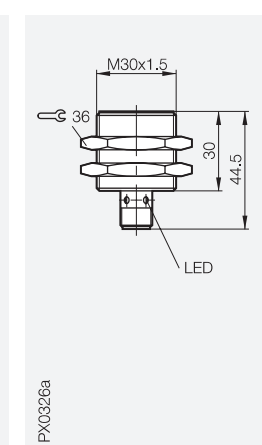
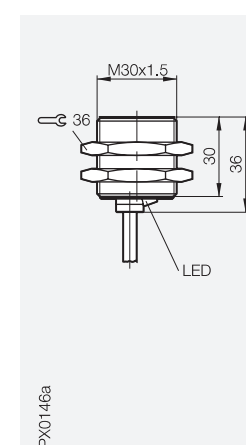
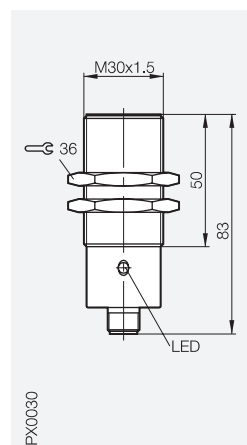
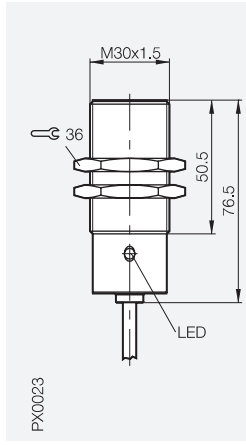


Inductive Sensors

DC 3-/4-Wire
M30
s_n 10 mm

Housing size	M30×1.5	M30×1.5	M30×1.5	M30×1.5
Mounting	flush	flush	flush	flush
Rated operating distance s _n	10 mm	10 mm	10 mm	10 mm
Assured operating distance s _a	0...8.1 mm	0...8.1 mm	0...8.1 mm	0...8.1 mm



PNP	Normally-open ①	BES 516-327-B0-C	BES 516-327-S 4-C	BES 516-327-E4-Y	BES 516-327-E5-Y-S 4
	Normally-closed ②	BES 516-3028-B0-C	BES 516-3028-S 4-C	BES 516-3028-E4-Y	BES 516-3028-E5-Y-S 4
	Complementary ③	BES 516-114-B0-C*	BES 516-114-S4-C*		

NPN	Normally-open ④	BES 516-359-B0-C	BES 516-359-S 4-C	BES 516-359-E4-Y	BES 516-359-E5-Y-S 4
	Normally-closed ⑤	BES 516-3032-B0-C	BES 516-3032-S 4-C		
	Complementary ⑥	BES 516-120-B0-C*	BES 516-120-S4 -C*		

Rated operational voltage U _a	24 V DC	24 V DC	24 V DC	24 V DC
Supply voltage U _s	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U _a at I _a	≤ 2.5 V	≤ 2.5 V	≤ 3.5 V	≤ 3.5 V
Rated insulation voltage U _i	250 V AC	250 V AC	75 V DC	75 V DC
Load current capacity	200 mA	200 mA	130 mA	130 mA
Current consumption (closed/open)	≤ 25 mA/≤ 12 mA*	≤ 25 mA/≤ 12 mA*	≤ 25 mA/≤ 12 mA	≤ 25 mA/≤ 12 mA
Off-state current I _r	≤ 80 μA	≤ 80 μA	≤ 80 μA	≤ 80 μA
Protected against polarity reversal	yes	yes	yes	yes
Short circuit protected	yes	yes	yes	yes
Load capacitance	≤ 1.0 μF	≤ 1.0 μF	≤ 1.0 μF	≤ 1.0 μF

Repeat accuracy R	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %
Ambient temperature range T _a	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
Frequency of operating cycles f	300 Hz	300 Hz	200 Hz	500 Hz
Utilization categories	DC 13	DC 13	DC 13	DC 13
Function indication	yes	yes	yes	yes

Degree of protection per IEC 529	IP 68	IP 68	IP 68	IP 67
Insulation Class	□	□		
Housing material	nickel plated brass	nickel plated brass	nickel plated brass	nickel plated brass
Material of sensing face	PA 12	PA 12	PA 12	PA 12
Connection	cable	connector	cable	connector
No. of wires x gauge	3 x 22 AWG*		3 x 24 AWG	
Approvals	UL, cULus	UL, cULus	UL, cULus	UL, cULus
Recommended connector		Micro C04...		Micro C04...

