

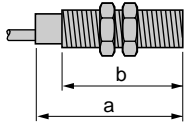
# Inductive proximity sensors

Cylindrical type, Ø 4 mm plain or M5 x 0.5 threaded  
Metal case (stainless steel), short  
d.c. supply

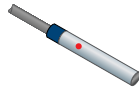
Accessories :  
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References, characteristics, dimensions, schemes

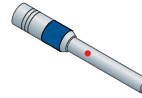
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded or plain section



a = 29  
b = 29



a = 41  
b = 24

Nominal sensing distance (S <sub>n</sub> )	0.8 mm	0.8 mm
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## References

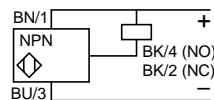
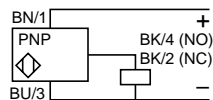
3-wire ---	PNP	NO	<b>XS1-L04PA311</b>	<b>XS1-L04PA311S</b>
	NPN	NO	<b>XS1-L04NA311</b>	<b>XS1-L04NA311S</b>
Weight (kg)			0.025	0.010

## Characteristics

Connection	Pre-cabled, 3 x 0.11 mm <sup>2</sup> , length 2 m (1)	Connector (types 1 to 8) (2)
Degree of protection	IP 67	Depending on connector (see pages 3/58 and 3/59)
Operating temperature	- 25...+ 70 °C	
Output state indication	LED, side mounted	
Voltage limits (including ripple)	--- 5...30 V	
Switching capacity	0...100 mA with overload and short-circuit protection	
Voltage drop, closed state	≤ 2 V	
Current consumption, no-load	≤ 10 mA	
Maximum switching frequency	5000 Hz	

## Wiring schemes

3-wire ---, NO output

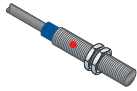


(1) Sensors pre-cabled with other cable lengths :

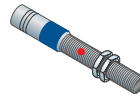
Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.030 kg
10 m	<b>L2</b>	0.080 kg

Example : sensor **XS1-L04PA311** with 5 m cable becomes **XS1-L04PA311L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.



a = 29  
b = 24



a = 41  
b = 24

0.8 mm	0.8 mm
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XS1-N05PA311	XS1-N05PA311S
XS1-N05NA311	XS1-N05NA311S
0.030	0.015

<b>Pre-cabled, 3 x 0.11 mm<sup>2</sup>, length 2 m (1)</b>	<b>Connector (types 1 to 8) (2)</b>
IP 67	Depending on connector (see pages 3/58 and 3/59)
- 25...+ 70 °C	
LED, side mounted	
⎓ 5...30 V	
<b>0...100 mA with overload and short-circuit protection</b>	
≤ 2 V	
≤ 10 mA	
5000 Hz	

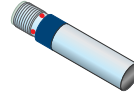
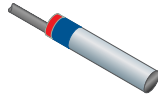
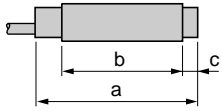
# Inductive proximity sensors

Cylindrical type, Ø 6.5 mm plain  
Metal case (brass or stainless steel), short  
d.c. supply

Accessories :  
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References, characteristics, dimensions, schemes

## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Plain section  
c = For non flush mounting sensors

a = 33 (XS1-L06●C410 : a = 50)  
b = 30 (XS1-L06●C410 : b = 47)

a = 42  
b = 34

	Stainless steel case	Brass case	Stainless steel case	Brass case
<b>Nominal sensing distance (S<sub>n</sub>)</b>	<b>1.5 mm</b>	<b>Increased range model 2.5 mm</b>	<b>1.5 mm</b>	<b>Increased range model 2.5 mm</b>

## References

3-wire ---	PNP	NO	<b>XS1-L06PA340</b>	<b>XS1-L06PA349</b>	<b>XS1-L06PA340S</b>	<b>XS1-L06PA349S</b>
	NPN	NO	<b>XS1-L06NA340</b>	<b>XS1-L06NA349</b>	<b>XS1-L06NA340S</b>	<b>XS1-L06NA349S</b>
4-wire --- (complementary outputs)	PNP	NO + NC	<b>XS1-L06PC410</b>	–	–	–
	NPN	NO + NC	<b>XS1-L06NC410</b>	–	–	–
Weight (kg)			0.025	0.025	0.010	0.010

## Characteristics

<b>Connection</b>	<b>Pre-cabled, 3 x 0.11 mm<sup>2</sup> or 4 x 0.08 mm<sup>2</sup>, L = 2 m (1)</b>		<b>Connector (types 1 to 8) (2)</b>	
<b>Degree of protection</b>	IP 67		Depending on connector (see pages 3/58 and 3/59)	
<b>Operating temperature</b>	- 25...+ 70 °C	- 25...+ 50 °C	- 25...+ 70 °C	- 25...+ 50 °C
<b>Output state indication</b>	LED, annular		LED, 4 viewing ports at 90°	
<b>Voltage limits (including ripple)</b>	--- 10...38 V (~ 24 V rectified and filtered)			
<b>Switching capacity</b>	<b>0...200 mA with overload and short-circuit protection</b>			
<b>Voltage drop, closed state</b>	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
<b>Current consumption, no-load</b>	≤ 10 mA	≤ 10 mA	≤ 10 mA	≤ 10 mA
<b>Maximum switching frequency</b>	5000 Hz	350 Hz	5000 Hz	350 Hz

## Wiring schemes

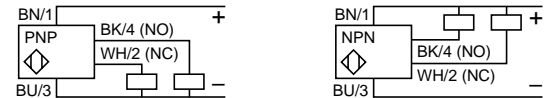
3-wire ---, NO output

**XS1/XS2-L06●●340/340S/340D/349/349S/349D**



4-wire ---, NO + NC output

**XS1-L06●●410**



**Note** : for **XS●-L06●●34●S** sensors, NO or NC output on terminal 4

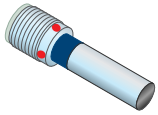
(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.030 kg
10 m	<b>L2</b>	0.080 kg

Example : sensor **XS1-L06PA340** with 5 m cable becomes **XS1-L06PA340L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

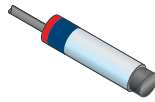
Non flush mountable in metal



a = 45  
b = 24

Stainless steel case

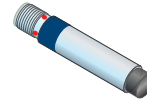
1.5 mm



a = 33  
b = 27  
c = 3

Stainless steel case

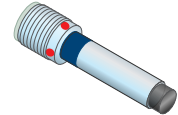
2.5 mm



a = 42  
b = 31  
c = 3

Stainless steel case

2.5 mm



a = 45  
b = 21  
c = 3

Stainless steel case

2.5 mm

XS1-L06PA340D	XS1-L06PA349D	XS2-L06PA340	XS2-L06PA340S	XS2-L06PA340D
XS1-L06NA340D	XS1-L06NA349D	XS2-L06NA340	XS2-L06NA340S	XS2-L06NA340D
-	-	-	-	-
-	-	-	-	-
0.015	0.015	0.025	0.010	0.015

Connector (types 9, 10, 11/12, 15, 16) (2)	Connector (types 9, 10, 11, 12, 15, 16) (2)	Pre-cabled, 3 x 0.11 or 4 x 0.08 mm <sup>2</sup> , L = 2 m (1)	Connector (types 1 to 8) (2)	Connector (types 9, 10, 11/12, 15, 16) (2)
Depending on connector (see pages 3/58 and 3/59)		IP 67	Depending on connector (see pages 3/58 and 3/59)	
- 25...+ 70 °C	- 25...+ 50 °C	- 25...+ 70 °C		
LED, 4 viewing ports at 90°		LED, annular	LED, 4 viewing ports at 90°	
≡ 10...38 V (~ 24 V rectified and filtered)				
<b>0...200 mA with overload and short-circuit protection</b>				
≤ 2 V	≤ 2.6 V	≤ 2 V		
≤ 10 mA	≤ 10 mA	≤ 10 mA		
5000 Hz	350 Hz	5000 Hz		

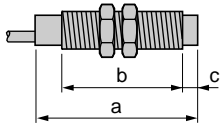
# Inductive proximity sensors

Cylindrical type, M8 x 1 threaded  
Metal case (brass), short  
d.c. supply

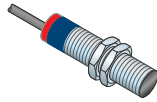
Accessories :  
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References, characteristics, dimensions, schemes

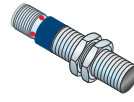
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 33  
b = 26



a = 42  
b = 26

Nominal sensing distance (S <sub>n</sub> )	1.5 mm	Increased range model 2.5 mm	1.5 mm	Increased range model 2.5 mm
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## References

3-wire ---	PNP	NO	<b>XS1-N08PA340</b>	<b>XS1-N08PA349</b>	<b>XS1-N08PA340S</b>	<b>XS1-N08PA349S</b>
	NPN	NO	<b>XS1-N08NA340</b>	<b>XS1-N08NA349</b>	<b>XS1-N08NA340S</b>	<b>XS1-N08NA349S</b>
Weight (kg)			0.035	0.035	0.015	0.015

## Characteristics

Connection	Pre-cabled, 3 x 0.11 mm <sup>2</sup> or 4 x 0.08 mm <sup>2</sup> , L = 2 m (1)		Connector (types 1 to 8) (2)	
Degree of protection	IP 67		Depending on connector (see pages 3/58 and 3/59)	
Operating temperature	- 25...+ 70 °C	- 25...+ 50 °C	- 25...+ 70 °C	- 25...+ 50 °C
Output state indication	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)	--- 10...38 V (~ 24 V rectified and filtered)			
Switching capacity	0...200 mA with overload and short-circuit protection			
Voltage drop, closed state	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
Current consumption, no-load	≤ 10 mA	≤ 10 mA	≤ 10 mA	≤ 10 mA
Maximum switching frequency	5000 Hz	350 Hz	5000 Hz	350 Hz

## Wiring schemes

3-wire ---, NO output  
**XS1/XS2-N08●●340/340S/340D/349/349S/349D**



Note : for **XS●-N08●●34●S** sensors, NO output on terminal 4

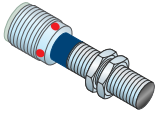
(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.030 kg
10 m	<b>L2</b>	0.080 kg

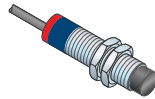
Example : sensor **XS1-N08PA340** with 5 m cable becomes **XS1-N08PA340L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

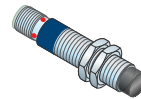
Non flush mountable in metal



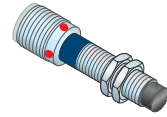
a = 45  
b = 24



a = 33  
b = 22  
c = 4



a = 42  
b = 23  
c = 4



a = 45  
b = 20  
c = 4

1.5 mm	Increased range model 2.5 mm	2.5 mm	2.5 mm	2.5 mm
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XS1-N08PA340D	XS1-N08PA349D	XS2-N08PA340	XS2-N08PA340S	XS2-N08PA340D
XS1-N08NA340D	XS1-N08NA349D	XS2-N08NA340	XS2-N08NA340S	XS2-N08NA340D
0.020	0.020	0.035	0.015	0.020

