

DC 3-/4-wire Inductive Sensors

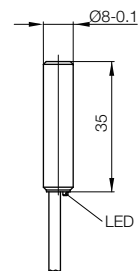
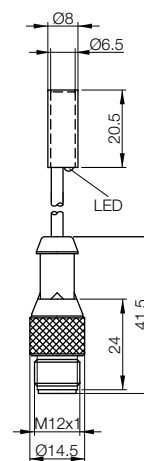
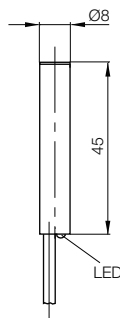
Cylinder designs, Ø 8 mm



Model	Ø 8 mm	Ø 8 mm	Ø 8 mm
Installation type (observe instructions in the Basic Information chapter)	Flush	Flush	Flush
Rated switching distance s_n	1.5 mm	2 mm	2 mm
Assured switching distance s_a	0...1.2 mm	0...1.6 mm	0...1.6 mm
Switching distance marking	■	■■	■■
PNP, NO	Ordering code Part number	BES01NY BES G08EG-PSC15B-BV02	BES0388 BES G08EC-PSC20B-EP01-GS04-516
PNP, NC	Ordering code Part number		BES012N BES G08EE-PSC20B-BV02
NPN, NO	Ordering code Part number		
NPN, NC	Ordering code Part number		
Supply voltage U_s	10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.	2.5 V	2.5 V	2.5 V
Rated insulation voltage U_i (protection class)	250 V AC (□)	75 V DC	250 V AC (□)
Rated operating current I_e	200 mA	200 mA	200 mA
Polarity reversal protected/transposition protected/short-circuit protected	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a	-25...+70 °C	-25...+70 °C	-25...+70 °C
Switching frequency f max.	3 kHz	2 kHz	1.5 kHz
Output function indicator	Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529	IP 68 per BWN Pr. 20	IP 67	IP 68 per BWN Pr. 20
Approvals	CE, cULus	CE	CE, cULus
Special properties			
Material	Housing: Stainless steel Sensing surface: PBT	Housing: Stainless steel Sensing surface: Ceramic	Housing: Stainless steel Sensing surface: PBT
Connection	2 m PVC cable, 3x0.14 mm ²	1 m PUR cable with M12 connector, 4-pin	2 m PVC cable, 3x0.14 mm ²

Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request

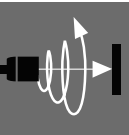


DC 3-/4-wire Inductive Sensors Cylinder designs, M8x1

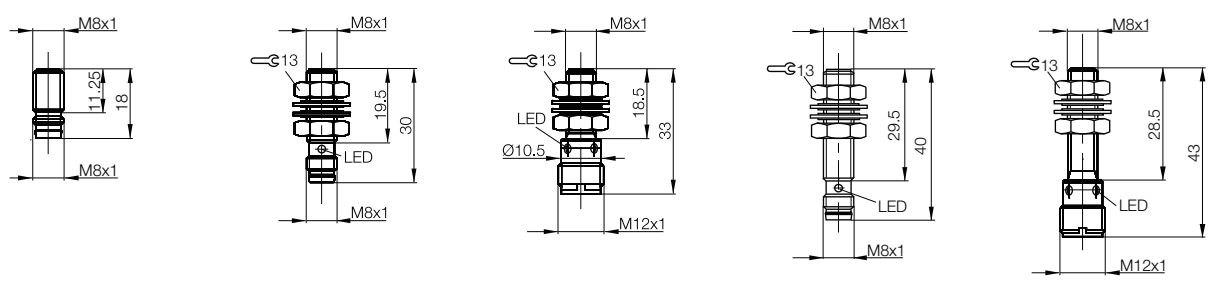


SUPERSHORTIES

M8x1	M8x1	M8x1	M8x1	M8x1
Flush	Flush	Flush	Flush	Flush
1.5 mm	1.5 mm	1.5 mm	1.5 mm	1.5 mm
0...1.2 mm	0...1.2 mm	0...1.2 mm	0...1.2 mm	0...1.2 mm
■	■	■	■	■
BES0277	BES013N	BES013M	BES0147	BES0146
BES M08EA-PSD15B-S49G	BES M08EC-PSC15B-S49G	BES M08EC-PSC15B-S04G	BES M08EE-PSC15B-S49G	BES M08EE-PSC15B-S04G
BES0270	BES013K		BES0143	BES0142
BES M08EA-POD15B-S49G	BES M08EC-POC15B-S49G		BES M08EE-POC15B-S49G	BES M08EE-POC15B-S04G
BES026W	BES013J		BES013Z	BES013Y
BES M08EA-NSD15B-S49G	BES M08EC-NSC15B-S49G		BES M08EE-NSC15B-S49G	BES M08EE-NSC15B-S04G
BES026R			BES013T	BES013R
BES M08EA-NOD15B-S49G			BES M08EE-NOC15B-S49G	BES M08EE-NOC15B-S04G
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
75 V DC	250 V AC (□)	250 V AC (□)	250 V AC (□)	250 V AC (□)
150 mA	200 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
3 kHz	3 kHz	3 kHz	3 kHz	3 kHz
No	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 67	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Short design				
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
PBT	PBT	PBT	PBT	PBT
M8 connector, 3-pin	M8 connector, 3-pin	M12 connector, 4-pin	M8 connector, 3-pin	M12 connector, 4-pin



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DC 3-/4-wire Inductive Sensors

Cylinder designs, M8x1

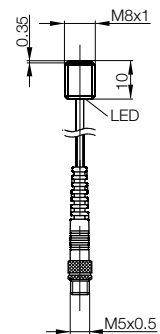
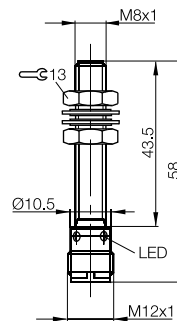
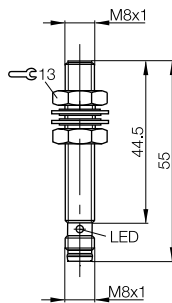


