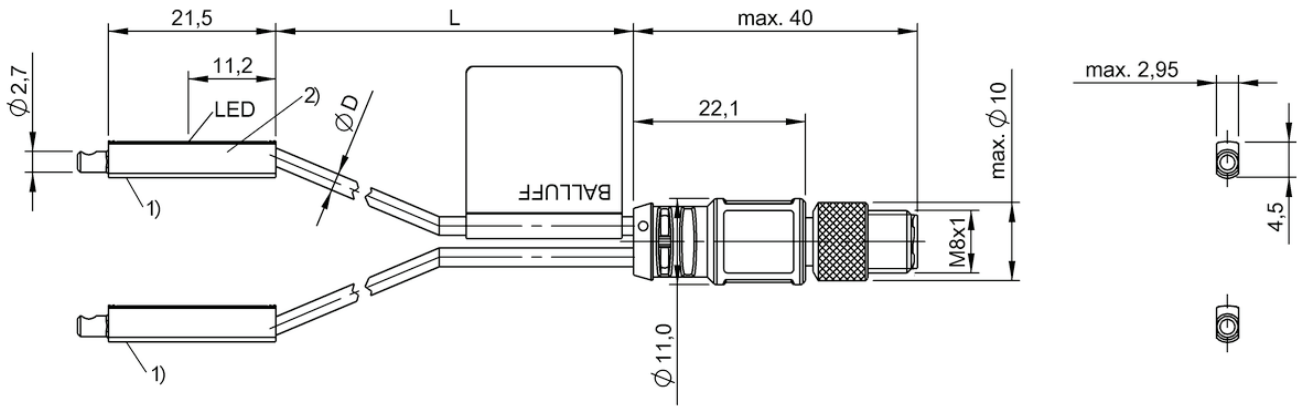
1) Sensing surface, 2) Sensor 1

BMF001R



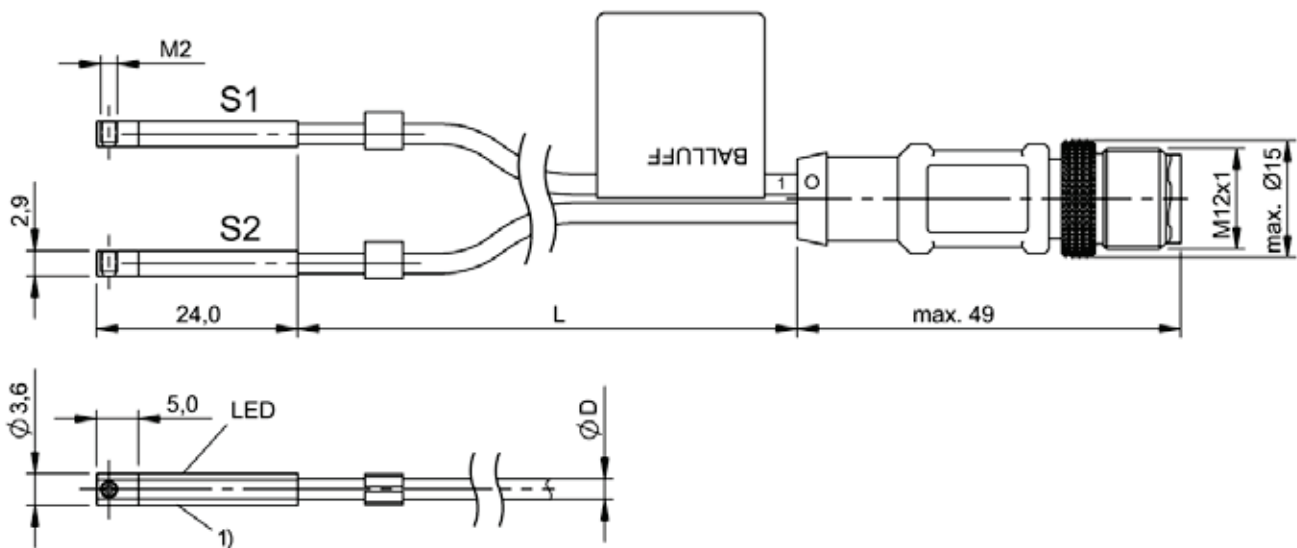
1) Sensing surface, 2) Sensor 1

BMF004E



1) Sensing surface, 2) Sensor 1