Connector (types 9, 10, 11/12, 15, 16) (2)	Connector (types 9, 10, 11/12, 15, 16) (2)	Pre-cabled, 3 x 0.11 or 4 x 0.08 mm <sup>2</sup> , L = 2 m (1)	Connector (types 1 to 8) (2)	Connector (types 9, 10, 11/12, 15, 16) (2)
Depending on connector (see pages 3/58 and 3/59)		IP 67	Depending on connector (see pages 3/58 and 3/59)	
- 25...+ 70 °C	- 25...+ 50 °C	- 25...+ 70 °C		
LED, 4 viewing ports at 90°		LED, annular	LED, 4 viewing ports at 90°	
≡ 10...38 V (~ 24 V rectified and filtered)				
<b>0...200 mA with overload and short-circuit protection</b>				
≤ 2 V	≤ 2.6 V	≤ 2 V		
≤ 10 mA	≤ 10 mA	≤ 10 mA		
5000 Hz	350 Hz	800 Hz		

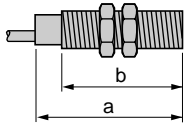
# Inductive proximity sensors

Cylindrical type, M8 x 1 threaded  
Metal case (stainless steel), form A  
d.c. supply

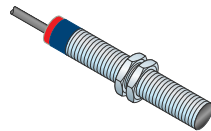
Accessories:  
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References, characteristics, dimensions, schemes

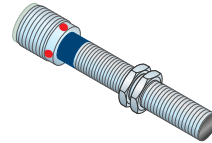
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 50  
b = 40



a = 61  
b = 40

Nominal sensing distance (S <sub>n</sub> )	1.5 mm	1.5 mm
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## References

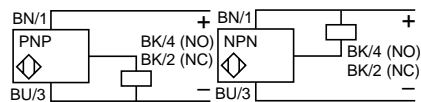
3-wire ---	PNP	NO	XS1-M08PA370	–	XS1-M08PA370D	–
		NC	XS1-M08PB370	–	XS1-M08PB370D	–
	NPN	NO	XS1-M08NA370	–	XS1-M08NA370D	–
2-wire --- (non polarised)	Supply to : Terminals 3-4 NO		–	–	–	–
4-wire --- (complementary outputs)	PNP	NO + NC	–	XS1-M08PC410	–	XS1-M08PC410D
Weight (kg)			0.035	0.035	0.025	0.025

## Characteristics

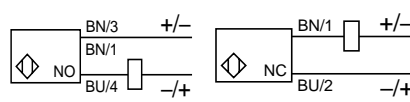
Connection	Pre-cabled, 3 x 0.11 mm <sup>2</sup> , length 2 m (1)	Connector (types 9, 10, 11/12, 15, 16) (2)
Degree of protection	IP 67	Depending on connector (see pages 3/58 and 3/59)
Operating temperature	- 25...+ 80 °C	
Output state indication	LED annular	LED, 4 viewing ports at 90°
Voltage limits (including ripple)	--- 10...58 V	--- 10...38 V
Switching capacity	0...200 mA with overload and short-circuit protection	
Voltage drop, closed state	≤ 2 V	
Current consumption, no-load	≤ 10 mA	
Maximum switching frequency	5000 Hz	

## Wiring schemes

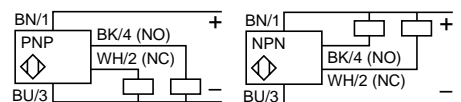
3-wire ---, NO or NC output  
XS1-M08●●370/370D



2-wire --- non polarised, NO output  
XS1-M08D●210/210D/210LD



4-wire ---, NO + NC output  
XS1-M08●●410/410D

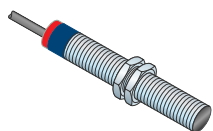


(1) Sensors pre-cabled with other cable lengths:

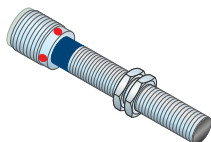
Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	L1	0.030 kg
10 m	L2	0.080 kg

Example: sensor XS1-M08PA370 with 5 m cable becomes XS1-M08PA370L1

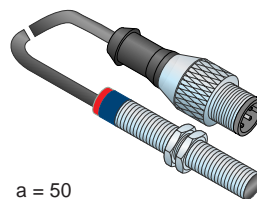
(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.



a = 50  
b = 40



a = 61  
b = 40



a = 50  
b = 40  
Length of cable: 0.8 m

1.5 mm	1.5 mm	1.5 mm
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-	-	-
-	-	-
-	-	-
<b>XS1-M08DA210</b>	<b>XS1-M08DA210D</b>	<b>XS1-M08DA210LD</b>
-	-	-
0.035	0.025	0.040

3

<b>Pre-cabled, 2 x 0.11 mm<sup>2</sup>, length 2 m (1)</b>	<b>Connector (types 9, 10, 15, 16) (2)</b>	<b>Connector (types 9, 10, 15, 16) or splitter boxes (2)</b>
IP 67	Dpg. on connector (see pages 3/58 and 3/59)	
- 25...+ 80 °C		
LED, annular	LED, 4 viewing ports at 90°	LED, annular
~ 10...58 V		
<b>1,5...100 mA with overload and short-circuit protection</b>		
≤ 5.2 V		
-		
800 Hz		



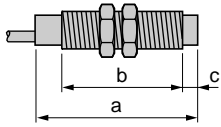
# Inductive proximity sensors

Cylindrical type, M8 x 1 threaded  
Metal case (stainless steel), form A  
a.c. or d.c. supply

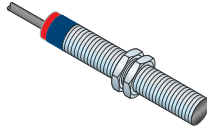
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 50  
b = 40

<b>Nominal sensing distance (S<sub>n</sub>)</b>	<b>1.5 mm</b>
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## References

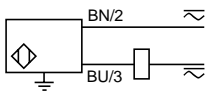
2-wire ~ or ---	NO	<b>XS1-M08MA230</b>
	NC	<b>XS1-M08MB230</b>
Weight (kg)	0.035	

## Characteristics

<b>Connection</b>	<b>Pre-cabled, 2 x 0.11 mm<sup>2</sup>, length 2 m (1)</b>
<b>Degree of protection</b>	IP 67
<b>Operating temperature</b>	- 25...+ 80 °C
<b>Output state indication</b>	LED, annular
<b>Voltage limits (including ripple)</b>	~ or --- 20...264 V
<b>Switching capacity</b>	<b>5...100 mA (2)</b>
<b>Voltage drop, closed state</b>	≤ 5.5 V
<b>Current consumption, no-load</b>	–
<b>Maximum switching frequency</b>	(~) 25 Hz or (---) 650 Hz

## Wiring schemes

2-wire ~ or ---, NO or NC output



⏏ For connector version sensors

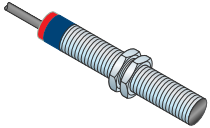
(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.030 kg
10 m	<b>L2</b>	0.080 kg

Example : sensor **XS1-M08MA230** with 5 m cable becomes **XS1-M08MA230L1**

(2) These sensors do not incorporate overload or short-circuit protection and therefore, it is recommended that a 0.8 A "quick-blow" fuse be connected in series with the load.

Non flush mountable in metal



a = 50  
b = 36  
c = 4

2.5 mm

XS2-M08MA230

XS2-M08MB230

0.035

Pre-cabled, 2 x 0.11 mm<sup>2</sup>, length 2 m (1)

IP 67

- 25...+ 80 °C

LED, annular

~ or = 20...264 V

5...100 mA (2)

≤ 5.5 V

-

(~) 25 Hz or (=) 400 Hz

3

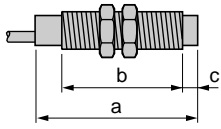
# Inductive proximity sensors

Cylindrical type, M12 x 1 threaded  
Metal case (brass), short  
d.c. supply

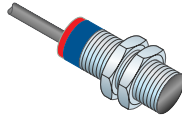
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

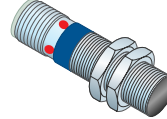
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 33  
b = 26



a = 45  
b = 25

Nominal sensing distance (S <sub>n</sub> )	2 mm	Increased range model 4 mm	2 mm	Increased range model 4 mm
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## References

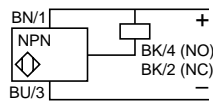
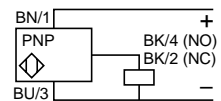
3-wire $\overline{\text{---}}$	PNP	NO	<b>XS1-N12PA340</b>	<b>XS1-N12PA349</b>	<b>XS1-N12PA340D</b>	<b>XS1-N12PA349D</b>
	NPN	NO	<b>XS1-N12NA340</b>	<b>XS1-N12NA349</b>	<b>XS1-N12NA340D</b>	<b>XS1-N12NA349D</b>
4-wire $\overline{\text{---}}$ (complementary outputs)	PNP	NO + NC	<b>XS1-N12PC410</b>	–	<b>XS1-N12PC410D</b>	–
Weight (kg)			0.070	0.070	0.020	0.020

## Characteristics

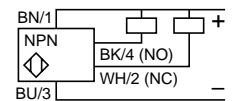
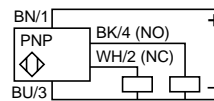
Connection	Pre-cabled, 3 x 0.34 mm <sup>2</sup> or 4 x 0.22 mm <sup>2</sup> , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)	Connector (types 9, 10, 11, 12, 15, 16) (2)
Degree of protection	IP 67		Depending on connector (see pages 3/58 and 3/59)	
Operating temperature	- 25...+ 70 °C	- 25...+ 50 °C	- 25...+ 70 °C	- 25...+ 50 °C
Output state indication	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)	$\overline{\text{---}}$ 10...38 V ( $\sim$ 24 V rectified and filtered)			
Switching capacity	<b>0...200 mA with overload and short-circuit protection</b>			
Voltage drop, closed state	$\leq$ 2 V	$\leq$ 2.6 V	$\leq$ 2 V	$\leq$ 2.6 V
Current consumption, no-load	$\leq$ 10 mA			
Maximum switching frequency	5000 Hz	300 Hz	5000 Hz	300 Hz

## Wiring schemes

3-wire  $\overline{\text{---}}$ , NO output  
**XS1/XS2-N12●●340/340D/349/349D**



4-wire  $\overline{\text{---}}$ , NO + NC output  
**XS1-N12●●410/410D**



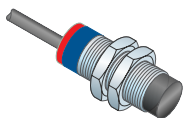
(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.090 kg
10 m	<b>L2</b>	0.240 kg

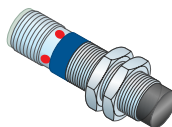
Example : sensor **XS1-N12PA340** with 5 m cable becomes **XS1-N12PA340L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

Non flush mountable in metal



a = 33  
b = 21  
c = 5



a = 45  
b = 20  
c = 5

4 mm

4 mm

XS2-N12PA340	XS2-N12PA340D
XS2-N12NA340	XS2-N12NA340D
-	-
0.070	0.020

Pre-cabled, 3 x 0.34 mm <sup>2</sup> or 4 x 0.22 mm <sup>2</sup> , length 2 m (1)	Connector (types 9, 10, 15, 16) (2)
IP 67	Depending on connector (see pages 3/58 and 3/59)
- 25...+ 70 °C	
LED, annular	LED, 4 viewing ports at 90°
≡ 10...38 V (≈ 24 V rectified and filtered)	
<b>0...200 mA with overload and short-circuit protection</b>	
≤ 2 V	
≤ 10 mA	
5000 Hz	

