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

References, characteristics, dimensions, schemes Accessories : page 3/59 Flush mountable in metal а Lengths (mm) : a = Overall b = Threaded or plain section a = 29 a = 41 b = 29 b = 24Nominal sensing distance (Sn) 0.8 mm 0.8 mm References PNP NO XS1-L04PA311 XS1-L04PA311S 3-wire ----XS1-L04NA311 NPN NO XS1-L04NA311S Weight (kg) 0.025 0.010 Characteristics Connection Pre-cabled, 3 x 0.11 mm², length 2 m (1) Connector (types 1 to 8) (2) Depending on connector IP 67 (see pages 3/58 and 3/59) **Degree of protection** - 25...+ 70 °C **Operating temperature Output state indication** LED, side mounted Voltage limits (including ripple) Switching capacity 0...100 mA with overload and short-circuit protection ≤ 2 V Voltage drop, closed state Current consumption, no-load ≤ 10 mA 5000 Hz Maximum switching frequency Wiring schemes 3-wire ----, NO output BN/1 BN/1 BK/4 (NO) + PNP BK/4 (NO) NPN BK/2 (NO) \Diamond \Diamond

(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-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.

BU/3

BU/3

a = 29 b = 24	a = 41 b = 24
0.8 mm	0.8 mm

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

Pre-cabled, 3 x 0.11 mm ² , length 2 m (1)	Connector (types 1 to 8) (2)
IP 67	Depending on connector (see pages 3/58 and 3/59)
- 25+ 70 °C	
LED, side mounted	
530 V	
0100 mA with overload and short-circuit protection	
≤2 V	
≤ 10 mA	
5000 Hz	

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

Accessories : page 3/59

References, characteristics, dimensions, schemes

Flush mountable in metal

Lengths (mm) : a = Overall b = Plain section	a = 33 (XS1-L06●C410 b = 30 (XS1-L06●C410		a = 42 b = 34	
c = For non flush mounting sensors	Stainless steel case	Brass case	Stainless steel case	Brass case

	otanness steer case	D1033 C03C	Stanness steer case	D1033 C03C
		Increased range model		Increased range model
Nominal sensing distance (Sn)	1.5 mm	2.5 mm	1.5 mm	2.5 mm

References

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

Characteristics

Pre-cabled,					
Connection	3 x 0.11 mm ² or 4 x 0.08	8 mm², L = 2 m (1)		Connector (types 1 to 8) (2)	
Degree of protection			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)	\pm 1038 V (\sim 24 V rectified and filtered)				
Switching capacity	0200 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-L06ee340/340S/340D/349/349S/349D	4-wire, NO + NC output XS1-L06ee410				

	+ K/4 (NO) K/2 (NC) —	BN/1 BK/4 (NO) + PNP WH/2 (NC) BU/3	BN/1 HPN BK/4 (NO) WH/2 (NC) BU/3
Note : for XSe-L06ee34eS sensors, NO or NC out	put on terminal 4		
(1) Sensors pre-cabled with other cable lengths :			
Length of cable	Suffix to be added to references stated a	bove for 2 m pre-cabled sensors	Weight increase
5 m	L1		0.030 kg
10 m	L2		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		a = 33 b = 27	a = 42 b = 31	a = 45 b = 21
Stainless steel case	Brass case	c = 3 Stainless steel case	c = 3 Stainless steel case	c = 3 Stainless steel case
1.5 mm	Increased range model 2.5 mm	2.5 mm	2.5 mm	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	Connector	Pre-cabled, 3 x 0.11 or	Connector	Connector
(types 9, 10, 11/12, 15, 16) (2)	(types 9, 10, 11, 12, 15, 16) (2)	4 x 0.08 mm ² , L = 2 m (1)	(types 1 to 8) (2)	(types 9, 10, 11/12, 15, 16) (2)
Depending on connector (see pages 3/58 and 3/59)		IP 67	Depending on connector (see p	bages 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°	
$=$ 1038 V (\sim 24 V rectified	d and filtered)			
0200 mA with overload a	nd short-circuit protection			
≤ 2 V	≤ 2.6 V	≤ 2 V		
≤ 10 mA	≤ 10 mA	≤ 10 mA		
5000 Hz	350 Hz	5000 Hz		