SUPERSHORTIES

Model		M8x1	M8x1	M8x1
Installation type (observe instructions in the Basic Information chapter)		Flush	Flush	Flush
Rated switching distance s_n		1.5 mm	1.5 mm	1.5 mm
Assured switching distance s_a		0...1.2 mm	0...1.2 mm	0...1.2 mm
Switching distance marking		■	■	■
PNP, NO	Ordering code	BES01AW	BES01PF	BES0272
	Part number	BES 516-324-S49-C	BES M08EH-PSC15B-S04G	BES M08EA-PSC15B-EP00,3-GS26
PNP, NC	Ordering code	BES01LR	BES01PE	
	Part number	BES 516-377-S49-C	BES M08EH-POC15B-S04G	
NPN, NO	Ordering code	BES01F5	BES01PC	
	Part number	BES 516-343-S49-C	BES M08EH-NSC15B-S04G	
NPN, NC	Ordering code	BES01LZ	BES01PA	
	Part number	BES 516-378-S49-C	BES M08EH-NOC15B-S04G	
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.		2.5 V	2.5 V	2.5 V
Rated insulation voltage U_i (protection class)		250 V AC (□)	250 V AC (□)	75 V DC
Rated operating current I_e		200 mA	200 mA	150 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C
Switching frequency f max.		3 kHz	3 kHz	3 kHz
Output function indicator		Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 67
Approvals		CE, cULus	CE, cULus	CE, cULus
Special properties				Short design
Material	Housing	Stainless steel	Stainless steel	Stainless steel
	Sensing surface	PBT	PBT	PBT
Connection		M8 connector, 3-pin	M12 connector, 4-pin	0.3 m PUR cable with M5 connector, 4-pin

Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request

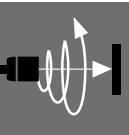


DC 3-/4-wire Inductive Sensors Cylinder designs, M8x1

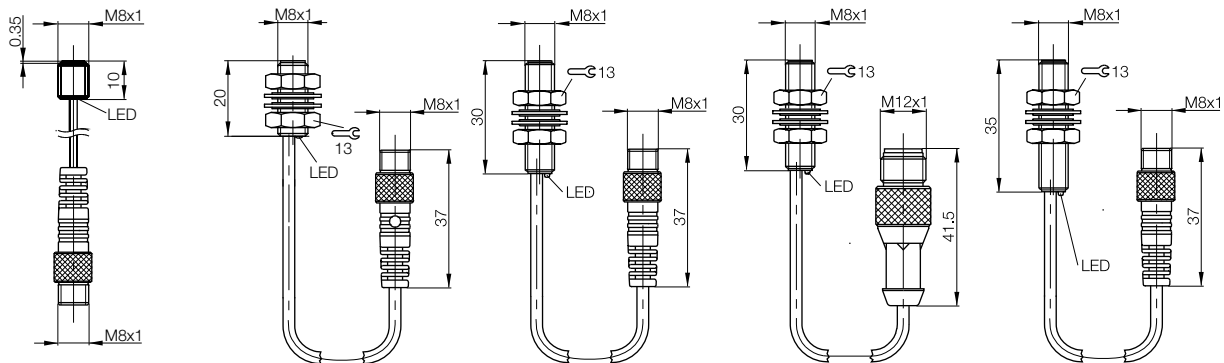


SUPERSHORTIES

M8x1	M8x1	M8x1	M8x1	M8x1
Flush	Flush	Flush	Flush	Flush
1.5 mm	1.5 mm	1.5 mm	1.5 mm	1.5 mm
0...1.2 mm	0...1.2 mm	0...1.2 mm	0...1.2 mm	0...1.2 mm
■	■	■	■	■
BES0273	BES034Y	BES00NK	BES00N9	BES00MU
BES M08EA-PSC15B-EP00,3-GS49	BES 516-324-SA44-C-S49-00,3	BES 516-324-E4-C-S49-00,3	BES 516-324-E4-C-S4-00,3	BES 516-324-E3-C-S49-00,3
BES026T				
BES M08EA-NSC15B-EP00,3-GS49				
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
75 V DC	75 V DC	250 V AC (□)	250 V AC (□)	250 V AC (□)
150 mA	200 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
3 kHz	4 kHz	3 kHz	3 kHz	3 kHz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 67	IP 67	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE, cULus	CE	CE, cULus	CE, cULus	CE, cULus
Short design				
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
PBT	PBT	PBT	PBT	PBT
0.3 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M12 connector, 4-pin	0.3 m PUR cable with M8 connector, 3-pin



