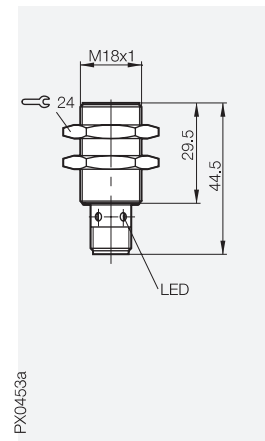
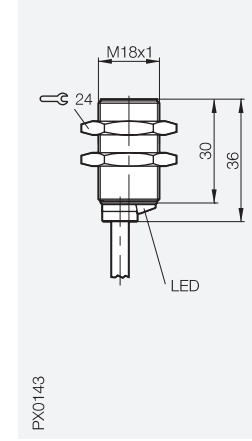
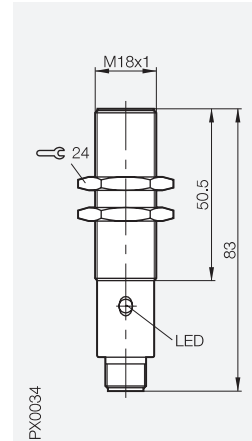
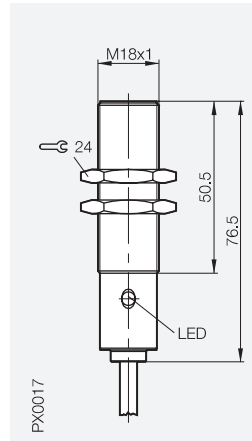


Inductive Sensors

DC 3-/4-Wire
M18
s_n 5 mm

Housing size	M18x1	M18x1	M18x1	M18x1
Mounting	flush	flush	flush	flush
Rated operating distance s _n	5 mm	5 mm	5 mm	5 mm
Assured operating distance s _a	0...4 mm	0...4 mm	0...4 mm	0...4 mm



PNP	Normally-open ①	BES 516-326-B0-C	BES 516-326-S 4-C	BES 516-326-E4-Y	BES 516-326-E5-Y-S 4
	Normally-closed ②	BES 516-367-B0-C	BES 516-367-S 4-C	BES 516-367-E4-Y	BES 516-367-E5-Y-S 4
	Complementary ③	BES 516-105-B0-C*	BES 516-105-S 4-C*		

NPN	Normally-open ④	BES 516-355-B0-C	BES 516-355-S 4-C	BES 516-355-E4-Y	BES 516-355-E5-Y-S 4
	Normally-closed ⑤	BES 516-366-B0-C	BES 516-366-S 4-C		
	Complementary ⑥	BES 516-111-B0-C*	BES 516-111-S 4-C*		

Rated operational voltage U _e	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 _d at I _e	≤ 1.5 V/≤2.5V*	≤ 1.5 V/≤2.5V*	≤ 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)	≤ 8 mA/≤ 1 mA**	≤ 8 mA/≤ 1 mA**	≤ 25 mA/≤ 12 mA	≤ 25 mA/≤ 12 mA
Off-state current I _r	≤ 10 μA/80 μA*	≤ 10 μA/80 μA*	≤ 80 μA	≤ 80 μA
Protected against polarity reversal	yes	yes	yes	yes
Short circuit protected	yes	yes	yes	yes
Load capacitance	≤ 0.8 μF/1.0 μF*	≤ 0.8 μF/1.0 μF*	≤ 1.0 μF	≤ 1.0 μF

Repeat accuracy R	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %
Ambient temperature range T _a	-40...+85 °C	-40...+85 °C	-25...+70 °C	-25...+70 °C
Frequency of operating cycles f	900 Hz/500 Hz*	900 Hz/500 Hz*	500 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 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	cable	connector	cable	connector
No. of wires x gauge	3 x 22 AWG*		3 x 22 AWG	
Approvals	UL, cULus	UL, cULus	UL, cULus	UL, cULus
Recommended connector		Micro C04...		Micro C04...