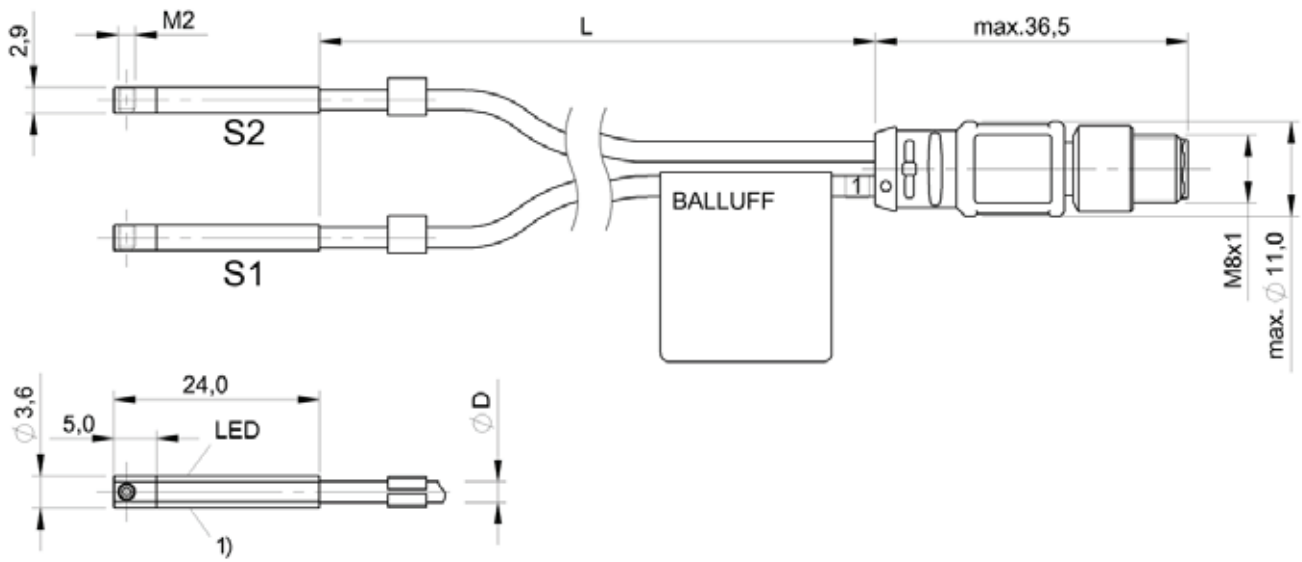
BMF004F



1) Sensing surface

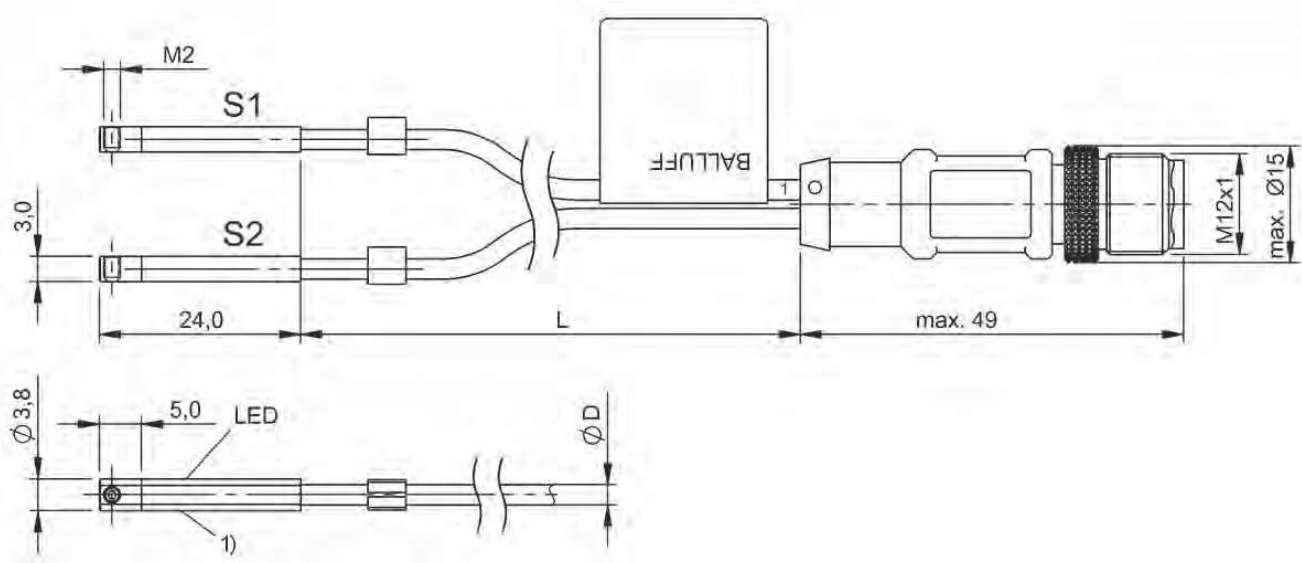
BMF00J2

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



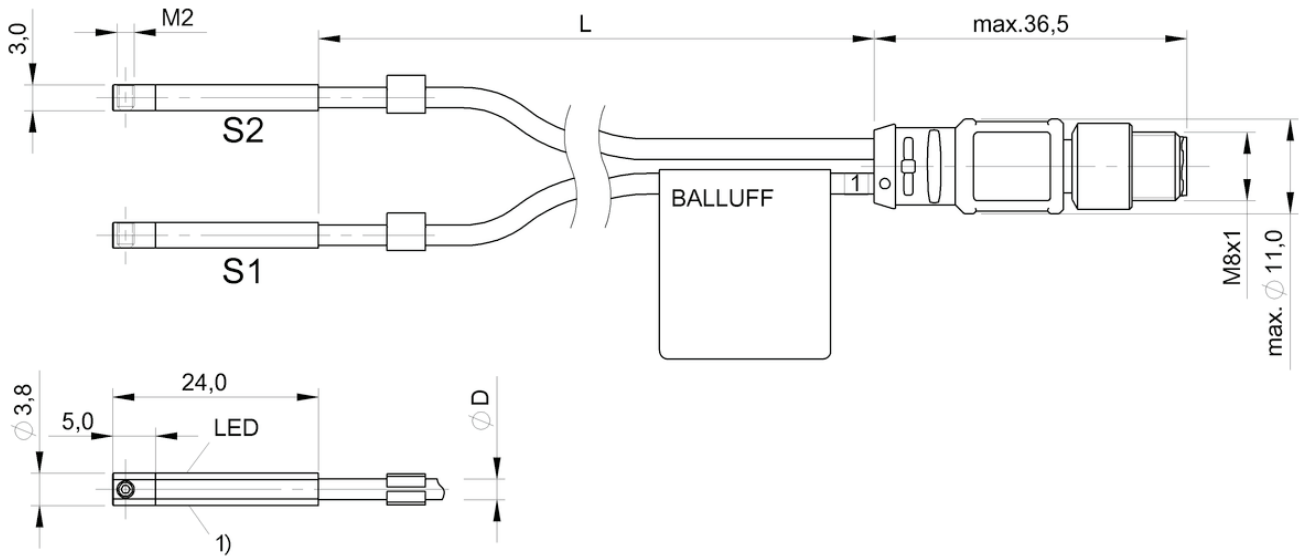