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Cylinder designs, M8x1

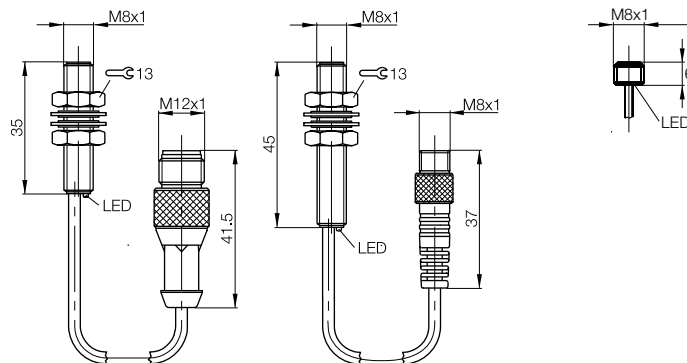


SUPERSHORTIES

Model		M8x1	M8x1	M8x1
Installation type (observe instructions in the Basic Information chapter)		Flush	Flush	Flush
Rated switching distance s_n		1.5 mm	1.5 mm	1.5 mm
Assured switching distance s_a		0...1.2 mm	0...1.2 mm	0...1.2 mm
Switching distance marking		■	■	■
PNP, NO	Ordering code	BES00MT	BES01AL	BES026M
	Part number	BES 516-324-E3-C-S4-00,3	BES 516-324-EO-C-S49-00,3	BES M08E60-PSC15B-EP02
PNP, NC	Ordering code	BES010N	BES01LN	BES026K
	Part number	BES 516-377-E3-C-S4-PU-00,3	BES 516-377-EO-C-S49-00,3	BES M08E60-POC15B-EP02
NPN, NO	Ordering code		BES01F4	BES026J
	Part number		BES 516-343-EO-C-S49-00,3	BES M08E60-NSC15B-EP02
NPN, NC	Ordering code			BES026H
	Part number			BES M08E60-NOC15B-EP02
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.		2.5 V	2.5 V	2.5 V
Rated insulation voltage U_i (protection class)		250 V AC (II)	250 V AC (II)	75 V DC
Rated operating current I_e		200 mA	200 mA	150 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C
Switching frequency f max.		3 kHz	3 kHz	3 kHz
Output function indicator		Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 67
Approvals		CE, cULus	CE, cULus	CE, cULus
Special properties				Short design
Material	Housing	Stainless steel	Stainless steel	Stainless steel
	Sensing surface	PBT	PBT	PBT
Connection		0.3 m PUR cable with M12 connector, 4-pin	0.3 m PUR cable with M8 connector, 3-pin	2 m PUR cable, 3x0.073 mm ²

Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request

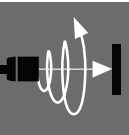


DC 3-/4-wire Inductive Sensors Cylinder designs, M8x1

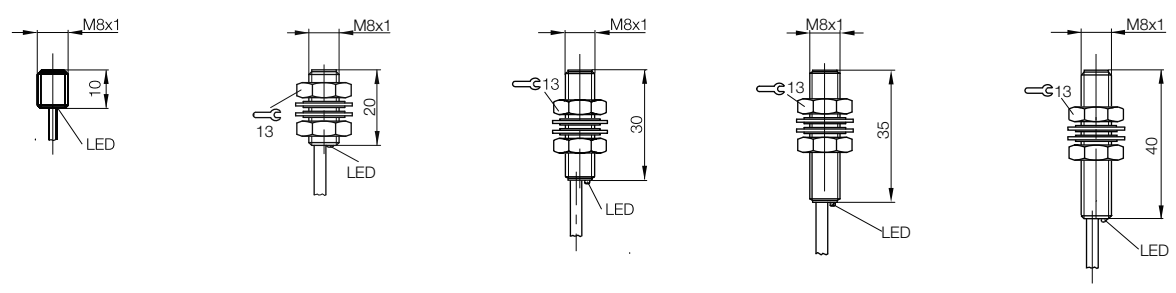


SUPERSHORTIES

M8x1	M8x1	M8x1	M8x1	M8x1
Flush	Flush	Flush	Flush	Flush
1.5 mm	1.5 mm	1.5 mm	1.5 mm	1.5 mm
0...1.2 mm	0...1.2 mm	0...1.2 mm	0...1.2 mm	0...1.2 mm
■	■	■	■	■
BES0275	BES034P	BES00MY		BES014K
BES M08EA-PSC15B-EP02	BES 516-324-SA44-C-02	BES 516-324-E4-C-02		BES M08EF-PSC15B-BP02
BES026Y		BES010T	BES010K	BES014H
BES M08EA-POC15B-EP02		BES 516-377-E4-C-02	BES 516-377-E3-C-PU-02	BES M08EF-POC15B-BP02
BES026U		BES00TL		BES03J6
BES M08EA-NSC15B-EP02		BES 516-343-E4-C-02		BES M08EF-NSC15B-BP02
BES026N				BES014C
BES M08EA-NOC15B-EP02				BES M08EF-NOC15B-BP02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
75 V DC	75 V DC	250 V AC (□)	250 V AC (□)	250 V AC (□)
150 mA	200 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
3 kHz	4 kHz	3 kHz	3 kHz	3 kHz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 67	IP 67	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE, cULus	CE	CE, cULus	CE, cULus	CE, cULus
Short design				
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
PBT	PBT	PBT	PBT	PBT
2 m PUR cable, 3x0.073 mm ²	2 m PVC cable, 3x0.14 mm ²	2 m PVC cable, 3x0.14 mm ²	2 m PUR cable, 3x0.14 mm ²	2 m PUR cable, 3x0.14 mm ²



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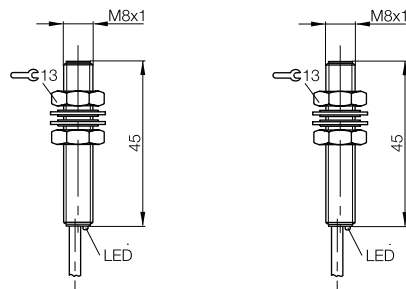
Cylinder designs, M8x1



Model		M8x1	M8x1		
Installation type (observe instructions in the Basic Information chapter)		Flush	Flush		
Rated switching distance s_n		1.5 mm	1.5 mm		
Assured switching distance s_a		0...1.2 mm	0...1.2 mm		
Switching distance marking		■	■		
PNP, NO	Ordering code	BES01A7	BES01AC		
	Part number	BES 516-324-EO-C-02	BES 516-324-EO-C-PU-02		
PNP, NC	Ordering code	BES01LC	BES01LH		
	Part number	BES 516-377-EO-C-02	BES 516-377-EO-C-PU-02		
NPN, NO	Ordering code	BES01EY	BES01F1		
	Part number	BES 516-343-EO-C-02	BES 516-343-EO-C-PU-02		
NPN, NC	Ordering code	BES01LT			
	Part number	BES 516-378-EO-C-02			
Supply voltage U_s		10...30 V DC	10...30 V DC		
Voltage drop U_d at I_e max.		2.5 V	2.5 V		
Rated insulation voltage U_i (protection class)		250 V AC (□)	250 V AC (□)		
Rated operating current I_e		200 mA	200 mA		
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes		
Ambient temperature T_a		-25...+70 °C	-25...+70 °C		
Switching frequency f max.		3 kHz	3 kHz		
Output function indicator		Yellow LED	Yellow LED		
Degree of protection as per IEC 60529		IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20		
Approvals		CE, cULus	CE, cULus		
Special properties					
Material	Housing	Stainless steel	Stainless steel		
	Sensing surface	PBT	PBT		
Connection		2 m PVC cable, 3x0.14 mm ²	2 m PUR cable, 3x0.14 mm ²		

Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request



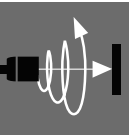
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Cylinder designs, M8x1

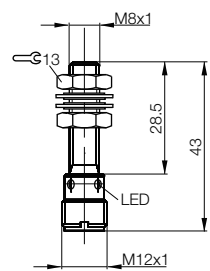
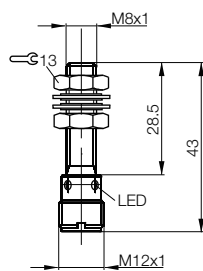
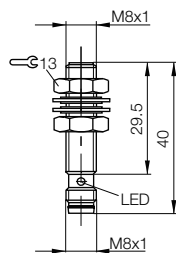
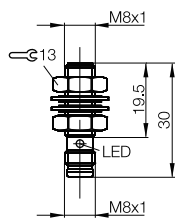
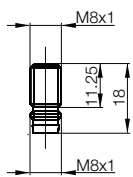


SUPERSHORTIES

M8x1	M8x1	M8x1	M8x1	M8x1
Flush	Flush	Flush	Flush	Flush
2 mm	2 mm	2 mm	2 mm	2 mm
0...1.6 mm	0...1.6 mm	0...1.6 mm	0...1.6 mm	0...1.4 mm
■ ■	■ ■	■ ■	■ ■	■ ■
BES0278	BES013P	BES014A	BES0148	BES0149
BES M08EA-PSD20B-S49G	BES M08EC-PSC20B-S49G	BES M08EE-PSC20B-S49G	BES M08EE-PSC20B-S04G	BES M08EE-PSC20B-S04G-101
	BES013L	BES0145	BES0144	
	BES M08EC-POC20B-S49G	BES M08EE-POC20B-S49G	BES M08EE-POC20B-S04G	
BES01P1		BES0141	BES0140	
BES M08EA-NSD20B-S49G		BES M08EE-NSC20B-S49G	BES M08EE-NSC20B-S04G	
		BES013W	BES013U	
		BES M08EE-NOC20B-S49G	BES M08EE-NOC20B-S04G	
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
75 V DC	250 V AC (□)	250 V AC (□)	250 V AC (□)	250 V AC (□)
150 mA	200 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
3 kHz	1.5 kHz	1.5 kHz	1.5 kHz	1.5 kHz
No	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 67	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Short design				
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
PBT	PBT	PBT	PBT	With ceramic coating
M8 connector, 3-pin	M8 connector, 3-pin	M8 connector, 3-pin	M12 connector, 4-pin	M12 connector, 4-pin



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DC 3-/4-wire Inductive Sensors

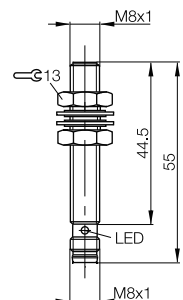
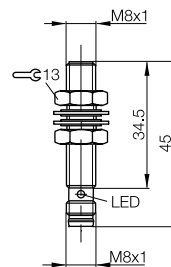
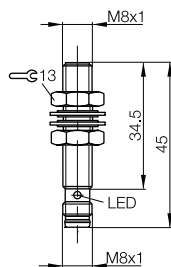
Cylinder designs, M8x1



Model		M8x1	M8x1	M8x1
Installation type (observe instructions in the Basic Information chapter)		Flush	Flush	Flush
Rated switching distance s_n		2 mm	2 mm	2 mm
Assured switching distance s_a		0...1.6 mm	0...1.4 mm	0...1.6 mm
Switching distance marking		■ ■	■ ■	■ ■
PNP, NO	Ordering code	BES00P7	BES02P0	BES01AU
	Part number	BES 516-324-G-E5-C-S49	BES 516-324-SA96-G-E5-C-S49	BES 516-324-G-S49-C
PNP, NC	Ordering code	BES0113		BES01LP
	Part number	BES 516-377-G-E5-C-S49		BES 516-377-G-S49-C
NPN, NO	Ordering code	BES00TY	BES02P1	
	Part number	BES 516-343-G-E5-C-S49	BES 516-343-SA96-G-E5-C-S49	
NPN, NC	Ordering code	BES0118		
	Part number	BES 516-378-G-E5-C-S49		
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.		2.5 V	2.5 V	2.5 V
Rated insulation voltage U_i (protection class)		250 V AC (□)	250 V AC (□)	250 V AC (□)
Rated operating current I_e		200 mA	200 mA	200 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C
Switching frequency f max.		1.5 kHz	1.5 kHz	1.5 kHz
Output function indicator		Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
Approvals		CE, cULus	CE, cULus	CE, cULus
Special properties				
Material	Housing	Stainless steel	Stainless steel	Stainless steel
	Sensing surface	PBT	With ceramic coating	PBT
Connection		M8 connector, 3-pin	M8 connector, 3-pin	M8 connector, 3-pin

Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request

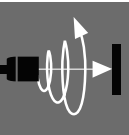


DC 3-/4-wire Inductive Sensors

Cylinder designs, M8x1

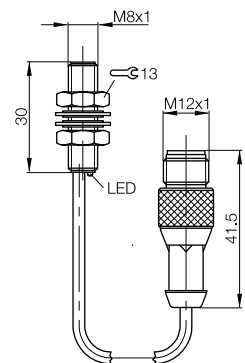
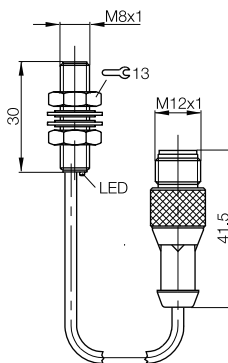
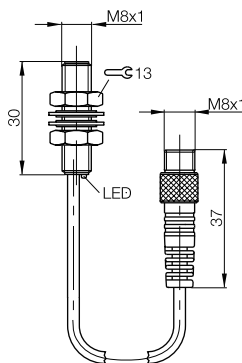
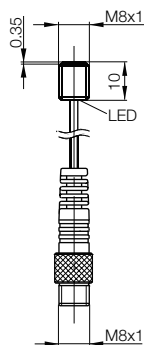
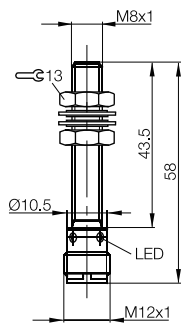


SUPERSHORTIES



Inductive Sensors
Global DC 3-wire
DC 3-/4-wire
Cylinder Designs
Block Designs
DC 2-wire
AC/DC 2-wire
AC 2-wire
Special Properties
Analog Distance measurement
Accessories

M8x1	M8x1	M8x1	M8x1	M8x1
Flush	Flush	Flush	Flush	Flush
2 mm	2 mm	2 mm	2 mm	2 mm
0...1.6 mm	0...1.6 mm	0...1.6 mm	0...1.6 mm	0...1.4 mm
■ ■	■ ■	■ ■	■ ■	■ ■
BES01PH	BES0276	BES00P4	BES00P2	BES02P5
BES M08EH-PSC20B-S04G	BES M08EA-PSC20B-EP00,3-GS49	BES 516-324-G-E4-C-S49-00,3	BES 516-324-G-E4-C-S4-00,3	BES 516-324-SA96-G-E4-C-S4-00,3
		BES0112		
		BES 516-377-G-E4-C-S49-00,3		
BES0118				
BES 516-378-G-E5-C-S49				
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
250 V AC (□)	75 V DC	250 V AC (□)	250 V AC (□)	250 V AC (□)
200 mA	150 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
1.5 kHz	3 kHz	1.5 kHz	1.5 kHz	1.5 kHz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 68 per BWN Pr. 20	IP 67	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
	Short design			
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
PBT	PBT	PBT	PBT	With ceramic coating
M12 connector, 4-pin	0.3 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M12 connector, 4-pin	0.3 m PUR cable with M12 connector, 4-pin



DC 3-/4-wire Inductive Sensors

Cylinder designs, M8x1

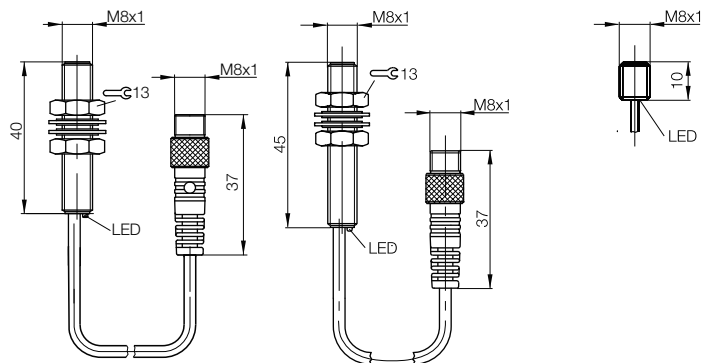


SUPERSHORTIES

Model		M8x1	M8x1	M8x1
Installation type (observe instructions in the Basic Information chapter)		Flush	Flush	Flush
Rated switching distance s_n		2 mm	2 mm	2 mm
Assured switching distance s_a		0...1.6 mm	0...1.6 mm	0...1.6 mm
Switching distance marking		■ ■	■ ■	■ ■
PNP, NO	Ordering code	BES03TU	BES01AT	
	Part number	BES M08EF-PSC20B-BP00,3-GS49	BES 516-324-G-EO-C-S49-01	
PNP, NC	Ordering code			BES026Z
	Part number			BES M08EA-POC20B-EP02
NPN, NC	Ordering code			BES026P
	Part number			BES M08EA-NOC20B-EP02
NPN, NC	Ordering code			
	Part number			
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.		2.5 V	2.5 V	2.5 V
Rated insulation voltage U_i (protection class)		250 V AC (□)	250 V AC (□)	75 V DC
Rated operating current I_e		200 mA	200 mA	150 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C
Switching frequency f max.		1.5 kHz	1.5 kHz	3 kHz
Output function indicator		Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 67
Approvals		CE, cULus	CE, cULus	CE, cULus
Special properties				Short design
Material	Housing	Stainless steel	Stainless steel	Stainless steel
	Sensing surface	PBT	PBT	PBT
Connection		0.3 m PUR cable with M8 connector, 3-pin	1 m PUR cable with M8 connector, 3-pin	2 m PUR cable, 3x0.073 mm ²

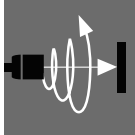
Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request



DC 3-/4-wire Inductive Sensors

Cylinder designs, M8x1



Inductive Sensors

Global DC 3-wire

DC 3-/4-wire

Cylinder Designs
Block Designs

DC 2-wire

AC/DC 2-wire

AC 2-wire

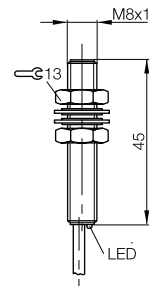
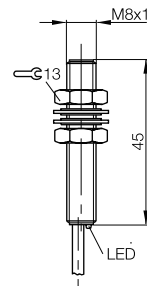
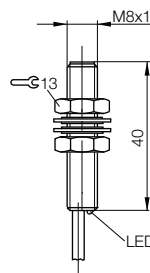
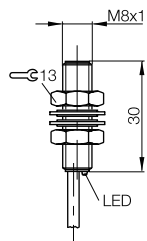
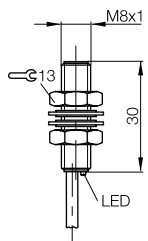
Special Properties