*complementary
**≤30 mA/≤20 mA
4 x 23 AWG

*complementary
**≤30 mA/≤20 mA

① connection diagrams see page t.6

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

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

Inductive Sensors

DC 3-Wire
M18
S_n 8 mm

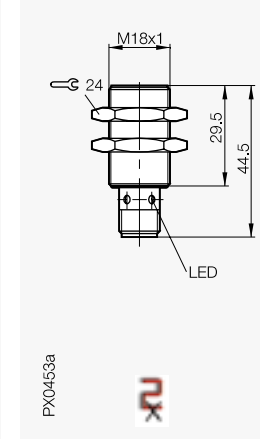
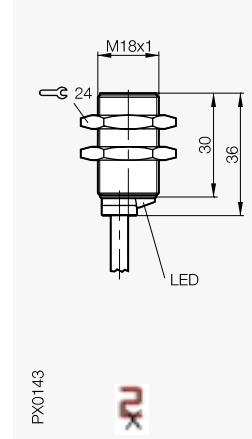
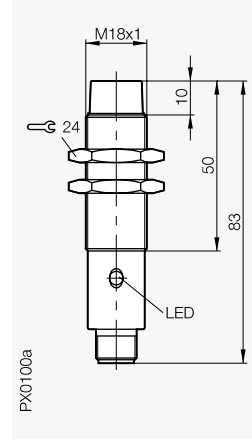
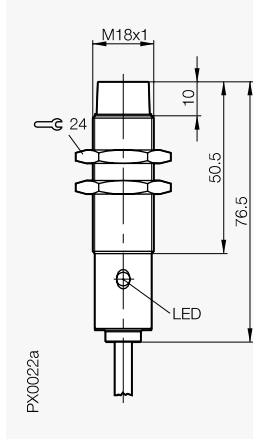
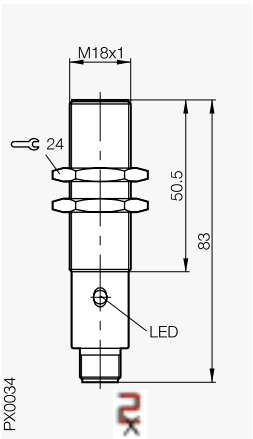
M18×1
flush
8 mm
0...6.5 mm

M18×1
non flush
8 mm
0...6.5 mm

M18×1
non flush
8 mm
0...6.5 mm

M18×1
flush
8 mm
0...6.5 mm

M18×1
flush
8 mm
0...6.5 mm



BES 516-326-G-S 4-H
BES 516-105-G-S 4-H

BES 516-360-B0-C
BES 516-3026-B0-C
BES 516-123-B0-C*

BES 516-360-S4-C
BES 516-3026-S4-C
BES 516-123-S4-C*

BES 516-326-G-E4-Y
BES 516-367-G-E4-Y

BES 516-326-G-E5-Y-S 4
BES 516-367-G-E5-Y-S 4

BES 516-361-B0-C
BES 516-3031-B0-C
BES 516-124-B0-C*

BES 516-361-S4-C
BES 516-3031-S4-C
BES 516-124-S4-C*

BES 516-355-G-E4-Y
BES 516-366-G-E4-Y

BES 516-355-G-E4-S4

24 V DC
10...55 V DC
≤ 2.5 V
75 V DC
200 mA
≤ 15 mA/≤ 10 mA
≤ 80 μA
yes
yes
≤ 1.0 μF

24 V DC
10...30 V DC
≤ 1.5 V/≤ 2.5V
250 V AC
200 mA
≤ 8 mA/≤ 1 mA**
≤ 10 μA/≤ 80 μA*
yes
yes
≤ 0.8 μF/≤ 1.0 μF*

24 V DC
10...30 V DC
≤ 1.5 V/≤ 2.5V*
250 V AC
200 mA
≤ 8 mA/≤ 1 mA*
≤ 10 μA/≤ 80 μA*
yes
yes
≤ 0.8 μF/≤ 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 %
0...+70 °C
80 Hz
DC 13
yes

≤ 5 %
-40...+85 °C
600 Hz/200 Hz*
DC 13
yes

≤ 5 %
-40...+85 °C
600 Hz/200 Hz*
DC 13
yes

≤ 5 %
-25...+70 °C
200 Hz
DC 13
yes

≤ 5 %
-25...+70 °C
200 Hz
DC 13
yes

IP 67

IP 68

IP 68

IP 68

IP 67

nickel plated brass
PA 12
connector
UL, cULus
Micro C04...

nickel plated brass
PA 12
cable
3 × 22 AWG
UL, cULus

nickel plated brass
PA 12
connector
UL, cULus
Micro C04...

nickel plated brass
PA 12
cable
3 × 22 AWG
UL, cULus

nickel plated brass
PA 12
connector
UL, cULus
Micro C04...