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

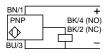
Accessories :

References, characteristics, dimensions, schemes

Flush mountable in metal

	<u> </u>						
Lengths (mm) : a = Overall b = Threaded so c = For non flus	ection h mounting sens	ors	a = 33 b = 26		a = 42 b = 26		
Nominal sensi	ng distance (Sn)	1.5 mm	Increased range mod 2.5 mm	el 1.5 mm	Increased range model 2.5 mm	
References	6			·			
3-wire <u></u>	PNP	NO	XS1-N08PA340	XS1-N08PA349	XS1-N08PA340S	XS1-N08PA349S	
	NPN	NO	XS1-N08NA340	XS1-N08NA349	XS1-N08NA340S	XS1-N08NA349S	
Weight (kg)			0.035	0.035	0.015	0.015	
Characteris	stics						
Connection			Pre-cabled, 3 x 0.11 mm² or 4 x 0.08 mm², L = 2 m (1)			Connector (types 1 to 8) (2) Depending on connector	
Degree of prot	ection		IP 67	IP 67		(see pages 3/58 and 3/59)	
Operating tem	perature		- 25+ 70 °C	- 25…+ 50 °C	- 25+ 70 °C	- 25+ 50 °C	
Output state in	dication		LED, annular	LED, annular		LED, 4 viewing ports at 90°	
Voltage limits (including ripple)		1038 V (\sim 24 V rectified and filtered)					
Switching capacity			0200 mA with over	0200 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 sch	emes						

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



BN/1	+
NPN	
	BK/4 (NO)
	BK/2 (NC)
BU/3	

Note : for XSe-N08ee34eS 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	L1	0.030 kg				
10 m	L2	0.080 kg				
Evenuela - concern VO4 NO0						

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

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	Connector	Pre-cabled, 3 x 0.11 or	Connector	Connector
(types 9, 10, 11/12, 15, 16) (2)	(types 9, 10, 11/12, 15, 16) (2)	4 x 0.08 mm ² , L = 2 m (1)	(types 1 to 8) (2)	(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°	
1038 V (~ 24 V rectified	d and filtered)			
0200 mA with overload ar	nd short-circuit protection			
≤ 2 V	≤ 2.6 V	≤ 2 V		
≤ 10 mA	≤ 10 mA	≤ 10 mA		
5000 Hz	350 Hz	800 Hz		

Cylindrical type, M8 x 1 threaded Metal case (stainless steel), 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 = 50 b = 40	a = 61 b = 40

Nominal sensing distance (Sn)	1.5 mm	1.5 mm

References

3-wire <u></u>	PNP	NO	XS1-M08PA370	_	XS1-M08PA370D	_
		NC	XS1-M08PB370	_	XS1-M08PB370D	_
	NPN	NO	XS1-M08NA370	_	XS1-M08NA370D	_
2-wire (non po	larised)					
Supply to :	Terminals 3-	4 NO	-	-	-	-
4-wire (compl	ementary					
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 ² , length 2 m (1)		Connector (types 9, 10	, 11/12, 15, 16) (2)	
Degree of protection	IP 67		Depending on connecto (see pages 3/58 and 3/5	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)	1058 V	1038 V	1058 V	1038 V	
Switching capacity		0200 mA with overload and short-circuit protection			
Voltage drop, closed state	≤ 2 V				
Current consumption, no-load	≤ 10 mA				
Maximum switching frequency	5000 Hz	5000 Hz			
Wiring schemes					
3-wire, NO or NC output XS1-M08ee370/370D	2-wire non polarised, N XS1-M08De210/210D/210		4-wire <u></u> , NO + NC out XS1-M08●●410/410D	out	
BN/1 + BN/1 + PNP BK/4 (NO) NPN BK/4 (NO) BK/2 (NC) BK/2 (NC) BU/3 - BU/3 -	BN/3 +/- BN/1 -/+	BN/1 +/- NC BU/2 -/+	PNP BK/4 (NO) WH/2 (NC)	NPN → BK/4 (NO) WH/2 (NC) 	
(1) Canaara are appled with other apple langther					

 (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-M08PA370 1
 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