3

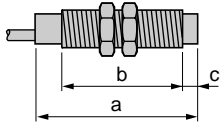
# Inductive proximity sensors

Cylindrical type, M12 x 1 threaded  
Metal case (brass), form A  
d.c. supply

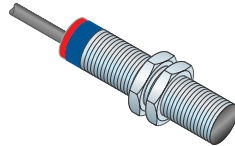
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

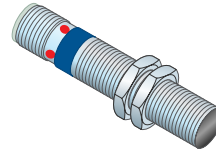
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 50  
b = 42



a = 61  
b = 40

Nominal sensing distance (S <sub>n</sub> )	2 mm	2 mm	2 mm	2 mm
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## References

3-wire ---	PNP	NO	XS1-M12PA370	–	XS1-M12PA370D	–
	NPN	NO	XS1-M12NA370	–	XS1-M12NA370D	–
4-wire --- universal model	PNP/NPN programmable	NO/NC	–	XS1-M12KP340	–	XS1-M12KP340D
Weight (kg)			0.075	0.075	0.025	0.025

## Characteristics

Connection	Pre-cabled, 3 x 0.34 mm <sup>2</sup> , length 2 m (1)			
Degree of protection	IP 68		Depending on connector (see pages 3/58 and 3/59)	
Operating temperature	- 25...+ 80 °C			
Output state indication	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)	--- 10...58 V (3)	--- 10...38 V (4)	--- 10...58 V (3)	--- 10...38 V (4)
Switching capacity	0...200 mA with overload and short-circuit protection			
Voltage drop, closed state	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
Current consumption, no-load	≤ 10 mA			
Maximum switching frequency	5000 Hz			

## Wiring schemes

3-wire ---, NO output  
XS1/XS2-M12●●370/370D



4-wire --- programmable, NO or NC output  
XS1/XS2-M12KP340/340D



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	L1	0.090 kg
10 m	L2	0.240 kg

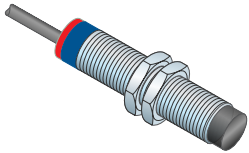
Example : sensor XS1-M12PA370 with 5 m cable becomes XS1-M12PA370L1

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

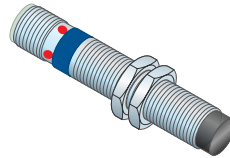
(3) Can be supplied with rectified ~ 24 V.

(4) ~ 24 V rectified and filtered.

Non flush mountable in metal



a = 50  
b = 37  
c = 5



a = 61  
b = 35  
c = 5

4 mm	4 mm	4 mm	4 mm
------	------	------	------

XS2-M12PA370	–	XS2-M12PA370D	–
XS2-M12NA370	–	XS2-M12NA370D	–
–	XS2-M12KP340	–	XS2-M12KP340D
0.075	0.075	0.025	0.075

<b>Pre-cabled, 3 x 0.34 mm<sup>2</sup>, length 2 m (1)</b>		<b>Connector (types 9, 10, 15, 16) (2)</b>	
IP 68		Depending on connector (see pages 3/58 and 3/59)	
- 25...+ 80 °C			
LED, annular		LED, 4 viewing ports at 90°	
≡ 10...58 V (3)	≡ 10...38 V (4)	≡ 10...58 V (3)	≡ 10...38 V (4)
<b>0...200 mA with overload and short-circuit protection</b>			
≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
≤ 10 mA			
5000 Hz			

3

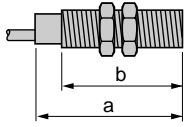
# Inductive proximity sensors

Cylindrical type, M12 x 1 threaded  
Metal case (brass), form A  
d.c. supply (continued)

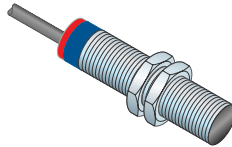
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

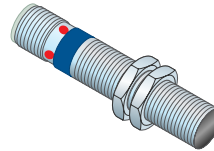
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 50  
b = 42



a = 61  
b = 40

Nominal sensing distance (S <sub>n</sub> )	2 mm	2 mm
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## References

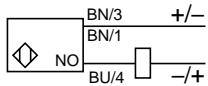
2-wire $\equiv$ (non polarised) Supply to :      Terminals 3-4      NO	<b>XS1-M12DA210</b>	<b>XS1-M12DA210D</b>
Terminals 1-2      NC	<b>XS1-M12DB210</b>	<b>XS1-M12DB210D</b>
Weight (kg)	0.075	0.025

## Characteristics

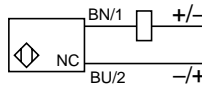
Connection	Pre-cabled, 2 x 0.34 mm <sup>2</sup> , length 2 m (1)	Connector (types 9, 10, 15, 16) (2)
Degree of protection	IP 68	Depending on connector (see pages 3/58 and 3/59)
Operating temperature	- 25...+ 80 °C	
Output state indication	LED, annular	LED, 4 viewing ports at 90°
Voltage limits (including ripple)	$\equiv$ 10...58 V	
Switching capacity	1.5...100 mA with overload and short-circuit protection	
Voltage drop, closed state	≤ 5.2 V	
Current consumption, no-load	-	
Maximum switching frequency	800 Hz	

## Wiring schemes

2-wire  $\equiv$  non polarised, NO or NC output  
**XS1-M12DA210/DA210D**



**XS1-M12DB210/210D/210LD**



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.090 kg
10 m	<b>L2</b>	0.240 kg

Example : sensor **XS1-M12DA210** with 5 m cable becomes **XS1-M12DA210L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

# Inductive proximity sensors

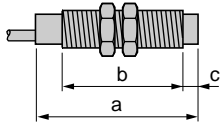
Cylindrical type, M12 x 1 threaded  
Metal case (brass), form A  
a.c. or d.c. supply

Accessories :  
page 3/59

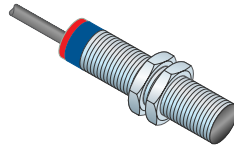
References, characteristics, dimensions, schemes

Flush mountable in metal

Non flush mountable in metal

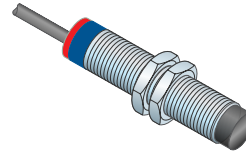


Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 50  
b = 42

AC/DC



a = 50  
b = 37

c = 5  
AC/DC

Nominal sensing distance (S<sub>n</sub>)

2 mm

4 mm

## References

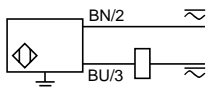
2-wire ~ or ---	NO	<b>XS1-M12MA230</b>	<b>XS2-M12MA230</b>
	NC	<b>XS1-M12MB230</b>	<b>XS2-M12MB230</b>
2-wire ~ or --- (protected against short-circuits)	NO	<b>XS1-M12MA250</b>	<b>XS2-M12MA250</b>
	NC	<b>XS1-M12MB250</b>	<b>XS2-M12MB250</b>
Weight (kg)		0.075	0.075

## Characteristics

Connection	Pre-cabled, 2 x 0.34 mm <sup>2</sup> , L = 2 m (1)
Degree of protection	IP 68
Operating temperature	- 25...+ 80 °C
Output state indication	LED, annular
Voltage limits (including ripple)	~ or --- 20...264 V
Switching capacity	5...200 mA (3)
Voltage drop, closed state	≤ 5.5 V
Current consumption, no-load	–
Maximum switching frequency	(~) 25 Hz or (---) 350 Hz

## Wiring schemes

2-wire ~ or ---, NO or NC output  
**XS1/XS2-M12●●230/250**



⊥ For connector version sensors

(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.075 kg
10 m	<b>L2</b>	0.200 kg

Example : sensor **XS1-M12MA230** with 5 m cable becomes **XS1-M12MA230L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

(3) For the sensors not incorporating overload or short-circuit protection, it is recommended that a 0.8 A "quick-blow" fuse be connected in series with the load.



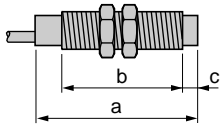
# Inductive proximity sensors

Cylindrical type, M18 x 1 threaded  
Metal case (brass), short  
d.c. supply

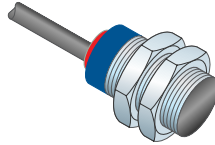
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

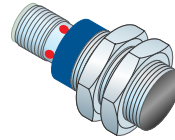
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 33.5  
b = 26



a = 45  
b = 26

Nominal sensing distance (S <sub>n</sub> )	5 mm	Increased range model 10 mm	5 mm	Increased range model 10 mm
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## References

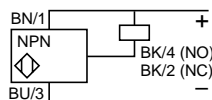
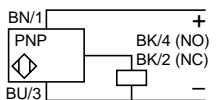
3-wire ---	PNP	NO	<b>XS1-N18PA340</b>	<b>XS1-N18PA349</b>	<b>XS1-N18PA340D</b>	<b>XS1-N18PA349D</b>
	NPN	NO	<b>XS1-N18NA340</b>	<b>XS1-N18NA349</b>	<b>XS1-N18NA340D</b>	<b>XS1-N18NA349D</b>
4-wire --- (complementary outputs)	PNP	NO + NC	<b>XS1-N18PC410</b>	–	<b>XS1-N18PC410D</b>	–
	NPN	NO + NC	<b>XS1-N18NC410</b>	–	<b>XS1-N18NC410D</b>	–
Weight (kg)			0.100	0.100	0.040	0.040

## Characteristics

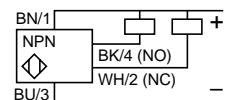
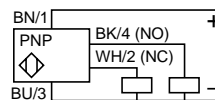
Connection	Pre-cabled, 3 x 0.34 mm <sup>2</sup> or 4 x 0.34 mm <sup>2</sup> , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)	Connector (types 9, 10, 11, 12, 15, 16) (2)
Degree of protection	IP 67		Depending on connector (see pages 3/58 and 3/59)	
Operating temperature	- 25...+ 70 °C	- 25...+ 50 °C	- 25...+ 70 °C	- 25...+ 50 °C
Output state indication	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)	--- 10...38 V (~ 24 V rectified and filtered)			
Switching capacity	<b>0...200 mA with overload and short-circuit protection</b>			
Voltage drop, closed state	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
Current consumption, no-load	≤ 10 mA			
Maximum switching frequency	2000 Hz	60 Hz	2000 Hz	60 Hz

## Wiring schemes

3-wire ---, NO output  
**XS1/XS2-N18●●340/340D/349/349D**



4-wire ---, NO + NC output  
**XS1/XS2-N18●●410/410D**



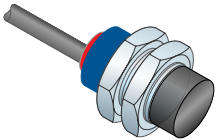
(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

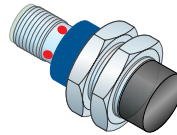
Example : sensor **XS1-N18PA340** with 5 m cable becomes **XS1-N18PA340L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

Non flush mountable in metal



a = 33.5  
b = 18  
c = 8



a = 45  
b = 18  
c = 8

8 mm	8 mm
------	------

<b>XS2-N18PA340</b>	<b>XS2-N18PA340D</b>
<b>XS2-N18NA340</b>	<b>XS2-N18NA340D</b>
-	-
-	-
0.100	0.030