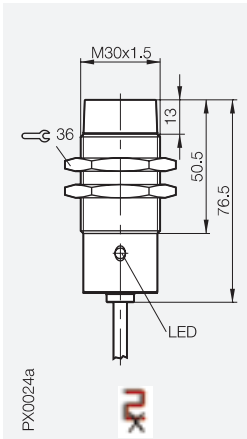
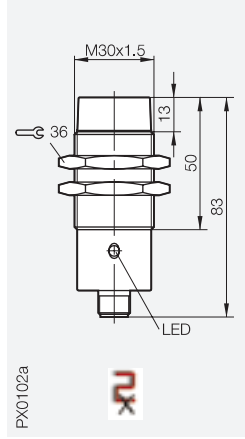
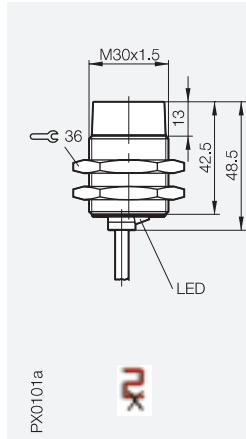
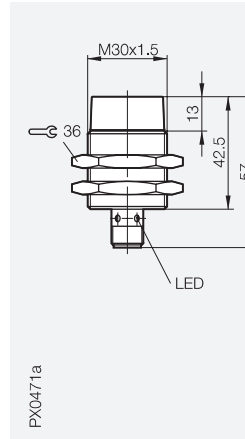



*complementary
≤30 mA/≤20 mA
4 x 24 AWG

① connection diagrams see page t.6
Please add the cable length to the ordering code for sensors with molded cable!
03, 05 = PVC 3 m or 5 m length
PU-03, PU-05 = PuFlex 3 m or 5 m length

- For mounting brackets & accessories see pg. 1.120
- For mating connectors see pg. 6.1

Inductive Sensors

DC 3-Wire
M30
s_n 15 mm

M30x1.5 non flush 15 mm 0...12.2 mm	M30x1.5 non flush 15 mm 0...12.2 mm	M30x1.5 non flush 15 mm 0...12.2 mm	M30x1.5 non flush 15 mm 0...12.2 mm	
				
BES 516-362-B0-C BES 516-3029-B0-C BES 516-125-B0-C*	BES 516-362-S 4-C BES 516-3029-S 4-C BES 516-125-S4-C*	BES 516-362-E4-Y BES 516-3029-E4-Y	BES 516-362-E5-Y-S 4 BES 516-3029-E5-Y-S 4	
BES 516-363-B0-C BES 516-3033-B0-C BES 516-126-B0-C*	BES 516-363-S 4-C BES 516-3033-S 4-C BES 516-126-S4-C*	BES 516-363-E4-Y	BES 516-363-E5-Y-S 4	
24 V DC 10...30 V DC ≤ 2.5 V 250 V AC 200 mA ≤ 25 mA/≤ 12 mA* ≤ 80 µA yes yes ≤ 1.0 µF	24 V DC 10...30 V DC ≤ 2.5 V 250 V AC 200 mA ≤ 25 mA/≤ 12 mA* ≤ 80 µA yes yes ≤ 1.0 µF	24 V DC 10...30 V DC ≤ 3.5 V 75 V DC 130 mA ≤ 25 mA/≤ 12 mA ≤ 80 µA yes yes ≤ 1.0 µF	24 V DC 10...30 V DC ≤ 3.5 V 75 V DC 130 mA ≤ 25 mA/≤ 12 mA ≤ 80 µA yes yes ≤ 1.0 µF	
≤ 5 % -25...+70 °C 100 Hz DC 13 yes	≤ 5 % -25...+70 °C 100 Hz DC 13 yes	≤ 5 % -25...+70 °C 100 Hz DC 13 yes	≤ 5 % -25...+70 °C 100 Hz DC 13 yes	
IP 68 	IP 68 	IP 68	IP 68 	
nickel plated brass PA 12 cable 3 x 22 AWG* UL, cULus	nickel plated brass PA 12 connector UL, cULus Micro C04...	nickel plated brass PA 12 cable 3 x 22 AWG UL, cULus	nickel plated brass PA 12 connector UL, cULus Micro C04...	