_	_	_
_	_	_
-	-	-
XS1-M08DA210	XS1-M08DA210D	XS1-M08DA210LD
	XOT MOOD/LETOD	XOT MOODALIGED
-	-	-

Pre-cabled, 2 x 0.11 mm ² ,	Connector	Connector (types 9, 10, 15, 16)
length 2 m (1)	(types 9, 10, 15, 16) (2)	or splitter boxes (2)
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
<u> </u>		
1,5100 mA with overload and short-circuit pro	otection	
≤ 5.2 V		
-		
800 Hz		

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

a = Overall b = Threaded section c = For non flush mounting sensors	a = 50 b = 40
Nominal sensing distance (Sn)	1.5 mm
References	
2-wire \sim or $=$ <u>NO</u>	XS1-M08MA230
NC	XS1-M08MB230
Weight (kg)	0.035
Characteristics	
Connection	Pre-cabled, 2 x 0.11 mm ² , length 2 m (1)
Degree of protection	IP 67
Operating temperature	- 25+ 80 °C
Output state indication	LED, annular
Voltage limits (including ripple)	\sim or \pm 20264 V
Switching capacity	5100 mA (2)
Voltage drop, closed state	< 5.5 V
Current consumption, no-load	
Maximum switching frequency	(~) 25 Hz or () 650 Hz
Wiring schemes	
2-wire \sim or, NO or NC output	

 For connector version sensors
 (1) Sensors pre-cabled with other cable lengths :
 Suffix to be added to references stated above for 2 m pre-cabled sensors
 14 Weight increase 0.030 kg 10 m L2 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



XS2-M08MA230
XS2-M08MB230
0.035

Pre-cabled, 2 x 0.11 mm ² , length 2 m (1)
IP 67
- 25+ 80 °C
LED, annular
∼ or <u>==</u> 20264 V
5100 mA (2)
≤ 5.5 V
-
(~) 25 Hz or () 400 Hz

3/29

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 (Sn)	2 mm	Increased range model 4 mm	2 mm	Increased range model 4 mm
References				
3-wire PNP NO	XS1-N12PA340	XS1-N12PA349	XS1-N12PA340D	XS1-N12PA349D
NPNNO	XS1-N12NA340	XS1-N12NA349	XS1-N12NA340D	XS1-N12NA349D
4-wire (complementary outputs) PNP NO + NC	XS1-N12PC410	-	XS1-N12PC410D	_
Weight (kg)	0.070	0.070	0.020	0.020
Characteristics				
Connection	Pre-cabled, 3 x 0.34 mr length 2 m (1)	n² or 4 x 0.22 mm²,	Connector (types 9, 10, 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 9	90°
Voltage limits (including ripple)	1038 V (~ 24 V red	ctified and filtered)		
Switching capacity	0200 mA with overloa	ad and short-circuit prot	tection	
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	300 Hz	5000 Hz	300 Hz
Wiring schemes		•	•	
3-wire, NO output 4-wire, NO + NC output XS1/XS2-N12ee340/349D/349/349D XS1-N12ee410/410D				
BN/1 + BN/1 PNP BK/4 (NO) ↓ BU/3 BU/3 BU/3	+ BK/4 (NO) BK/2 (NC)		/4 (NO) + 1/2 (NC) -	BN/1 NPN BK/4 (NO) BU/3 WH/2 (NC)
(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-N12PA340 with 5 m cable becomes XS1-N12PA340L1 0.240 kg				

(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	3

Pre-cabled, 3 x 0.34 mm ² or 4 x 0.22 mm ² , 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°
1038 V (\sim 24 V rectified and filtered)	
0200 mA with overload and short-circuit protection	
≤ 2 V	
≤ 10 mA	
5000 Hz	