<b>Pre-cabled, 3 x 0.34 mm<sup>2</sup> or 4 x 0.34 mm<sup>2</sup>, length 2 m (1)</b>	<b>Connector (types 9, 10, 15, 16) (2)</b>
IP 67	Depending on connector (see pages 3/58 and 3/59)
- 25...+ 70 °C	
LED, annular	LED, 4 viewing ports at 90°
⎓ 10...38 V (~ 24 V rectified and filtered)	
<b>0...200 mA with overload and short-circuit protection</b>	
≤ 2 V	
≤ 10 mA	
2000 Hz	

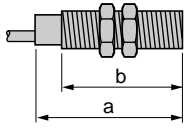
# Inductive proximity sensors

Cylindrical type, M18 x 1 threaded  
Metal case (brass), form A  
d.c. supply

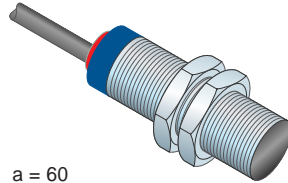
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

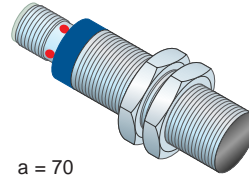
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 60  
b = 51.5



a = 70  
b = 51.5

Nominal sensing distance (Sn)	5 mm	5 mm	5 mm	5 mm
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## References

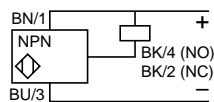
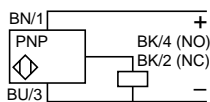
3-wire ---	PNP	NO	<b>XS1-M18PA370</b>	–	<b>XS1-M18PA370D</b>	–
	NPN	NO	<b>XS1-M18NA370</b>	–	<b>XS1-M18NA370D</b>	–
4-wire --- universal model	PNP/NPN programmable	NO/NC	–	<b>XS1-M18KP340</b>	–	<b>XS1-M18KP340D</b>
Weight (kg)			0.120	0.120	0.060	0.060

## Characteristics

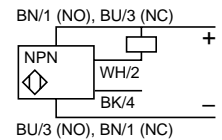
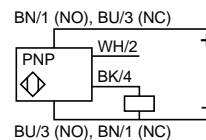
Connection	Pre-cabled, 3 x 0.34 mm <sup>2</sup> , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)	
Degree of protection	IP 68		Depending on connector (see pages 3/58 and 3/59)	
Operating temperature	- 25...+ 80 °C			
Output state indication	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)	--- 10...58 V (3)	--- 10...38 V (4)	--- 10...58 V (3)	--- 10...38 V (4)
Switching capacity	0...200 mA with overload and short-circuit protection			
Voltage drop, closed state	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
Current consumption, no-load	≤ 10 mA			
Maximum switching frequency	2000 Hz			

## Wiring schemes

3-wire ---, NO output  
**XS1-M18●●370/370D**



4-wire --- programmable, NO or NC output  
**XS1-M18KP340/340D**



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

Example : sensor **XS1-M18PA370** with 5 m cable becomes **XS1-M18PA370L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

(3) Can be supplied with rectified ~ 24 V.

(4) ~ 24 V rectified and filtered.

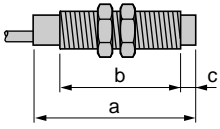
# Inductive proximity sensors

Cylindrical type, M18 x 1 threaded  
Metal case (brass), form A  
d.c. supply (continued)

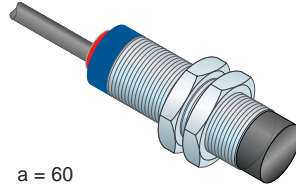
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

## Non flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 60  
b = 43.5  
c = 8

Nominal sensing distance (S <sub>n</sub> )	8 mm	8 mm
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## References

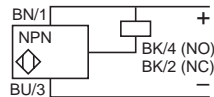
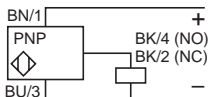
3-wire ---	PNP NO	<b>XS2-M18PA370</b>	-
	NPN NO	<b>XS2-M18NA370</b>	-
4-wire --- universal model	PNP/NPN NO/NC programmable	-	<b>XS2-M18KP340</b>
Weight (kg)		0.120	0.120

## Characteristics

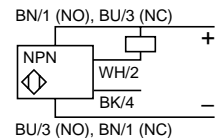
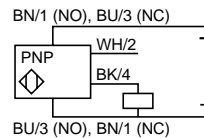
Connection	Pre-cabled, 3 x 0.34 mm <sup>2</sup> , length 2 m (1)	
Degree of protection	IP 68	
Operating temperature	- 25...+ 80 °C	
Output state indication	LED, annular	
Voltage limits (including ripple)	--- 10...58 V (2)	--- 10...38 V (3)
Switching capacity	0...200 mA with overload and short-circuit protection	
Voltage drop, closed state	≤ 2 V	≤ 2.6 V
Current consumption, no-load	≤ 10 mA	
Maximum switching frequency	2000 Hz	

## Wiring schemes

3-wire ---, NO output  
**XS2-M18●●370**



4-wire --- programmable, NO or NC output  
**XS2-M18KP340**



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

Example : sensor **XS2-M18PA370** with 5 m cable becomes **XS2-M18PA370L1**

(2) Can be supplied with rectified ~ 24 V.

(3) ~ 24 V rectified and filtered.

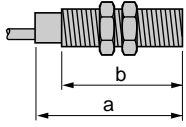
# Inductive proximity sensors

Cylindrical type, M18 x 1 threaded  
Metal case (brass), form A  
d.c. supply (continued)

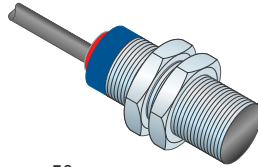
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

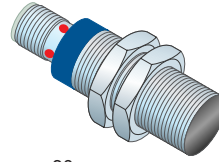
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 50  
b = 42



a = 60  
b = 42

Nominal sensing distance (S <sub>n</sub> )	5 mm	5 mm
--	------	------

## References

2-wire $\equiv$ (non polarised) Supply to :	Terminals 3-4 NO	<b>XS1-M18DA210</b>	<b>XS1-M18DA210D</b>
	Terminals 1-2 NC	<b>XS1-M18DB210</b>	–
Weight (kg)		0.120	0.060

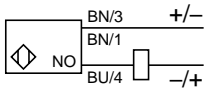
## Characteristics

Connection	Pre-cabled, 2 x 0.5 mm <sup>2</sup> , length 2 m (1)	Connector (types 9, 10, 15, 16) (2)
Degree of protection	IP 68	Depending on connector (see pages 3/58 and 3/59)
Operating temperature	- 25...+ 80 °C	
Output state indication	LED, annular	LED, 4 viewing ports at 90°
Voltage limits (including ripple)	$\equiv$ 10...58 V	
Switching capacity	1.5...100 mA with overload and short-circuit protection	
Voltage drop, closed state	≤ 5.2 V	
Current consumption, no-load	–	
Maximum switching frequency	350 Hz	

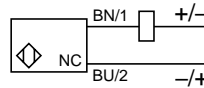
## Wiring schemes

2-wire  $\equiv$ , non polarised, NO or NC output

**XS1-M18DA210/DA210D**



**XS1-M18DB210**



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

Example : sensor **XS1-M18DA210** with 5 m cable becomes **XS1-M18DA210L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

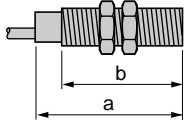
# Inductive proximity sensors

Cylindrical type, M18 x 1 threaded  
Metal case (brass), form A  
a.c. or d.c. supply

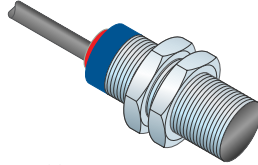
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 60  
b = 51.5

AC/DC

Nominal sensing distance (S<sub>n</sub>)

5 mm

## References

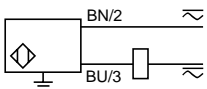
2-wire ~ or ---	NO	<b>XS1-M18MA230</b>
	NC	<b>XS1-M18MB230</b>
2-wire ~ or --- (protected against short-circuits)	NO	<b>XS1-M18MA250</b>
	NC	<b>XS1-M18MB250</b>
Weight (kg)		0.120

## Characteristics

Connection	Pre-cabled, 2 x 0.5 mm <sup>2</sup> , length 2 m (1)
Degree of protection	IP 68
Operating temperature	- 25...+ 80 °C
Output state indication	non protected model LED, annular
	protected model 1 red LED (output state), 1 green LED (supply and short-circuit indication)
Voltage limits (including ripple)	~ or --- 20...264 V
Switching capacity	(~) 5...300 mA or (---) 5...200 mA (2)
Voltage drop, closed state	≤ 5.5 V
Current consumption, no-load	–
Maximum switching frequency	(~) 25 Hz or (---) 200 Hz

## Wiring schemes

2-wire ~ or ---, NO or NC output  
**XS1-M18M●230/250**



⊥ For connector version sensors

(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

Example : sensor **XS1-M18MA230** with 5 m cable becomes **XS1-M18MA230L1**

(2) For the sensors not incorporating overload or short-circuit protection, it is recommended that a 0.8 A "quick-blow" fuse be connected in series with the load.

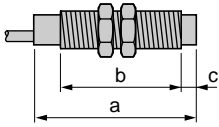
# Inductive proximity sensors

Cylindrical type, M30 x 1.5 threaded  
Metal case (brass), short  
d.c. supply

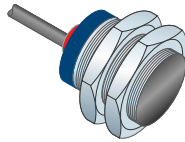
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

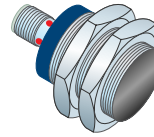
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 40.5  
b = 32



a = 50  
b = 30

Nominal sensing distance (S <sub>n</sub> )	10 mm	Increased range model 20 mm	10 mm	Increased range model 20 mm
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## References

3-wire ---	PNP	NO	XS1-N30PA340	XS1-N30PA349	XS1-N30PA340D	XS1-N30PA349D
	NPN	NO	XS1-N30NA340	XS1-N30NA349	XS1-N30NA340D	XS1-N30NA349D
Weight (kg)			0.160	0.160	0.100	0.100

## Characteristics

Connection	Pre-cabled, 3 or 4 x 0.34 mm <sup>2</sup> , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)		Connector (types 9, 10, 11/12, 15, 16) (2)	
Degree of protection	IP 67		Depending on connector (see pages 3/58 and 3/59)			
Operating temperature	- 25...+ 70 °C	- 25...+ 50 °C	- 25...+ 70 °C	- 25...+ 50 °C		
Output state indication	LED, annular		LED, 4 viewing ports at 90°			
Voltage limits (including ripple)	--- 10...38 V (~ 24 V rectified and filtered)					
Switching capacity	0...200 mA with overload and short-circuit protection					
Voltage drop, closed state	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V		
Current consumption, no-load	≤ 10 mA					
Maximum switching frequency	1000 Hz	15 Hz	1000 Hz	15 Hz		

## Wiring schemes

3-wire ---, NO output  
XS1/XS2-N30●340/340D/349/349D



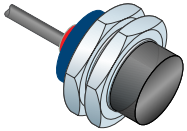
(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	L1	0.120 kg
10 m	L2	0.320 kg