1) Sensing surface

BMF00J1



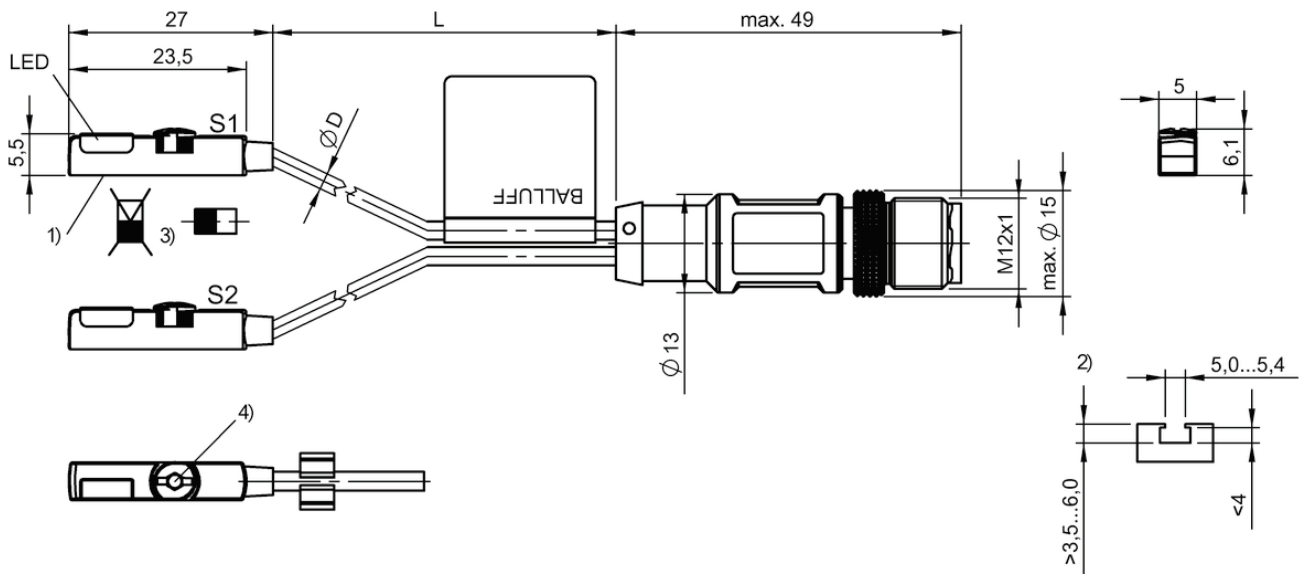
1) Sensing surface

BMF00F9



1) Sensing surface

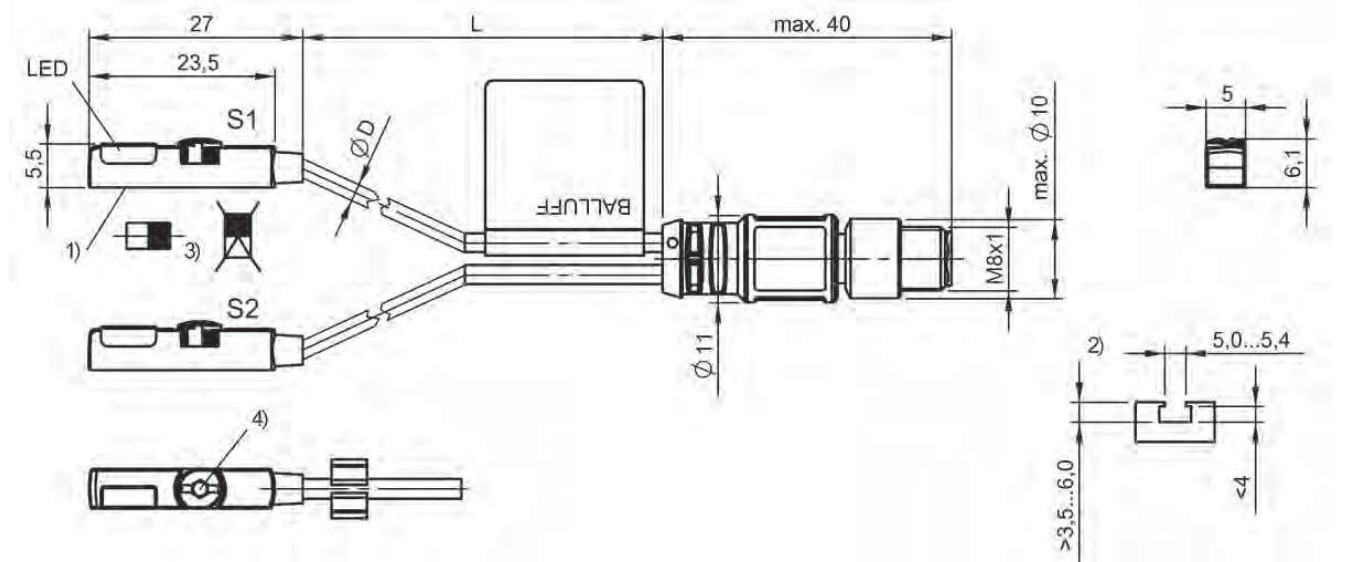
BMF00ET



