

# DC 3-/4-wire Inductive Sensors

## Cylinder design, Ø 3 mm, Ø 4 mm

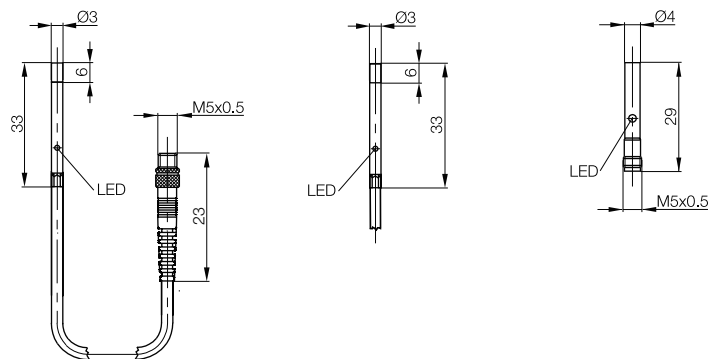


TRIPLEPROX

Model	Ø 3 mm	Ø 3 mm	Ø 4 mm
Installation type (observe instructions in the Basic Information chapter)	Not flush	Not flush	Flush
Rated switching distance $s_n$	<b>3 mm</b>	<b>3 mm</b>	<b>0.8 mm</b>
Assured switching distance $s_a$	0...2.3 mm	0...2.3 mm	0...0.65 mm
Switching distance marking	■ ■	■ ■ ■	■
PNP, NO	<b>Ordering code</b> Part number	<b>BES00MH</b> BES 516-3048-G-E4-C-S26-00,3	<b>BES00ME</b> BES 516-3048-G-E4-C-PU-02
PNP, NC	<b>Ordering code</b> Part number	<b>BES00MJ</b> BES 516-3049-G-E4-C-PU-02	<b>BES0122</b> BES G04EC-PSC08B-S26G
NPN, NO	<b>Ordering code</b> Part number		<b>BES0120</b> BES G04EC-POC08B-S26G
NPN, NC	<b>Ordering code</b> Part number		<b>BES011Y</b> BES G04EC-NSC08B-S26G
			<b>BES011W</b> BES G04EC-NOC08B-S26G
Supply voltage $U_s$	21.6...26.4 V DC	21.6...26.4 V DC	10...30 V DC
Voltage drop $U_d$ at $I_e$ max.	2.5 V	2.5 V	3 V
Rated insulation voltage $U_i$	75 V DC	75 V DC	75 V DC
Rated operating current $I_e$	50 mA	50 mA	100 mA
Polarity reversal protected/transposition protected/short-circuit protected	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature $T_a$	0...+70 °C	0...+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 67	IP 67	IP 67
Approvals	CE, cULus	CE, cULus	CE, cULus
Special properties	<b>Narrow design</b>	<b>Narrow design, large switching distance</b>	<b>Narrow design</b>
Material	Housing: Stainless steel Sensing surface: PET-C	Housing: Stainless steel Sensing surface: PET-C	Housing: Stainless steel Sensing surface: PBT
Connection	0.3 m PUR cable with M5 connector, 4-pin	2 m PUR cable, 3x0.1 mm <sup>2</sup>	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**

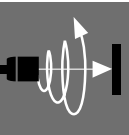


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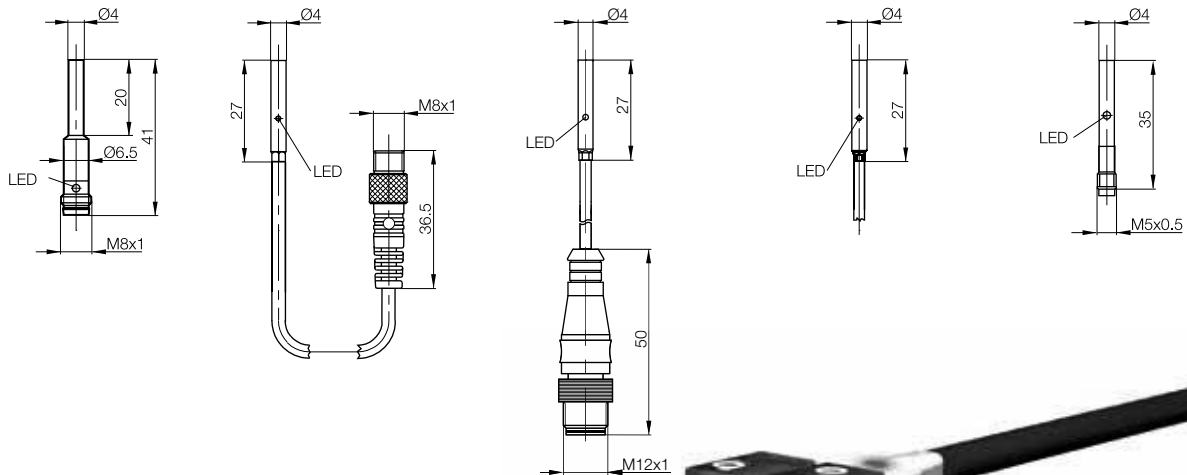
## Cylinder designs, Ø 4 mm