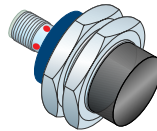
Example : sensor XS1-N30PA340 with 5 m cable becomes XS1-N30PA340L1

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

Non flush mountable in metal



a = 40.5  
b = 19  
c = 13



a = 50  
b = 19  
c = 13

15 mm	15 mm
-------	-------

XS2-N30PA340	XS2-N30PA340D
XS2-N30NA340	XS2-N30NA340D
0.160	0.100

<b>Pre-cabled, 3 or 4 x 0.34 mm<sup>2</sup>, length 2 m (1)</b>	<b>Connector (types 9, 10, 15, 16) (2)</b>
IP 67	Depending on connector (see pages 3/58 and 3/59)
- 25...+ 70 °C	
LED, annular	LED, 4 viewing ports at 90°
⎓ 10...38 V (~ 24 V rectified and filtered)	
<b>0...200 mA with overload and short-circuit protection</b>	
≤ 2 V	
≤ 10 mA	
1000 Hz	

3



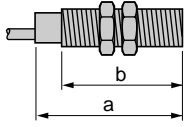
# Inductive proximity sensors

Cylindrical type, M30 x 1.5 threaded  
Metal case (brass), form A  
d.c. supply

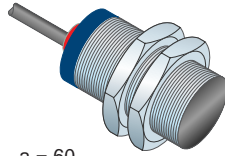
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

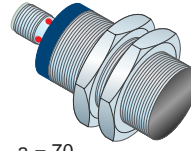
## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 60  
b = 51.5



a = 70  
b = 51.5

Nominal sensing distance (Sn)	10 mm	10 mm	10 mm	10 mm
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## References

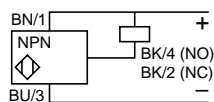
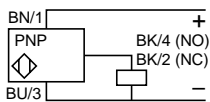
3-wire ---	PNP	NO	<b>XS1-M30PA370</b>	–	<b>XS1-M30PA370D</b>	–
	NPN	NO	<b>XS1-M30NA370</b>	–	<b>XS1-M30NA370D</b>	–
4-wire --- universal model	PNP/NPN programmable	NO/NC	–	<b>XS1-M30KP340</b>	–	<b>XS1-M30KP340D</b>
Weight (kg)			0.205	0.205	0.145	0.145

## Characteristics

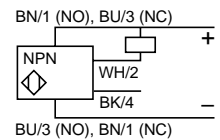
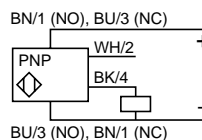
Connection	Pre-cabled, 3 x 0.34 mm <sup>2</sup> , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)	
Degree of protection	IP 68		Depending on connector (see pages 3/58 and 3/59)	
Operating temperature	- 25...+ 80 °C			
Output state indication	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)	--- 10...58 V (3)	--- 10...38 V (4)	--- 10...58 V (3)	--- 10...38 V (4)
Switching capacity	0...200 mA with overload and short-circuit protection			
Voltage drop, closed state	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
Current consumption, no-load	≤ 10 mA			
Maximum switching frequency	1000 Hz			

## Wiring schemes

3-wire ---, NO output  
**XS1-M30●●370/370D**



4-wire --- programmable, NO or NC output  
**XS1-M30KP340/340D**



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

Example : sensor **XS1-M30PA370** with 5 m cable becomes **XS1-M30PA370L1**

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

(3) Can be supplied with rectified ~ 24 V.

(4) ~ 24 V rectified and filtered.

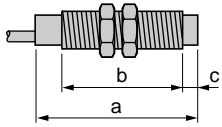
# Inductive proximity sensors

Cylindrical type, M30 x 1.5 threaded  
Metal case (brass), form A  
d.c. supply (continued)

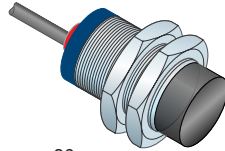
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

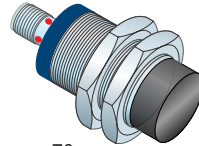
## Non flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 60  
b = 38.5  
c = 13



a = 70  
b = 38.5  
c = 13

Nominal sensing distance (S <sub>n</sub> )	15 mm	15 mm	15 mm	15 mm
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## References

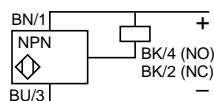
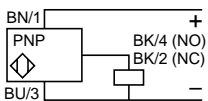
3-wire ---	PNP	NO	XS2-M30PA370	–	XS2-M30PA370D	–
	NPN	NO	XS2-M30NA370	–	XS2-M30NA370D	–
4-wire --- universal model	PNP/NPN programmable	NO/NC	–	XS2-M30KP340	–	XS2-M30KP340D
Weight (kg)			0.205	0.205	0.145	0.145

## Characteristics

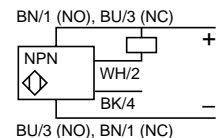
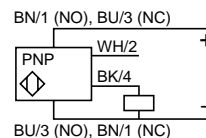
Connection	Pre-cabled, 3 x 0.34 mm <sup>2</sup> , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)	
Degree of protection	IP 68		Depending on connector (see pages 3/58 and 3/59)	
Operating temperature	- 25...+ 80 °C			
Output state indication	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)	--- 10...58 V (3)	--- 10...38 V (4)	--- 10...58 V (3)	--- 10...38 V (4)
Switching capacity	0...200 mA with overload and short-circuit protection			
Voltage drop, closed state	≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
Current consumption, no-load	≤ 10 mA			
Maximum switching frequency	1000 Hz			

## Wiring schemes

3-wire ---, NO output  
XS2-M30●●370/370D



4-wire --- programmable, NO or NC output  
XS2-M30KP340/340D



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	L1	0.120 kg
10 m	L2	0.320 kg

Example : sensor XS2-M30PA370 with 5 m cable becomes XS2-M30PA370L1

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/58 and 3/59.

(3) Can be supplied with rectified ~ 24 V.

(4) ~ 24 V rectified and filtered.

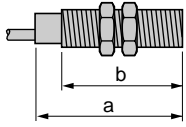
# Inductive proximity sensors

Cylindrical type, M30 x 1.5 threaded  
Metal case (brass), form A  
a.c. or d.c. supply

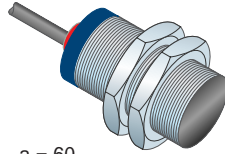
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 60  
b = 51.5

AC/DC

Nominal sensing distance (S<sub>n</sub>)

10 mm

## References

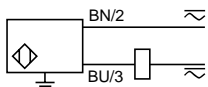
2-wire ~ or ---	NO	<b>XS1-M30MA230</b>
	NC	<b>XS1-M30MB230</b>
2-wire ~ or --- (protected against short-circuits)	NO	<b>XS1-M30MA250</b>
	NC	<b>XS1-M30MB250</b>
Weight (kg)		0.205

## Characteristics

Connection	Pre-cabled, 2 x 0.5 mm <sup>2</sup> , length 2 m (1)	
Degree of protection	IP 68	
Operating temperature	- 25...+ 80 °C	
Output state indication	non protected model	LED, annular
	protected model	1 red LED (output state), 1 green LED (supply and short-circuit indication)
Voltage limits (including ripple)	~ or --- 20...264 V	
Switching capacity	(~) 5...300 mA or (---) 5...200 mA (2)	
Voltage drop, closed state	≤ 5.5 V	
Current consumption, no-load	–	
Maximum switching frequency	(~) 25 Hz or (---) 100 Hz	

## Wiring schemes

2-wire ~ or ---, NO or NC output  
**XS1-M30M●230/250**



⏏ For connector version sensors

(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

Example : sensor **XS1-M30MA230** with 5 m cable becomes **XS1-M30MA230L1**

(2) For the sensors not incorporating overload or short-circuit protection, it is recommended that a 0.8 A "quick-blow" fuse be connected in series with the load.

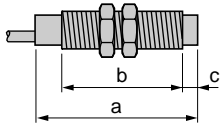
# Inductive proximity sensors

Cylindrical type, M30 x 1.5 threaded  
Metal case (brass), form A  
a.c. or d.c. supply (continued)

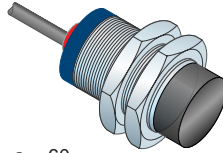
Accessories :  
page 3/59

References, characteristics, dimensions, schemes

## Non flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section  
c = For non flush mounting sensors



a = 60  
b = 38.5  
c = 13  
**AC/DC**

<b>Nominal sensing distance (S<sub>n</sub>)</b>	<b>15 mm</b>
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## References

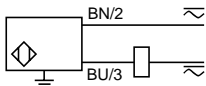
2-wire ~ or ---	NO	<b>XS2-M30MA230</b>
	NC	<b>XS2-M30MB230</b>
2-wire ~ or --- (protected against short-circuits)	NO	<b>XS2-M30MA250</b>
	NC	<b>XS2-M30MB250</b>
Weight (kg)	0.205	

## Characteristics

<b>Connection</b>	<b>Pre-cabled, 2 x 0.5 mm<sup>2</sup>, L = 2 m (1)</b>						
<b>Degree of protection</b>	IP 68						
<b>Operating temperature</b>	- 25...+ 80 °C						
<b>Output state indication</b>	<table border="0"> <tr> <td>non protected model</td> <td>LED, annular</td> </tr> <tr> <td></td> <td>1 red LED (output state)</td> </tr> <tr> <td>protected model</td> <td>1 green LED (supply and short-circuit indication)</td> </tr> </table>	non protected model	LED, annular		1 red LED (output state)	protected model	1 green LED (supply and short-circuit indication)
non protected model	LED, annular						
	1 red LED (output state)						
protected model	1 green LED (supply and short-circuit indication)						
<b>Voltage limits</b> (including ripple)	~ or --- 20...264 V						
<b>Switching capacity</b>	(~) 5...300 mA or (---) 5...200 mA (2)						
<b>Voltage drop, closed state</b>	≤ 5.5 V						
<b>Current consumption, no-load</b>	–						
<b>Maximum switching frequency</b>	(~) 25 Hz or (---) 75 Hz						

## Wiring schemes

2-wire ~ or ---, NO or NC output  
**XS2-M30●●2●0**



⊥ For connector version sensors

(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L1</b>	0.120 kg
10 m	<b>L2</b>	0.320 kg

Example : sensor **XS2-M30MA230** with 5 m cable becomes **XS2-M30MA230L1**

(2) For the sensors not incorporating overload or short-circuit protection, it is recommended that a 0.8 A "quick-blow" fuse be connected in series with the load.