*complementary
** ≤30 mA/≤20 mA
4 x 23 AWG

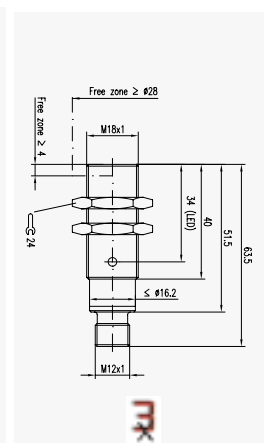
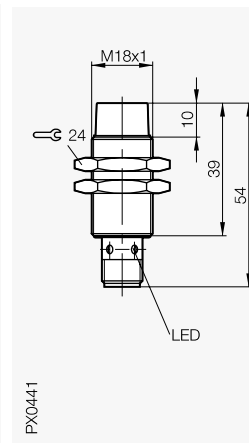
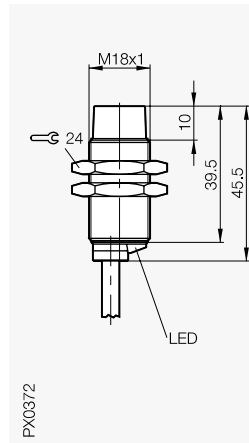
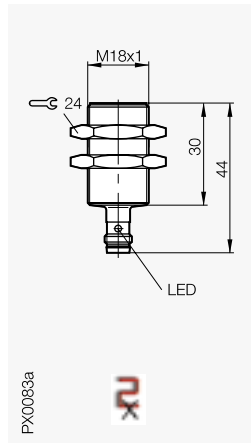
*complementary
≤30 mA/≤20 mA



Inductive Sensors

DC 3-/4-Wire
M18
S_n 8 mm

Housing size	M18×1	M18×1	M18×1	M18×1
Mounting	flush	non flush	non flush	flush
Rated operating distance s _r	8 mm	8 mm	8 mm	12 mm
Assured operating distance s _a	0...6.5 mm	0...6.5 mm	0...6.5 mm	0...9.6 mm



PNP	Normally-open	BES 516-326-G-E5-Y-S 49	BES 516-360-E4-Y	BES 516-360-E5-Y-S 4	BES 516-M18MG1-PSC12B-S04G
	Normally-closed	BES 516-367-G-E5-Y-S 49	BES 516-3026-E4-Y	BES 516-3026-E5-Y-S 4	
	Complementary				
NPN	Normally-open	BES 516-355-G-E5-Y-S 49	BES 516-361-E4-Y	BES 516-361-E5-Y-S 4	BES 516-M18MG1-NSC12B-S04G
	Normally-closed	BES 516-366-G-E5-Y-S 49			
	Complementary				
Rated operational voltage U _o	24 V DC	24 V DC	24 V DC	24 V DC	
Supply voltage U _B	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	
Voltage drop U _d at I _o	≤ 3.5 V	≤ 3.5 V	≤ 3.5 V	≤ 2.0 V	
Rated insulation voltage U _i	75 V DC	75 V DC	75 V DC	75 V DC	
Load current capacity	130 mA	130 mA	130 mA	200 mA	
Current consumption (closed/open)	≤ 25 mA/≤ 12 mA	≤ 25 mA/≤ 12 mA	≤ 25 mA/≤ 12 mA	≤ 12 mA/≤ 10 mA	
Off-state current I _r	≤ 80 µA	≤ 80 µA	≤ 80 µA	≤ 100 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	200 Hz	200 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 67	IP 68	IP 67	IP 67	
Insulation Class					
Housing material	nickel plated brass	nickel plated brass	nickel plated brass	chrome plated brass	
Material of sensing face	PA 12	PA 12	PA 12	PBT	
Connection	connector	cable	connector	connector	
No. of wires × gauge		3 × 22 AWG			
Approvals	UL, cULus	UL, cULus	UL, cULus		
Recommended connector	Nano C49...		Micro C04...	Micro C04...	