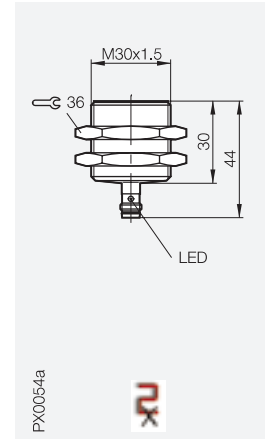
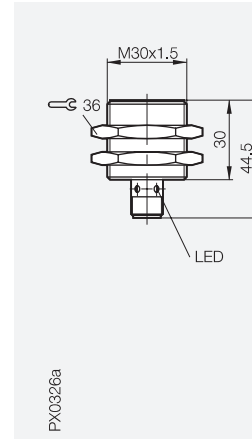
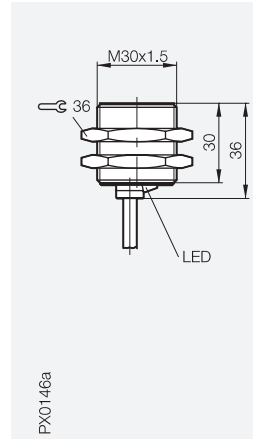
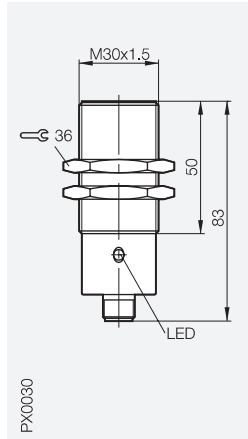
*complementary
≤30 mA/≤20 mA
4 x 24 AWG

*complementary
≤30 mA/≤20 mA



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Housing size	M30x1.5	M30x1.5	M30x1.5	M30x1.5
Mounting	flush	flush	flush	flush
Rated operating distance s _n	15 mm	15 mm	15 mm	15 mm
Assured operating distance s _a	0...12.2 mm	0...12.2 mm	0...12.2 mm	0...12.2 mm



PNP	Normally-open ①	BES 516-327-G-S 4-H	BES 516-327-G-E4-Y	BES 516-327-G-E5-Y-S 4	BES 516-327-G-E5-Y-S 49
	Normally-closed ②		BES 516-3028-G-E4-Y	BES 516-3028-G-E5-Y-S 4	BES 516-3028-G-E5-Y-S 49
	Complementary ③	BES 516-114-G-S 4-H			
NPN	Normally-open ④		BES 516-359-G-E4-Y		BES 516-359-G-E5-Y-S 49
	Normally-closed ⑤		BES 516-3032-G-E4-Y		BES 516-3032-G-E5-Y-S 49
	Complementary ⑥				

Rated operational voltage U _B	24 V DC	24 V DC	24 V DC	24 V DC
Supply voltage U _B	10...55 V DC	10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U _d at I _B	≤ 2.5 V	≤ 3.5 V	≤ 3.5 V	≤ 3.5 V
Rated insulation voltage U _i	250 V AC	75 V DC	75 V DC	75 V DC
Load current capacity	200 mA	130 mA	130 mA	130 mA
Current consumption (closed/open)	≤ 15 mA/≤ 10 mA	≤ 25 mA/≤ 12 mA	≤ 25 mA/≤ 12 mA	≤ 25 mA/≤ 12 mA
Off-state current I ₀	≤ 80 μA	≤ 80 μA	≤ 80 μA	≤ 80 μA
Protected against polarity reversal	yes	yes	yes	yes
Short circuit protected	yes	yes	yes	yes
Load capacitance	≤ 1.0 μF	≤ 1.0 μF	≤ 1.0 μF	≤ 1.0 μF
Repeat accuracy R	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %
Ambient temperature range T _a	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
Frequency of operating cycles f	150 Hz	100 Hz	100 Hz	100 Hz
Utilization categories	DC 13	DC 13	DC 13	DC 13
Function indication	yes	yes	yes	yes
Degree of protection per IEC 529	IP 68	IP 68	IP 67	IP 67
Insulation Class	□			
Housing material	nickel plated brass	nickel plated brass	nickel plated brass	nickel plated brass
Material of sensing face	PA 12	PA 12	PA 12	PA 12
Connection	connector	cable	connector	connector
No. of wires x gauge		3 x 22 AWG		
Approvals	UL, cULus	UL, cULus	UL, cULus	UL, cULus
Recommended connector	Micro C04...		Micro C04...	Nano C49...