1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks

BMF00C9

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



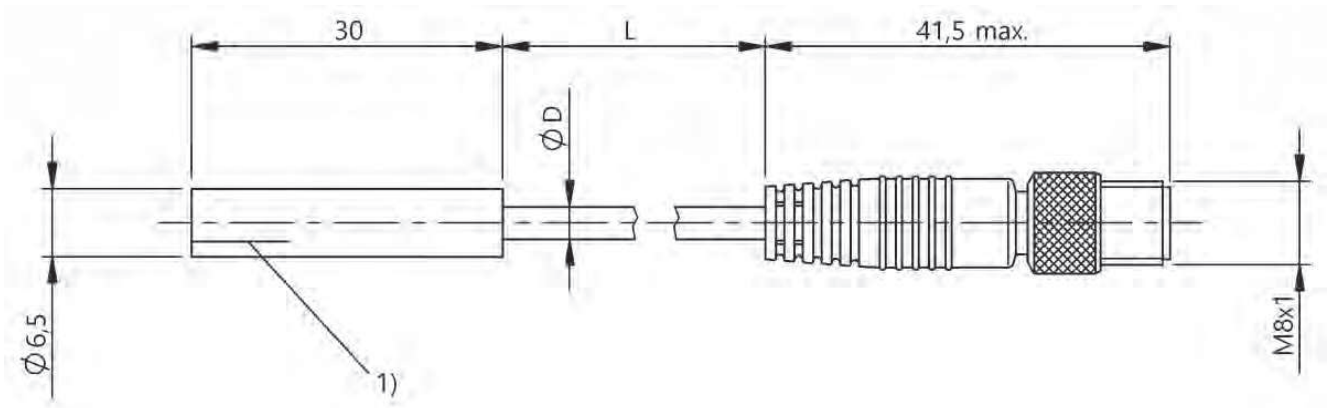
1) Sensing surface, 2) see remarks, 3) see remarks, 4) see remarks

BMF00CA

Dimension	
Connection	
Cable	
Application	
Mounting	
Housing material	
Switching output	
Switching frequency	
Operating voltage U_b	
Ambient temperature	
IP rating	
Approval/Conformity	
Productview	