Analog Distance measurement

Accessories



M8x1	M8x1	M8x1	M8x1	M8x1
Flush	Flush	Flush	Flush	Flush
2 mm	2 mm	2 mm	2 mm	2 mm
0...1.6 mm	0...1.6 mm	0...1.6 mm	0...1.6 mm	0...1.6 mm
■ ■	■ ■	■ ■	■ ■	■ ■
BES00NR	BES00NY	BES014L	BES01AM	BES01AN
BES 516-324-G-E4-C-02	BES 516-324-G-E4-C-PU-02	BES M08EF-PSC20B-BP02	BES 516-324-G-EO-C-02	BES 516-324-G-EO-C-PU-02
BES010Y	BES010Z	BES014J		
BES 516-377-G-E4-C-02	BES 516-377-G-E4-C-PU-02	BES M08EF-POC20B-BP02		
BES00TT		BES014F		
BES 516-343-G-E4-C-02		BES M08EF-NSC20B-BP02		
BES0116		BES014E		
BES 516-378-G-E4-C-02		BES M08EF-NOC20B-BP02		
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
250 V AC (□)	250 V AC (□)	250 V AC (□)	250 V AC (□)	250 V AC (□)
200 mA	200 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
1.5 kHz	1.5 kHz	1.5 kHz	1.5 kHz	1.5 kHz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
PBT	PBT	PBT	PBT	PBT
2 m PVC cable, 3x0.14 mm ²	2 m PUR cable, 3x0.14 mm ²	2 m PUR cable, 3x0.14 mm ²	2 m PVC cable, 3x0.14 mm ²	2 m PUR cable, 3x0.14 mm ²



DC 3-/4-wire Inductive Sensors

Cylinder designs, M8x1



TRIPLEPROX



TRIPLEPROX

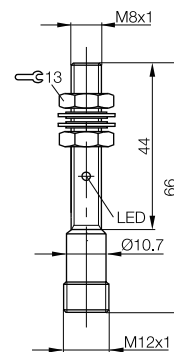
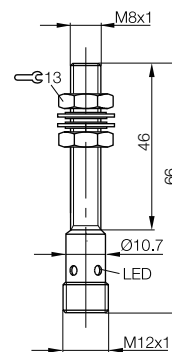
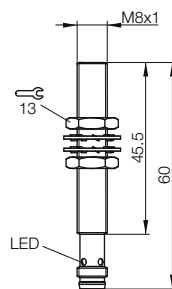


TRIPLEPROX

Model		M8x1	M8x1	M8x1
Installation type (observe instructions in the Basic Information chapter)		Quasi-flush	Quasi-flush	Quasi-flush
Rated switching distance s_n		3 mm	3 mm	3 mm
Assured switching distance s_a		0...2.4 mm	0...2.4 mm	0...2.2 mm
Switching distance marking		■■■	■■■	■■■
PNP, NO	Ordering code	BES02WA	BES02W9	BES02PW
	Part number	BES M08MH1-PSC30B-S49G	BES M08MH1-PSC30B-S04G	BES M08MH1-PSC30B-S04G-101
PNP, NC	Ordering code			
	Part number			
NPN, NO	Ordering code	BES02W8	BES02W7	
	Part number	BES M08MH1-NSC30B-S49G	BES M08MH1-NSC30B-S04G	
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.		2 V	2 V	2 V
Rated insulation voltage U_i (protection class)		75 V DC	75 V DC	75 V DC
Rated operating current I_e		200 mA	200 mA	200 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C
Switching frequency f max.		1 kHz	1 kHz	1 kHz
Output function indicator		Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 67	IP 67	IP 67
Approvals		CE	CE	CE
Special properties		Large switching distance	Large switching distance	Large switching distance
Material	Housing	Brass-coated	Brass-coated	Brass-coated
	Sensing surface	PBT	PBT	With ceramic coating
Connection		M8 connector, 3-pin	M12 connector, 4-pin	M12 connector, 4-pin

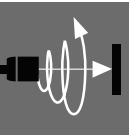
Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request

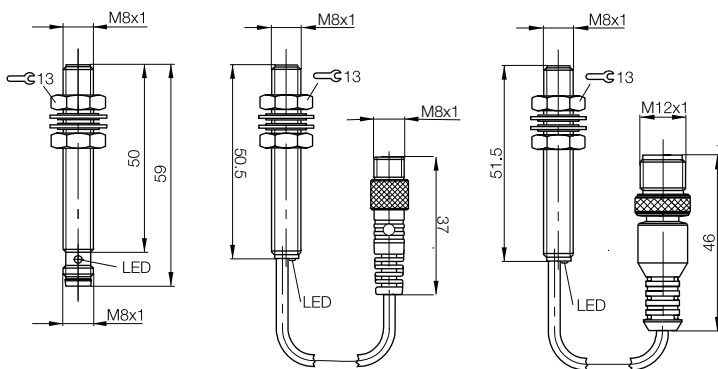




HYPERPROX		HYPERPROX		HYPERPROX	
M8x1	M8x1	M8x1			
Quasi-flush	Quasi-flush	Quasi-flush			
4 mm	4 mm	4 mm			
0...2.9 mm	0...2.9 mm	0...2.9 mm			
■■■■	■■■■	■■■■			
BES01ZW	BES003R	BES01ZU			
BES M08MI-PSC40B-S49G	BES M08MI-PSC40B-BP00,3-GS49	BES M08MI-PSC40B-BP00,2-GS04			
BES01ZT		BES01ZR			
BES M08MI-NSC40B-S49G		BES M08MI-NSC40B-BP00,2-GS04			
10...30 V DC	10...30 V DC	10...30 V DC			
2.8 V	2.8 V	2.8 V			
75 V DC	75 V DC	75 V DC			
200 mA	200 mA	200 mA			
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes			
0...+60 °C	0...+60 °C	0...+60 °C			
800 Hz	800 Hz	800 Hz			
Yellow LED	Yellow LED	Yellow LED			
IP 67	IP 67	IP 67			
CE, cULus	CE, cULus	CE, cULus			
Large switching distance	Large switching distance	Large switching distance			
Brass-coated	Brass-coated	Brass-coated			
PBT	PBT	PBT			
M8 connector, 3-pin	0.3 m PUR cable with M8 connector, 3-pin	0.2 m PUR cable with M12 connector, 4-pin			