Ø 4 mm	Ø 4 mm	Ø 4 mm	Ø 4 mm	Ø 4 mm
Flush	Flush	Flush	Flush	Flush
<b>0.8 mm</b>	<b>0.8 mm</b>	<b>0.8 mm</b>	<b>0.8 mm</b>	<b>1.5 mm</b>
0...0.65 mm	0...0.65 mm	0...0.65 mm	0...0.65 mm	0...1.2 mm
■	■	■	■	■ ■
<b>BES00J5</b>	<b>BES00J3</b>	<b>BES00J0</b>	<b>BES00HW</b>	<b>BES012F</b>
BES 516-3007-E5-C-S49	BES 516-3007-E4-C-S49-00,3	BES 516-3007-E4-C-S4-00,3	BES 516-3007-E4-C-PU-02	BES G04ED-PSC15B-S26G
<b>BES00K4</b>	<b>BES00K3</b>		<b>BES00K1</b>	<b>BES012A</b>
BES 516-3017-E5-C-S49	BES 516-3017-E4-C-S49-00,3		BES 516-3017-E4-C-PU-02	BES G04ED-POC15B-S26G
			<b>BES00JP</b>	<b>BES0126</b>
			BES 516-3008-E4-C-PU-02	BES G04ED-NSC15B-S26G
<b>BES00KF</b>			<b>BES00KC</b>	<b>BES0123</b>
BES 516-3018-E5-C-S49			BES 516-3018-E4-C-PU-02	BES G04ED-NOC15B-S26G
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
3 V	3 V	3 V	3 V	3 V
75 V DC	75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA	100 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
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 67	IP 67	IP 67	IP 67	IP 67
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
<b>Narrow design</b>	<b>Narrow design</b>	<b>Narrow design</b>	<b>Narrow design</b>	<b>Narrow design</b>
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
PBT	PBT	PBT	PBT	PBT
M8 connector, 3-pin	0.3 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M12 connector, 4-pin	2 m PUR cable, 3x0.14 mm <sup>2</sup>	M5 connector, 4-pin



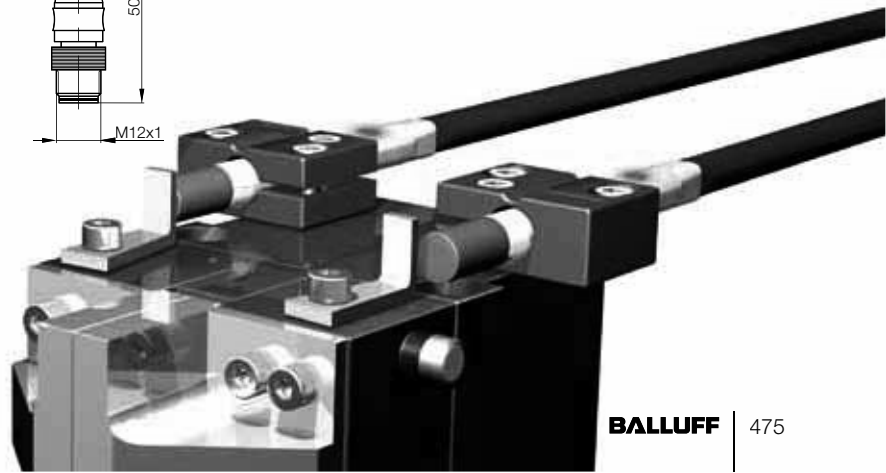
Inductive Sensors  
Global DC 3-wire  
DC 3-/4-wire  
Cylinder Designs  
Block Designs  
DC 2-wire  
AC/DC 2-wire  
AC 2-wire  
Special Properties  
Analog Distance measurement  
Accessories



### mini.s

#### Mini design – Maximum power

Inductive sensors Ø 3 mm: Large switching distance with smallest installation space. For even more function reserve and flexibility in application.