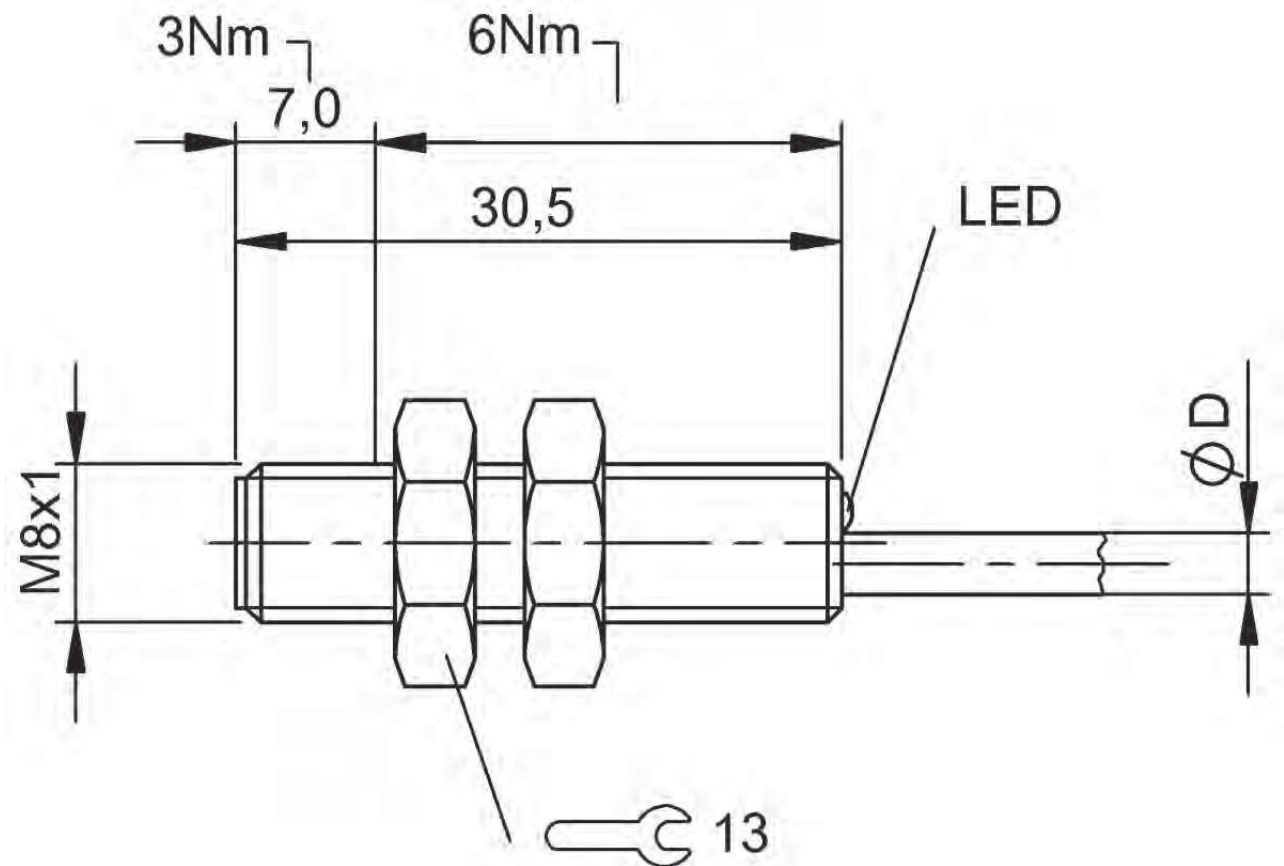


BMF000L BMF 07M-PS-D-2-SA2-S49-00,3	BMF000P BMF 08M-PS-C-2-KPU-02
Ø 6.5 x 30 mm	Ø 8 x 30.5 mm
M8x1-Male, 3-pin	—
PUR, 0.3 m	PUR, 2 m
Flexible mounting, Switching distances > 20 mm possible	Flexible mounting, Switching distances > 20 mm possible
Clamps	Clamps
Brass, nickel plated	Brass, nickel plated
PNP normally open (NO)	PNP normally open (NO)
10000 Hz	10000 Hz
10...30 VDC	10...30 VDC
-25...85 °C	-25...85 °C
IP67	IP67
cULus, CE, WEEE, EAC	cULus, CE, WEEE, EAC
Page 678	Page 678



1) see remarks

BMF000L



BMF000P