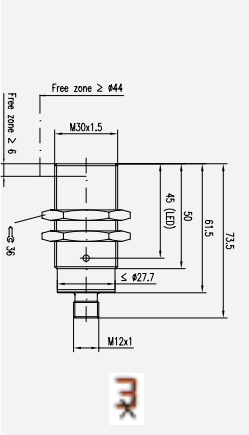
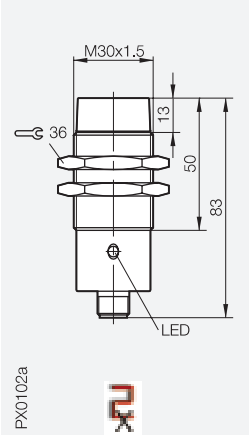
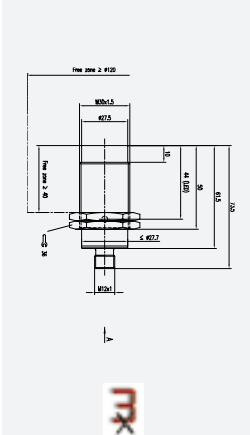
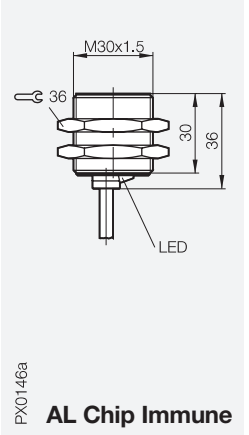
① connection diagrams see page t.6

Please add the cable length to the ordering code for sensors with molded cable!
03, 05 = PVC 3 m or 5 m length
PU-03, PU-05 = PuFlex 3 m or 5 m length

- For mounting brackets & accessories see pg. 1.120
- For mating connectors see pg. 6.1

Inductive Sensors

DC 3-/4-Wire
M30
s_n 22, 30, 40 mm

M30x1.5 flush 22 mm 0...17.6 mm	M30x1.5 non flush 30 mm 0...24 mm	M30x1.5 non flush 40 mm 0...32 mm	M30x1.5 flush 8 mm 0...6.4 mm	
				
BES M30MI1-PSC22B-S04G	BES 516-362-G-S 4-H	BES M30MG1-PSC40F-S04G		
BES M30MI1-NSC22B-S04G		BES M30MG1-NSC40F-S04G	BES BN3-3008-N-J-02	
24 V DC 10...30 V DC ≤ 2.0 V 75 V DC 200 mA ≤ 12 mA/≤ 10 mA ≤ 100 μA yes yes ≤ 1.0 μF	24 V DC 10...55 V DC ≤ 2.5 V 250 V AC 200 mA ≤ 15 mA/≤ 10 mA ≤ 80 μA yes yes ≤ 1.0 μF	24 V DC 10...30 V DC ≤ 2.5 V 75 V DC 200 mA ≤ 12 mA/≤ 10 mA ≤ 100 μA yes yes ≤ 1.0 μF	24 V DC 10...30 V DC ≤ 3.5 V 75 V DC 130 mA ≤ 12 mA/≤ 10 mA ≤ 80 μA yes yes ≤ 1.0 μF	
≤ 5 % -25...+70 °C 200 Hz DC 13 yes	≤ 5 % -25...+70 °C 70 Hz DC 13 yes	≤ 5 % -25...+70 °C 100 Hz DC 13 yes	≤ 5 % -25...+70 °C 15 Hz DC 13 yes	
IP 67	IP 68	IP 67	IP 68	
chrome plated brass PBT connector	nickel plated brass PA 12 connector	chrome plated brass PBT connector	nickel plated brass PA12 cable 3 x 22 AWG	
Micro C04...	UL, cULus Micro C04...	Micro C04...		



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