Inductive Sensors
Global DC 3-wire
DC 3-/4-wire
Cylinder Designs
Block Designs
DC 2-wire
AC/DC 2-wire
AC 2-wire
Special Properties
Analog Distance measurement
Accessories



DC 3-/4-wire Inductive Sensors

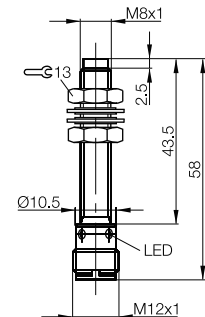
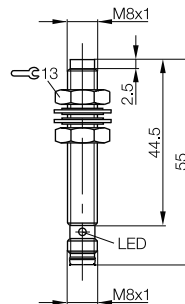
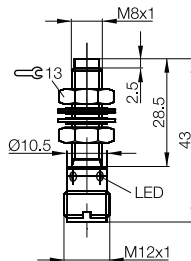
Cylinder designs, M8x1



Model		M8x1	M8x1	M8x1
Installation type (observe instructions in the Basic Information chapter)		Not flush	Not flush	Not flush
Rated switching distance s_n		2.5 mm	2.5 mm	2.5 mm
Assured switching distance s_a		0...2 mm	0...2 mm	0...2 mm
Switching distance marking		■	■	■
PNP, NO	Ordering code	BES01P3	BES01M6	BES01P8
	Part number	BES M08ED-PSC25F-S04G	BES 516-383-S49-C	BES M08EG-PSC25F-S04G
PNP, NC	Ordering code			BES01P6
	Part number			BES M08EG-POC25F-S04G
NPN, NO	Ordering code	BES01P2		BES01P5
	Part number	BES M08ED-NSC25F-S04G		BES M08EG-NSC25F-S04G
NPN, NC	Ordering code			
	Part number			
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.		2.5 V	2.5 V	2.5 V
Rated insulation voltage U_i (protection class)		250 V AC (□)	250 V AC (□)	250 V AC (□)
Rated operating current I_e		200 mA	200 mA	200 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C
Switching frequency f max.		2 kHz	2 kHz	2 kHz
Output function indicator		Yellow LED	Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
Approvals		CE, cULus	CE, cULus	CE, cULus
Special properties				
Material	Housing	Stainless steel	Stainless steel	Stainless steel
	Sensing surface	PBT	PBT	PBT
Connection		M12 connector, 4-pin	M8 connector, 3-pin	M12 connector, 4-pin

Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

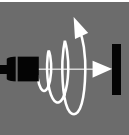
Additional cable lengths and PUR cable jacket material available on request



DC 3-/4-wire Inductive Sensors Cylinder designs, M8x1



M8x1 Not flush 2.5 mm 0...2 mm ■	M8x1 Not flush 2.5 mm 0...2 mm ■	M8x1 Not flush 2.5 mm 0...2 mm ■ BES011A BES 516-383-E4-C-02	M8x1 Not flush 2.5 mm 0...2 mm ■ BES01M0 BES 516-383-EO-C-02	
BES011U BES 516-384-E4-C-S49-00.2	BES01MA BES 516-384-EO-C-S49-00.2	BES011M BES 516-384-E4-C-02	BES01M7 BES 516-384-EO-C-02	
10...30 V DC 2.5 V 250 V AC (□) 200 mA Yes/Yes/Yes -25...+70 °C 2 kHz Yellow LED IP 67 CE, cULus	10...30 V DC 2.5 V 250 V AC (□) 200 mA Yes/Yes/Yes -25...+70 °C 2 kHz Yellow LED IP 67 CE, cULus	10...30 V DC 2.5 V 250 V AC (□) 200 mA Yes/Yes/Yes -25...+70 °C 2 kHz Yellow LED IP 68 per BWN Pr. 20 CE, cULus	10...30 V DC 2.5 V 250 V AC (□) 200 mA Yes/Yes/Yes -25...+70 °C 2 kHz Yellow LED IP 68 per BWN Pr. 20 CE, cULus	
Stainless steel PBT	Stainless steel PBT	Stainless steel PBT	Stainless steel PBT	
0.2 m PVC cable with M8 connector, 3-pin	0.2 m PVC cable with M8 connector, 3-pin	2 m PVC cable, 3x0.14 mm ²	2 m PVC cable, 3x0.14 mm ²	