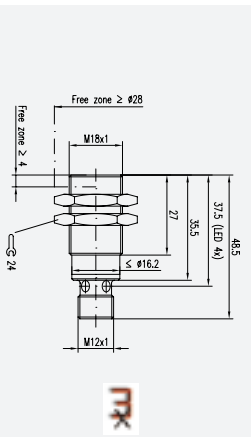
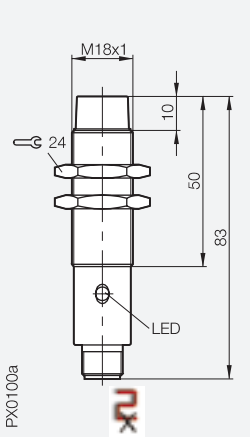
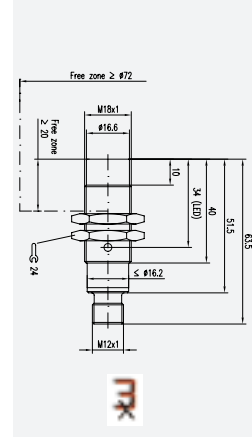
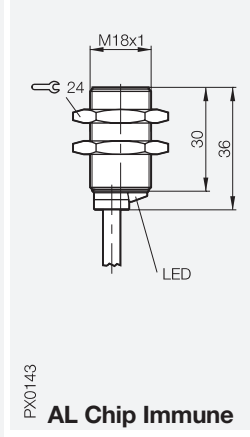
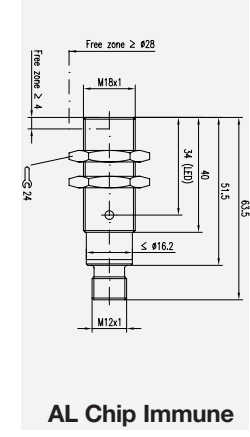
connection diagrams see page t.6

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



Inductive Sensors

DC 3-/4-Wire
M18
S_n 12, 16, 20 mm

M18x1 flush 12 mm 0...9.6 mm	M18x1 non flush 16 mm 0...13 mm	M18x1 non flush 20 mm 0...16.2 mm	M18x1 flush 4 mm 0...3.2 mm	M18x1 flush 4 mm 0...3.2 mm
				
BES 516-M18MD1-PSC12B-S04G	BES 516-360-G-S 4-H	BES 516-M18ME1-PSC20F-S04G	BES BN3-1804-P-J02	BES BCNS-1804-P-S4
BES 516-M18MD1-NSC12B-S04G	BES 516-123-G-S 4-H	BES 516-M18ME1-NSC20F-S04G	BES BN3-1804-N-J02	
24 V DC 10...30 V DC ≤ 2V	24 V DC 10...55 V DC ≤ 2.5 V	24 V DC 10...30 V DC ≤ 2V	24 V DC 10...30 V DC ≤ 3.5V	24 V DC 10...30 V DC ≤ 3.5V
75 V DC 200 mA ≤ 12 mA/≤ 10 mA ≤ 100 μA	250 V AC 200 mA ≤ 15 mA/≤ 5 mA ≤ 80 μA	75 V DC 200 mA ≤ 12 mA/≤ 10 mA ≤ 100 μA	75 V DC 130 mA ≤ 25 mA/≤ 12 mA ≤ 80 μA	75 V DC 130 mA ≤ 25 mA/≤ 12 mA ≤ 80 μA
yes yes ≤ 1.0 μF	yes yes ≤ 1.0 μF	yes yes ≤ 1.0 μF	yes yes	yes yes
≤ 5 % -25...+70 °C 500 Hz DC 13 yes	≤ 5 % -25...+70 °C 600 Hz DC 13 yes	≤ 5 % -25...+70 °C 200 Hz DC 13 yes	≤ 5 % -25...+70 °C 30 Hz DC 13 yes	≤ 5 % -25...+70 °C 30 Hz DC 13 yes
IP 67 chrome plated brass PBT connector	IP 68 nickel plated brass PA 12 connector	IP 67 chrome plated brass PBT connector	IP 68 nickel plated brass PA12 cable 3 x 22 AWG	IP 68 nickel plated brass PA12 connector
Micro C04...	UL Micro C04...	Micro C04...		Micro C04...

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

1