# Inductive proximity sensors

Compact block (12 x 26 x 40 mm), plastic, type XSG  
a.c. or d.c. supply

References, characteristics, schemes

Accessories :  
page 3/59

	Flush mountable in metal	Non flush mountable in metal
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Nominal sensing distance (S <sub>n</sub> )	2 mm	4 mm
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## References

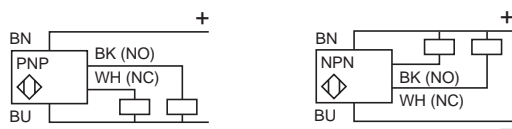
4-wire --- (complementary outputs)	PNP	NO + NC	<b>XSG-H027330</b>	<b>XSG-H047330</b>
	NPN	NO + NC	<b>XSG-J027330</b>	<b>XSG-J047330</b>
Weight (kg)			0.180	0.180

## Characteristics

Connection	Pre-cabled, length 2 m (1) 4 x 0.34 mm <sup>2</sup>	
Degree of protection	IP 65	
Operating temperature	- 25...+ 70 °C	
Output state indication	LED, at rear	
Voltage limits (including ripple)	--- 10...58 V	
Switching capacity	0...200 mA (2)	
Voltage drop, closed state	≤ 1.8 V	
Current consumption, no-load	≤ 10 mA	
Maximum switching frequency	1000 Hz	800 Hz

## Wiring schemes

4-wire ---  
NO + NC output



(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	<b>L05</b>	0.120 kg
10 m	<b>L10</b>	0.320 kg

Example : sensor **XSG-H027330** with 5 m cable becomes **XSG-H027330L05**

(2) With overload and short-circuit protection.

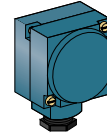
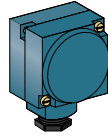
# Inductive proximity sensors

Plug-in compact block (41 x 50 x 76 mm), plastic, type XSB  
a.c. or d.c. supply

References, characteristics, schemes

Accessories :  
page 3/59

Non flush mountable in metal



	DC	AC
<b>Nominal sensing distance (S<sub>n</sub>)</b>	<b>25 mm</b>	<b>25 mm</b>

## References

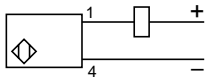
2-wire $\overline{\sim}$	NO	<b>XSB-C25710</b>	–
2-wire $\sim$	NO	–	<b>XSB-A25911</b>
	NC	–	<b>XSB-A25921</b>
Weight (kg)	0.190	0.190	

## Characteristics

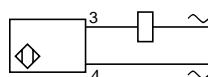
<b>Connection</b>	<b>Screw terminals, capacity : 2 x 1.5 mm<sup>2</sup></b>	
<b>Degree of protection</b>	IP 67	
<b>Operating temperature</b>	- 25... + 70 °C	
<b>Output state indication</b>	–	LED
<b>Voltage limits (including ripple)</b>	$\overline{\sim}$ 12...58 V	$\sim$ 93...264 V
<b>Switching capacity (1)</b>	<b>1.5...80 mA</b>	<b>20...150 mA</b>
<b>Voltage drop, closed state</b>	≤ 7 V	≤ 9.5 V
<b>Current consumption, no-load</b>	–	–
<b>Maximum switching frequency</b>	250 Hz	40 Hz

## Wiring schemes

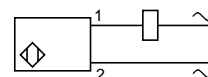
2-wire  $\overline{\sim}$   
NO output



2-wire  $\sim$   
NO output



NC output



(1) For XSB-A ( $\sim$ ) sensors, not incorporating overload or short-circuit protection, it is recommended that a 0.63 A "quick-blow" fuse be connected in series with the load.

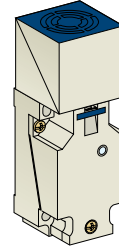
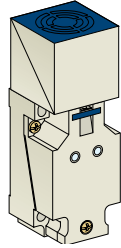
# Inductive proximity sensors

Plug-in block form C (41 x 40 x 117 mm), plastic, type XS7  
5 position turret head  
d.c. supply

Accessories :  
page 3/59

References, characteristics, schemes

Flush mountable in metal



Nominal sensing distance (S <sub>n</sub> )	15 mm	Increased range model 20 mm	15 mm
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## References

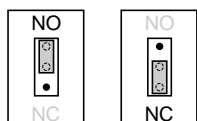
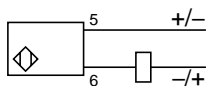
4-wire $\overline{\text{---}}$ (complementary outputs)	PNP	NO + NC	<b>XS7-C40PC440H29</b>	<b>XS7-C40PC449H29</b>	–
	NPN	NO + NC	<b>XS7-C40NC440H29</b>	<b>XS7-C40NC449H29</b>	–
2-wire $\overline{\text{---}}$ (non polarised)	NO		–	–	<b>XS7-C40DA210H29</b>
	NO or NC programmable		–	–	<b>XS7-C40DP210H29</b>
Weight (kg)			0.220	0.220	0.220

## Characteristics

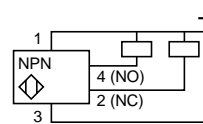
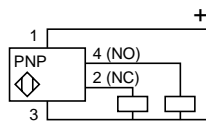
Connection	Screw terminals, capacity : 2 or 4 x 1.5 mm <sup>2</sup>	
Degree of protection	IP 67	
Operating temperature	- 25...+ 70 °C	
Supply/output state indication	Output LED + Supply LED	Output LED
Voltage limits (including ripple)	$\overline{\text{---}}$ 10...58 V	
Switching capacity (with overload and short-circuit protection)	0...200 mA	1.5...100 mA
Voltage drop, closed state	≤ 2 V	≤ 5.2 V
Current consumption, no-load	≤ 10 mA	–
Maximum switching frequency	1000 Hz	150 Hz

## Wiring schemes

2-wire  $\overline{\text{---}}$  (non polarised)  
NO or NC output  
depending on position of link



4-wire  $\overline{\text{---}}$   
NO + NC output



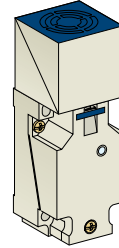
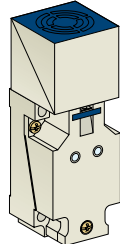
# Inductive proximity sensors

Plug-in block form C (41 x 40 x 117 mm), plastic, type XS8  
5 position turret head  
d.c. supply

Accessories :  
page 3/59

References, characteristics, schemes

Non flush mountable in metal



Nominal sensing distance (S <sub>n</sub> )	20 mm	Increased range model 40 mm	20 mm
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## References

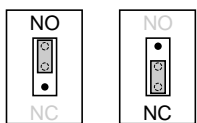
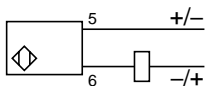
4-wire $\equiv$ (complementary outputs)	PNP	NO + NC	<b>XS8-C40PC440H29</b>	<b>XS8-C40PC449H29</b>	–
	NPN	NO + NC	<b>XS8-C40NC440H29</b>	<b>XS8-C40NC449H29</b>	–
2-wire $\equiv$ (non polarised)	NO or NC programmable		–	–	<b>XS8-C40DP210H29</b>
Weight (kg)			0.220	0.220	0.220

## Characteristics

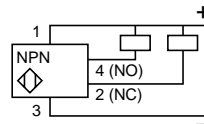
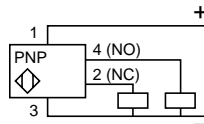
Connection	Screw terminals, capacity : 2 or 4 x 1.5 mm <sup>2</sup>		
Degree of protection	IP 67		
Operating temperature	- 25...+ 70 °C		
Supply/output state indication	Output LED + Supply LED		Output LED
Voltage limits (including ripple)	$\equiv$ 10...58 V		
Switching capacity (with overload and short-circuit protection)	0...200 mA		1.5...100 mA
Voltage drop, closed state	≤ 2 V		≤ 5.2 V
Current consumption, no-load	≤ 10 mA		–
Maximum switching frequency	1000 Hz	500 Hz	100 Hz

## Wiring schemes

2-wire  $\equiv$  (non polarised)  
NO or NC output  
depending on position of link



4-wire  $\equiv$   
NO + NC output



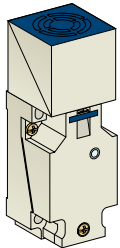
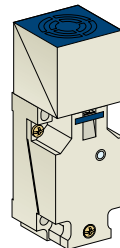


# Inductive proximity sensors

Plug-in block form C (41 x 40 x 117 mm), plastic, types XS7 and XS8  
5 position turret head  
a.c. or d.c. supply

Accessories :  
pages 3/59

References, characteristics, schemes

	Flush mountable in metal	Non flush mountable in metal
		
	AC	AC
	AC/DC	AC/DC
<b>Nominal sensing distance (S<sub>n</sub>)</b>	15 mm	20 mm

## References

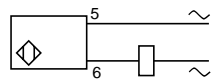
2-wire ~	NO/NC programmable	XS7-C40FP260H29	–	XS8-C40FP260H29	–
2-wire ~ or ≡ universal model	NO/NC programmable	–	XS7-C40MP230H29	–	XS8-C40MP230H29
Weight (kg)		0.220	0.220	0.220	0.220

## Characteristics

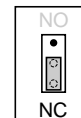
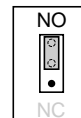
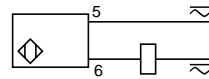
<b>Connection</b>	Screw terminals, capacity : 2 x 1.5 mm <sup>2</sup>			
<b>Degree of protection</b>	IP 67			
<b>Operating temperature</b>	- 25...+ 70 °C			
<b>Supply/output state indication</b>	Output LED			
<b>Voltage limits</b>	~ 20...264 V	~ or ≡ 20...264 V	~ 20...264 V	~ or ≡ 20...264 V
<b>Switching capacity</b>	5...500 mA (1)(2 A inrush)	~ 5...300 mA or ≡ 5...200 mA (1)	5...500 mA (1)(2 A inrush)	~ 5...300 mA or ≡ 5...200 mA (1)
<b>Voltage drop, open state</b>	≤ 5.5 V			
<b>Current consumption, no-load</b>	–			
<b>Maximum switching frequency</b>	25 Hz	~ 25 Hz, ≡ 50 Hz	25 Hz	~ 25 Hz, ≡ 50 Hz

## Wiring schemes

2-wire ~ programmable  
NO or NC output depending on position of link



2-wire ~ or ≡ programmable  
NO or NC output depending on position of link



(1) These sensors do not incorporate overload or short-circuit protection and therefore, it is recommended that a 0.8 A “quick-blow” fuse be connected in series with the load.