# DC 3-/4-wire Inductive Sensors

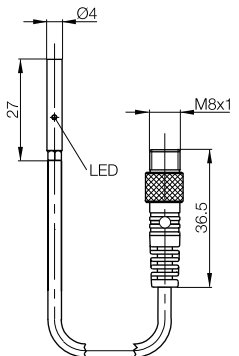
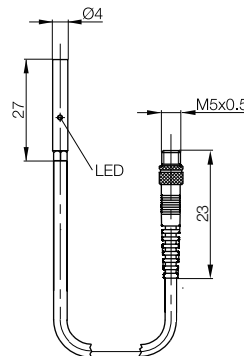
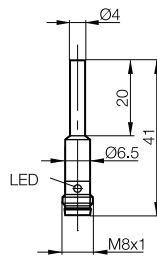
## Cylinder designs, Ø 4 mm



		Ø 4 mm	Ø 4 mm	Ø 4 mm
Installation type (observe instructions in the Basic Information chapter)		Flush	Flush	Flush
Rated switching distance $s_n$		<b>1.5 mm</b>	<b>1.5 mm</b>	<b>1.5 mm</b>
Assured switching distance $s_a$		0...1.2 mm	0...1.2 mm	0...1.2 mm
Switching distance marking		■ ■	■ ■	■ ■
PNP, NO	<b>Ordering code</b>	<b>BES00JN</b>	<b>BES00J8</b>	<b>BES00JJ</b>
	Part number	BES 516-3007-G-E5-C-S49	BES 516-3007-G-E4-C-S26-00,2	BES 516-3007-G-E4-C-S49-00,3
PNP, NC	<b>Ordering code</b>	<b>BES00KA</b>		<b>BES00K9</b>
	Part number	BES 516-3017-G-E5-C-S49		BES 516-3017-G-E4-C-S49-00,3
NPN, NO	<b>Ordering code</b>	<b>BES00K0</b>		
	Part number	BES 516-3008-G-E5-C-S49		
NPN, NC	<b>Ordering code</b>	<b>BES00KK</b>		
	Part number	BES 516-3018-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.		3 V	3 V	3 V
Rated insulation voltage $U_i$		75 V DC	75 V DC	75 V DC
Rated operating current $I_e$		100 mA	100 mA	100 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 67	IP 67	IP 67
Approvals		CE, cULus	CE, cULus	CE, cULus
Special properties		<b>Narrow design</b>	<b>Narrow design</b>	<b>Narrow design</b>
Material	Housing	Stainless steel	Stainless steel	Stainless steel
	Sensing surface	PBT	PBT	PBT
Connection		M8 connector, 3-pin	0.2 m PUR cable with M5 connector, 4-pin	0.3 m PUR cable with 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**

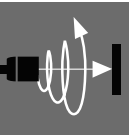


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## Cylinder designs, Ø 4 mm



	Ø 4 mm	Ø 4 mm	Ø 4 mm	Ø 4 mm	Ø 4 mm
	Flush	Flush	Flush	Not flush	Not flush
	<b>1.5 mm</b>	<b>1.5 mm</b>	<b>1.5 mm</b>	<b>5 mm</b>	<b>5 mm</b>
	0...1.2 mm	0...1.2 mm	0...1.2 mm	0...4 mm	0...4 mm
	■	■	■	■■■	■■■
		<b>BES00JA</b>	<b>BES00J6</b>	<b>BES012K</b>	<b>BES012H</b>
		BES 516-3007-G-E4-C-S4-00,3	BES 516-3007-G-E4-C-PU-02	BES G04ED-PSC50F-S26G	BES G04ED-PSC50F-EP02
			<b>BES00K5</b>	<b>BES012E</b>	<b>BES0127</b>
			BES 516-3017-G-E4-C-PU-02	BES G04ED-POC50F-S26G	BES G04ED-NSC50F-EP02
	<b>BES0156</b>		<b>BES00JW</b>	<b>BES0129</b>	
	BES 516-3008-G-E4-C-S49-PU-00,3		BES 516-3008-G-E4-C-PU-02	BES G04ED-NSC50F-S26G	
			<b>BES00KH</b>	<b>BES0125</b>	
			BES 516-3018-G-E4-C-PU-02	BES G04ED-NOC50F-S26G	
	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
	3 V	3 V	3 V	2.5 V	2.5 V
	75 V DC	75 V DC	75 V DC	75 V DC	75 V DC
	100 mA	100 mA	100 mA	100 mA	100 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
	1.8 kHz	3 kHz	3 kHz	3 kHz	3 kHz
	Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
	IP 67	IP 67	IP 67	IP 67	IP 67
	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
	<b>Narrow design</b>	<b>Narrow design</b>	<b>Narrow design</b>	<b>Narrow design, large switching distance</b>	<b>Narrow design, large switching distance</b>
	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	PBT	PBT	PBT	PET-C	PET-C
	0.3 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M12 connector, 4-pin	2 m PUR cable, 3x0.14 mm <sup>2</sup>	M5 connector, 4-pin	2 m PUR cable, 3x0.14 mm <sup>2</sup>



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