Inductive Sensors

Global DC 3-wire

DC 3-/4-wire

Cylinder Designs

Block Designs

DC 2-wire

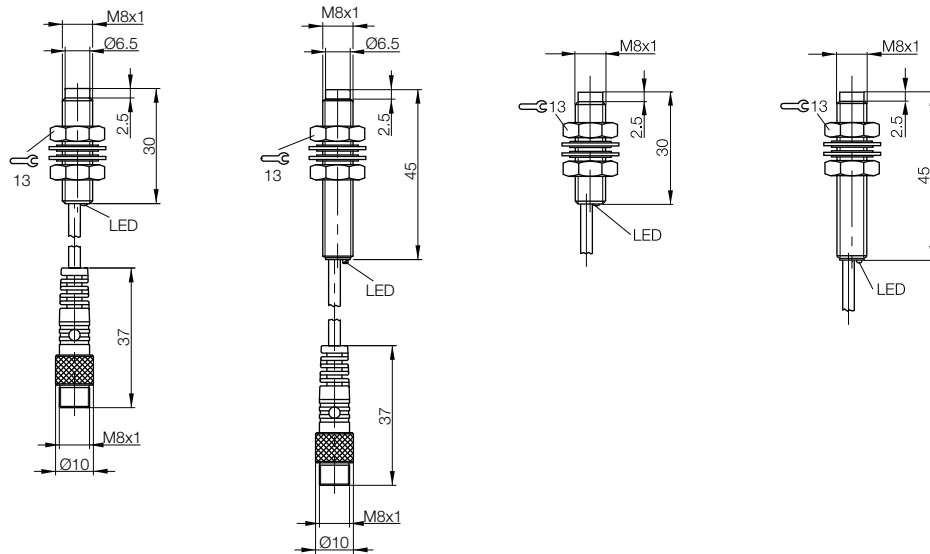
AC/DC 2-wire

AC 2-wire

Special Properties

Analog Distance measurement

Accessories



DC 3-/4-wire Inductive Sensors

Cylinder designs, M8x1

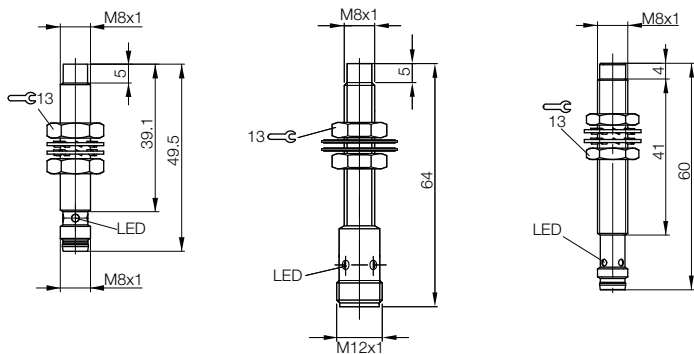


TRIPLEPROX

Model	M8x1	M8x1	M8x1	
Installation type (observe instructions in the Basic Information chapter)	Not flush	Not flush	Not flush	
Rated switching distance s_n	4 mm	4 mm	6 mm	
Assured switching distance s_a	0...3.2 mm	0...3.2 mm	0...4.8 mm	
Switching distance marking	■ ■	■ ■	■ ■ ■	
PNP, NO	Ordering code	BES014M	BES01P9	BES02W4
	Part number	BES M08EF-PSC40F-S49G	BES M08EG1-PSC40F-S04G	BES M08MG1-PSC60F-S49G
PNP, NC	Ordering code			BES02W2
	Part number			BES M08MG1-POC60F-S49G
NPN, NO	Ordering code			
	Part number			
NPN, NC	Ordering code			BES02UZ
	Part number			BES M08MG1-NOC60F-S49G
Supply voltage U_s	10...30 V DC	10...30 V DC	10...30 V DC	
Voltage drop U_d at I_e max.	2.5 V	2.5 V	2 V	
Rated insulation voltage U_i (protection class)	250 V AC (□)	250 V AC (□)	75 V DC	
Rated operating current I_e	200 mA	200 mA	200 mA	
Polarity reversal protected/transposition protected/short-circuit protected	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a	-25...+70 °C	-25...+70 °C	-25...+70 °C	
Switching frequency f max.	1.5 kHz	5 kHz	500 Hz	
Output function indicator	Yellow LED	Yellow LED	Yellow LED	
Degree of protection as per IEC 60529	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 67	
Approvals	CE, cULus	CE, cULus	CE	
Special properties			Large switching distance	
Material	Housing	Stainless steel	Stainless steel	Brass-coated
	Sensing surface	PBT	PBT	PBT
Connection	M8 connector, 3-pin	M12 connector, 4-pin	M8 connector, 3-pin	

Wiring diagrams, see page 958.
The meaning of switching distance markings can be found on page 962.

Additional cable lengths and PUR cable jacket material available on request



DC 3-/4-wire Inductive Sensors

Cylinder designs, M8x1

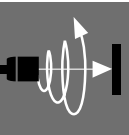


TRIPLEPROX



SUPERSHORTIES

SUPERSHORTIES



Inductive Sensors

Global DC 3-wire

DC 3-/4-wire

Cylinder Designs

Block Designs

DC 2-wire

AC/DC 2-wire

AC 2-wire

Special Properties

Analog Distance measurement

Accessories

M8x1		Ø11x12 mm		Ø11x17 mm	
Not flush		Flush		Not flush	
6 mm		4 mm		6 mm	
0...4.8 mm		0...3.2 mm		0...4.8 mm	
■■■		■■		■■	
BES02W3		BES047J		BES047R	
BES M08MG1-PSC60F-S04G		BES G11EA-PSC40B-EP00,3-GS04		BES G11EA-PSC60F-EP00,3-GS04	
BES02W0					
BES M08MG1-NSC60F-S04G					
10...30 V DC		10...30 V DC		10...30 V DC	
2 V		2.5 V		2.5 V	
75 V DC		75 V AC (□)		75 V AC (□)	
200 mA		100 mA		100 mA	
Yes/Yes/Yes		Yes/Yes/Yes		Yes/Yes/Yes	
-25...+70 °C		-40...+85 °C		-40...+85 °C	
500 Hz		2 kHz		2 kHz	
Yellow LED		Yellow LED		Yellow LED	
IP 67		IP 67		IP 67	
CE		CE, cULus		CE, cULus	
Large switching distance		Short design		Short design	
Brass-coated		Stainless steel		Stainless steel	
PBT		LCP		LCP	
M12 connector, 4-pin		M12 connector, 4-pin		M12 connector, 4-pin	