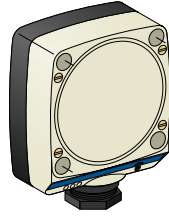
# Inductive proximity sensors

Plug-in block form D (40 x 80 x 100 mm), plastic, type XSD  
d.c. supply and a.c./d.c. supply

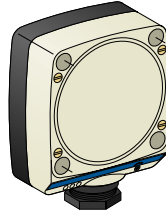
References, characteristics, schemes

Accessories :  
page 3/59

Non flush mountable in metal



DC



AC/DC

<b>Nominal sensing distance (S<sub>n</sub>)</b>	30...60 mm (1)
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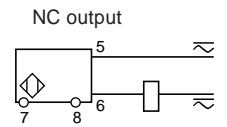
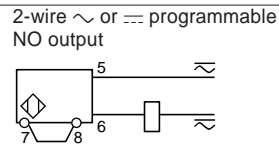
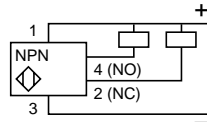
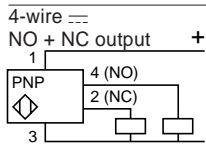
## References

4-wire $\overline{\text{---}}$ (complementary outputs)	PNP	NO + NC	XSD-H607339	–
2-wire $\sim$ or $\overline{\text{---}}$ universal model		NO or NC programmable	–	XSD-M600539
Weight (kg)			0.480	0.480

## Characteristics

<b>Connection</b>	Screw terminals, capacity : 2 x 1.5 mm <sup>2</sup>	
<b>Degree of protection</b>	IP 67	
<b>Operating temperature</b>	- 25...+ 70 °C	
<b>Supply/output state indication</b>	Output LED	Output LED + Supply LED + Short-circuit LED
<b>Voltage limits</b> (including ripple)	$\overline{\text{---}}$ 10...58 V	$\sim$ or $\overline{\text{---}}$ 20...264 V
<b>Switching capacity</b> (with overload and short-circuit protection)	0...200 mA	( $\overline{\text{---}}$ ) 5...100 mA or ( $\sim$ ) 5...500 mA
<b>Voltage drop, closed state</b>	≤ 1.8 V	≤ 6 V
<b>Current consumption, no-load</b>	≤ 10 mA	–
<b>Maximum switching frequency</b>	20 Hz	10 Hz

## Wiring schemes



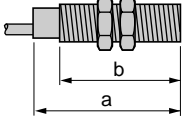
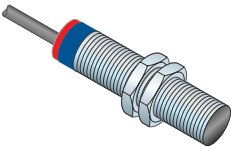
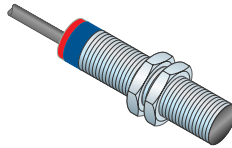
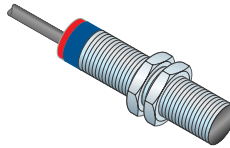
- (1) XSD-60 sensors incorporate a sensing distance adjustment potentiometer. This enables adjustment to suit the following requirements :
- limiting the effects of surrounding objects (by decreasing the sensing distance),
  - increasing the sensing distance up to 48 mm, using a standard mild steel target. Settings above 48 mm are not recommended.

# Inductive proximity sensors

Analogue output models  
Cylindrical type, M12 x 1 threaded, metal or plastic case  
Pre-cabled with 2 m cable

Accessories :  
page 3/59

References, characteristics, dimensions, schemes

	Flush mountable in metal	Non flush mountable in metal	
 <p>Lengths (mm) : a = Overall b = Threaded section</p>	 <p>a = 50 b = 42</p> <p><b>Metal case</b></p>	 <p>a = 50 b = 42</p> <p><b>Plastic case</b></p>	 <p>a = 50 b = 42</p> <p><b>Plastic case</b></p>
<b>Nominal sensing distance (S<sub>n</sub>)</b>	<b>0.2...2 mm</b>	<b>0.4...4 mm</b>	<b>0.4...4 mm</b>

## References

3-wire ---	Output	0...10 mA (1) 4...14 mA (2)	-	-	<b>XS4-P12AB110</b>
	Output	4...20 mA (2) 0...16 mA (1)	<b>XS1-M12AB120</b>	<b>XS4-P12AB120</b>	-
Weight (kg)		0.075	0.065	0.065	

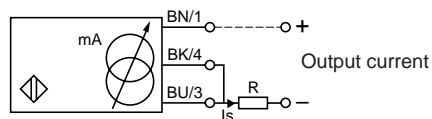
## Characteristics

<b>Connection</b>	<b>Pre-cabled, 3 x 0.34 mm<sup>2</sup>, length 2 m</b>		
<b>Degree of protection</b>	IP 67		
<b>Ambient air temperature</b>	Operation : - 25...+ 70 °C		
<b>Voltage limits</b> (including ripple)	--- 15...38 V	--- 15...38 V	--- 15...58 V
<b>Output current drift</b> θ ambient : - 25...+ 70 °C	≤ 10 %		
<b>Current consumption, no-load</b>	4 mA		

(1) Output current range for "3-wire" connection, see schemes below.  
(2) Output current range for "2-wire" connection, see schemes below.

## Wiring schemes

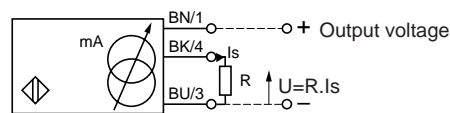
### 2-wire connection



Output current	Value of R (R = load impedance)
<b>24 V</b> 4...14 mA	≤ 640 Ω
4...20 mA	≤ 450 Ω
<b>48 V</b> 4...14 mA	≤ 2350 Ω

Ensure a minimum of 15 V between the + (1) and - (3) terminals of the sensor

### 3-wire connection



Output current	Value of R (R = load impedance)
<b>24 V</b> 0...10 mA	≤ 1800 Ω
0...16 mA	≤ 1125 Ω
<b>48 V</b> 0...10 mA	≤ 4200 Ω

Ensure a minimum of 5 V between the + and sensor output (terminal 4)

### Other versions

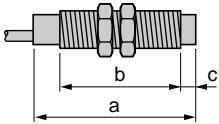
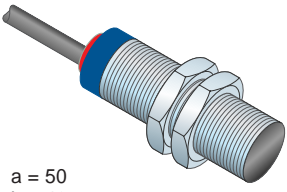
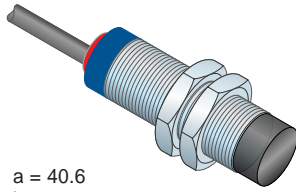
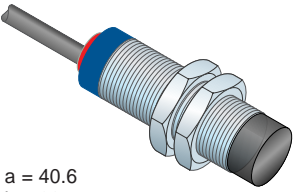
"Original equipment" range Ø 12 mm sensors with analogue output (XSP-H●●●62).  
Please consult your Regional customer centre.

# Inductive proximity sensors

Analogue output models  
Cylindrical type, M18 x 1 threaded, metal or plastic case  
Pre-cabled with 2 m cable

Accessories :  
page 3/59

References, characteristics, dimensions, schemes

	Flush mountable in metal	Non flush mountable in metal	
 <p>Lengths (mm) : a = Overall b = Threaded section c = For non flush mounting sensors</p>	 <p>a = 50 b = 42 c = 0 <b>Metal case</b></p>	 <p>a = 40.6 b = 26 c = 8 <b>Plastic case</b></p>	 <p>a = 40.6 b = 26 c = 8 <b>Plastic case</b></p>
<b>Nominal sensing distance (S<sub>n</sub>)</b>	<b>0.5...5 mm</b>	<b>0.8...8 mm</b>	<b>0.8...8 mm</b>

## References

3-wire ---	Output	0...10 mA (1) 4...14 mA (2)	-	-	<b>XS4-P18AB110</b>
	Output	4...20 mA (2) 0...16 mA (1)	<b>XS1-M18AB120</b>	<b>XS4-P18AB120</b>	-
Weight (kg)		0.120	0.080	0.080	

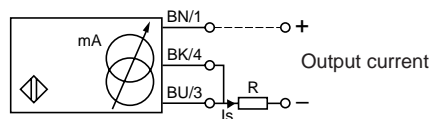
## Characteristics

<b>Connection</b>	<b>Pre-cabled, 3 x 0.34 mm<sup>2</sup>, length 2 m</b>
<b>Degree of protection</b>	IP 67
<b>Ambient air temperature</b>	Operation : - 25...+ 70 °C
<b>Voltage limits</b> (including ripple)	--- 15...38 V
<b>Output current drift</b> θ ambient : - 25...+ 70 °C	≤ 10 %
<b>Current consumption, no-load</b>	4 mA

1) Output current range for "3-wire" connection, see schemes below.  
2) Output current range for "2-wire" connection, see schemes below.

## Wiring schemes

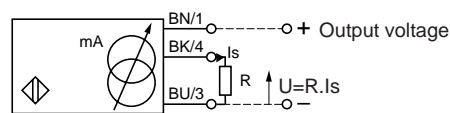
### 2-wire connection



Output current	Value of R (R = load impedance)
<b>24 V</b> 4...14 mA	≤ 640 Ω
4...20 mA	≤ 450 Ω
<b>48 V</b> 4...14 mA	≤ 2350 Ω

Ensure a minimum of 15 V between the + (1) and - (3) terminals of the sensor

### 3-wire connection



Output current	Value of R (R = load impedance)
<b>24 V</b> 0...10 mA	≤ 1800 Ω
0...16 mA	≤ 1125 Ω
<b>48 V</b> 0...10 mA	≤ 4200 Ω

Ensure a minimum of 5 V between the + and sensor output (terminal 4)

### Other versions

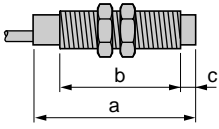
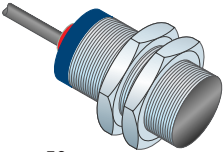
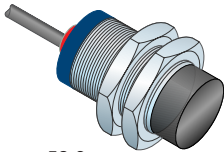
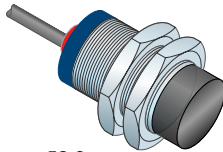
"Original equipment" range Ø 18 mm sensors with analogue output (XSP-H●●●62).  
Please consult your Regional customer centre.

# Inductive proximity sensors

Analogue output models  
Cylindrical type, M30 x 1.5 threaded, metal or plastic case  
Pre-cabled with 2 m cable

Accessories :  
page 3/59

References, characteristics, dimensions, schemes

	Flush mountable in metal	Non flush mountable in metal	
 <p>Lengths (mm) : a = Overall b = Threaded section c = For non flush mounting sensors</p>	 <p>a = 50 b = 42 c = 0 <b>Metal case</b></p>	 <p>a = 52.6 b = 32 c = 13 <b>Plastic case</b></p>	 <p>a = 52.6 b = 32 c = 13 <b>Plastic case</b></p>
<b>Nominal sensing distance (S<sub>n</sub>)</b>	<b>1...10 mm</b>	<b>1.5...15 mm</b>	<b>1.5...15 mm</b>

## References

3-wire ---	Output	0...10 mA (1) 4...14 mA (2)	-	-	<b>XS4-P30AB110</b>
	Output	4...20 mA (2) 0...16 mA (1)	<b>XS1-M30AB120</b>	<b>XS4-P30AB120</b>	-
Weight (kg)		0.200	0.100	0.100	

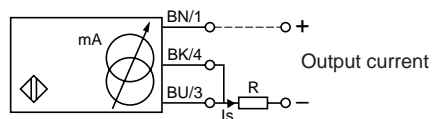
## Characteristics

<b>Connection</b>	<b>Pre-cabled, 3 x 0.34 mm<sup>2</sup>, length 2 m</b>
<b>Degree of protection</b>	IP 67
<b>Ambient air temperature</b>	Operation : - 25...+ 70 °C
<b>Voltage limits</b> (including ripple)	--- 15...38 V
<b>Output current drift</b> θ ambient : - 25...+ 70 °C	≤ 10 %
<b>Current consumption, no-load</b>	4 mA

(1) Output current range for "3-wire" connection, see schemes below.  
(2) Output current range for "2-wire" connection, see schemes below.

## Wiring schemes

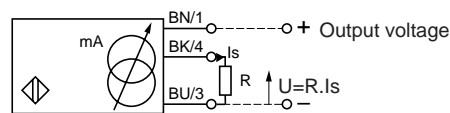
### 2-wire connection



Output current	Value of R (R = load impedance)
<b>24 V</b> 4...14 mA	≤ 640 Ω
4...20 mA	≤ 450 Ω
<b>48 V</b> 4...14 mA	≤ 2350 Ω

Ensure a minimum of 15 V between the + (1) and - (3) terminals of the sensor

### 3-wire connection



Output current	Value of R (R = load impedance)
<b>24 V</b> 0...10 mA	≤ 1800 Ω
0...16 mA	≤ 1125 Ω
<b>48 V</b> 0...10 mA	≤ 4200 Ω

Ensure a minimum of 5 V between the + and sensor output (terminal 4)

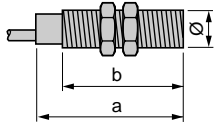
# Inductive proximity sensors

For specific applications : rotation monitoring  
Cylindrical type, metal case

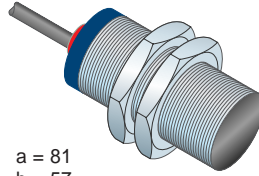
References, characteristics, dimensions, schemes

Accessories :  
page 3/59

## Flush mountable in metal



Lengths (mm) :  
a = Overall  
b = Threaded section



a = 81  
b = 57  
Ø = M30 x 1.5

Nominal sensing distance (S <sub>n</sub> )	10 mm	10 mm	10 mm
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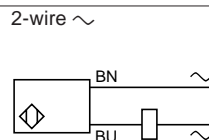
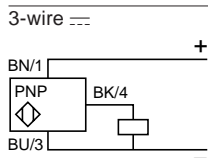
## References

3-wire $\equiv$ PNP	Impulses/minute 6...150	XSA-V11373	-	-
	120...3000	XSA-V12373	-	-
2-wire $\sim$	Impulses/minute 6...150	-	XSA-V11151	XSA-V11161
	120...3000	-	XSA-V12151	XSA-V12161
Weight (kg)	0.300	0.300	0.300	0.300

## Characteristics

Connection (2)	Pre-cabled, 3 x 0.34 mm <sup>2</sup> , length 2 m	Pre-cabled, 2 x 0.5 mm <sup>2</sup> , length 2 m	
Degree of protection	IP 67		
Operating temperature (1)	- 25...+ 70 °C		
Output state indication	LED		
Voltage limits (including ripple)	$\equiv$ 10...58 V	$\sim$ 93...132 V	$\sim$ 187...264 V
Switching capacity	0...200 mA with overload & short-circuit protection	20...350 mA (2 A inrush)	
Voltage drop, closed state	≤ 1.8 V	≤ 4.5 V	
Current consumption, no-load	≤ 10 mA	-	
Maximum switching frequency	6000 impulses/minute (for XSA-V11●●●) ; 48,000 impulses/minute (for XSA-V12 ●●●)		

## Wiring schemes



(1) Other operating temperature ranges : - 40...+ 70 °C (To order, add suffix **TF** to above refs.), - 25...+ 85 °C (To order, add suffix **TT** to above refs.).

(2) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above	Weight increase
5 m	<b>L05</b>	0.120 kg
10 m	<b>L10</b>	0.320 kg

Example : sensor XSA-V11373 with 5 m cable becomes XSA-V11373L05

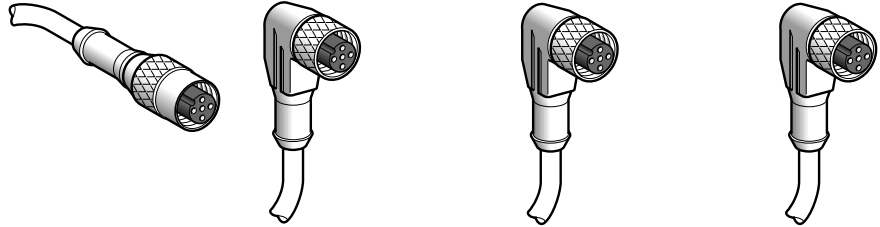
## Other versions

Sensors without initial "run-up" delay, or with reduced "run-up" delay on energisation of 3 seconds.  
SX2-DV units for monitoring overspeed or underspeed conditions, in the range 0 to 6000 impulses/minute.  
Please consult your Regional customer centre.

# Inductive proximity sensors

## Female connectors

### References, characteristics, dimensions, schemes



Connector type N°	9	10	11	12
Number of pins	4	4	4	4
Female connector version	M12 straight	M12 elbowed	M12 elbowed	M12 elbowed

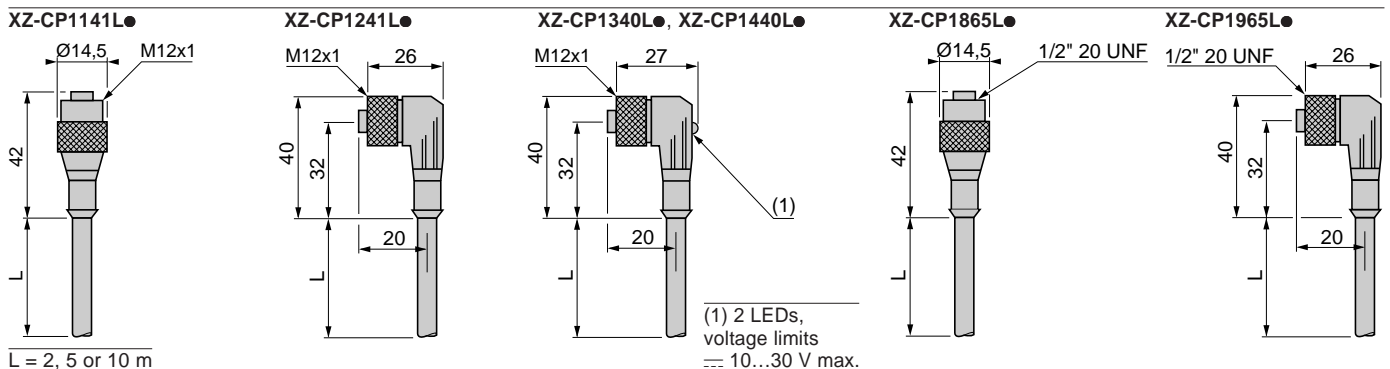
### References

PVR cable connection, Ø 5 mm	L = 2 m	XZ-CP1141L2	XZ-CP1241L2	XZ-CP1340L2	XZ-CP1440L2
	L = 5 m	XZ-CP1141L5	XZ-CP1241L5	XZ-CP1340L5	XZ-CP1440L5
	L = 10 m	XZ-CP1141L10	XZ-CP1241L10	XZ-CP1340L10	XZ-CP1440L10
Weight (kg)	0.090 (L = 2 m), 0.190 (L = 5 m), 0.370 (L = 10 m) 0.080 (L = 2 m), 0.180 (L = 5 m), 0.350 (L = 10 m)				

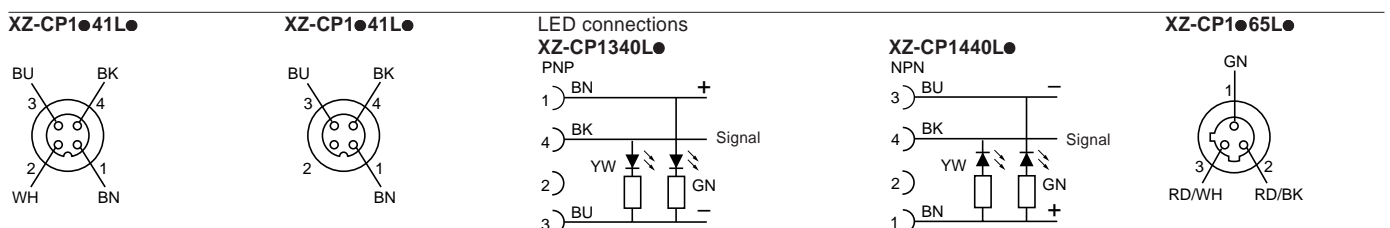
### Characteristics

Wiring configuration, PNP/NPN	–	–	PNP wiring	NPN wiring
Degree of protection	IP 67	IP 67	IP 67	IP 67
Ambient air temperature	-35...+80 °C	-35...+80 °C	-35...+80 °C	-35...+80 °C
Number of wires and c.s.a.	4 x 0.25 mm <sup>2</sup>	4 x 0.25 mm <sup>2</sup>	3 x 0.25 mm <sup>2</sup>	3 x 0.25 mm <sup>2</sup>
LED indication	No	No	2 LEDs	2 LEDs
Associated sensor references	XS●-●●●●●●●●D	XS●-●●●●●●●●D	XS●-●●●●●●●●D	XS●-●●●●●●●●D

### Dimensions



### Connection schemes

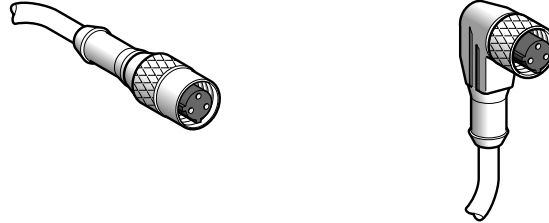


3

# Inductive proximity sensors

Female connectors (continued) and sensor fixing accessory

References, characteristics, dimensions, schemes



Connector type N°	13	14
Number of pins	3	3
Female connector version	1/2" 20 UNF straight	1/2" 20 UNF straight

## References

PVR cable connection, Ø 5 mm	L = 2 m	<b>XZ-CP1865L2</b>	<b>XZ-CP1965L2</b>
	L = 5 m	<b>XZ-CP1865L5</b>	<b>XZ-CP1965L5</b>
	L = 10 m	<b>XZ-CP1865L10</b>	<b>XZ-CP1965L10</b>
Weight (kg)	0.080 (L = 2 m), 0.180 (L = 5 m), 0.350 (L = 10 m)		

## Characteristics

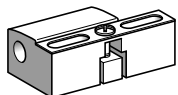
Wiring configuration, PNP/NPN	–	–
Degree of protection	IP 67	IP 67
Ambient air temperature	-35...+80 °C	-35...+80 °C
Number of wires and c.s.a.	3 x 0.34 mm <sup>2</sup>	3 x 0.34 mm <sup>2</sup>
LED indication	No	No
Associated sensor references	<b>XS●-●●●●●●●●K</b>	<b>XS●-●●●●●●●●K</b>

## Dimensions and connection schemes

Shown on previous page

## Saddle clamp fixing accessory for cylindrical type sensors

Description	For use with sensors		Reference	Weight kg
	Type	Diameter (mm)		
<b>Saddle clamps</b>	XS1	4 (plain)	<b>XSZ-B104</b>	0.005
		5 (M5 x 0.5)	<b>XSZ-B105</b>	0.005
	XS1, XS2	6.5 (plain)	<b>XSZ-B165</b>	0.005
	XS1, XS2, XS4	8 (M8 x 1)	<b>XSZ-B108</b>	0.006
		12 (M12 x 1)	<b>XSZ-B112</b>	0.006
		18 (M18 x 1)	<b>XSZ-B118</b>	0.010
	XS1, XS2, XS4	30 (M30 x 1.5)	<b>XSZ-B130</b>	0.020



**XSZ-B1●●**