3/31

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 sectior c = For non flush mo	unting sensors		a = 50 b = 42		a = 61 b = 40		
Nominal sensing di	stance (Sn)		2 mm	2 mm	2 mm	2 mm	
References							
3-wire	PNP	NO	XS1-M12PA370	_	XS1-M12PA370D	_	
	NPN	NO	XS1-M12NA370	_	XS1-M12NA370D	_	
4-wire universal model	PNP/NPN programmab	NO/NC le	-	XS1-M12KP340	-	XS1-M12KP340D	
Weight (kg)			0.075	0.075	0.025	0.025	
Characteristics	3						
Connection			Pre-cabled, 3 x 0.34 m	m², length 2 m (1)			
Degree of protectio	n		IP 68		Depending on connector (see pages 3/58 and 3/5		
Operating temperat	ure		- 25+ 80 °C		1		
Output state indicat	tion		LED, annular		LED, 4 viewing ports at	90°	
Voltage limits (includ	ing ripple)		<u></u> 1058 V (3)	<u></u> 1038 V (4)	<u> </u>	1038 V (4)	
Switching capacity			0200 mA with overlo	ad and short-circuit prot	tection		
Voltage drop, close	d state		≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V	
Current consumption	on, no-load		≤ 10 mA				
Maximum switching	g frequency		5000 Hz				
Wiring scheme	es						
3-wire, NO output XS1/XS2-M12••370				4-wire programm XS1/XS2-M12KP34	able, NO or NC output 0/340D		
PNP BK/4 (N BU/3 BU/3	C) 	₩ В ВU/3	+ BK/4 (NO) BK/2 (NC) BK/2 (NC) BK/4 BK/4 BK/4 BK/4 BK/4 BK/4 BK/4 BK/4				
Length of cable 5 m 10 m		L1 0.090 kg L2 0.240 kg					
	s refer to suitab with rectified \sim	le female connec		, see pages 3/58 and 3/59).		

Non flush mountable in metal

a = 50 b = 37 c = 5		a = 61 b = 35	
c = 5		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

Pre-cabled, 3 x 0.34 mm ² , length 2 i	m (1)	Connector (types 9, 10, 15, 16) (2)			
IP 68		Depending on connector (see pages 3/58 and 3/59)			
- 25+ 80 °C					
LED, annular		LED, 4 viewing ports at 90°			
1058 V (3)	<u></u> 1038 V (4)	<u></u> 1058 V (3)	1038 V (4)		
0200 mA with overload and short-circuit protection					
≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V		
≤ 10 mA					
5000 Hz					

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			
	0 = 42	0 - 40			
Nominal sensing distance (Sn)	2 mm	2 mm			
References					
2-wire (non polarised) Supply to : Terminals 3-4 NO	XS1-M12DA210	XS1-M12DA210D			
Terminals 1-2 NC	XS1-M12DB210	XS1-M12DB210D			
Weight (kg)	0.075	0.025			
Characteristics					
Connection	Pre-cabled, 2 x 0.34 mm ² , 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)	1058 V				
Switching capacity	1.5100 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 non polarised, NO or NC output XS1-M12DA210/DA210D XS1-M12DB210/210LD					
BN/3 +/- BN/1 BU/4 -/+					
(1) Sensors pre-cabled with other cable lengths : Length of cable Suffix to b	e added to references stated above for 2 m pre-cabl	ed sensors Weight increase			

(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 : conser VS1-M12DA210 with 5 m cable becomes VS1-M12DA2101 1				

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.

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 mounta	ble in metal
)
Lengths (mm) : a = Overall		a = 50	a = 50	/
b = Threaded section c = For non flush mounting s	sansors	b = 42	b = 37 c = 5	
		AC/DC	AC/DC	
Nominal sensing distance	(Sn)	2 mm	4 mm	
References				
2-wire \sim or $=$	NO	XS1-M12MA230	XS2-M12MA230	
	NC	XS1-M12MB230	XS2-M12MB230	
2-wire \sim or $=$	NO	XS1-M12MA250	XS2-M12MA250	
(protected against short-circuits)	NC	XS1-M12MB250	XS2-M12MB250	
Weight (kg)		0.075	0.075	
Characteristics				
Connection		Pre-cabled, 2 x 0.34 mm ² , L = 2 m (1)		
Degree of protection		IP 68		
Operating temperature		- 25+ 80 °C		
Output state indication		LED, annular		
Voltage limits (including rippl	e)	∼ or == 20264 V		
Switching capacity		5200 mA (3)		
Voltage drop, closed state	1	≤ 5.5 V		
Current consumption, no-		_		
Maximum switching freque		(∼) 25 Hz or () 350 Hz		
Wiring schemes				
2-wire	utput			
BN/2 ~~				
For connector version se				
(1) Sensors pre-cabled with	other cable lengths :	Suffix to be added to references stated above for a	2 m pre-cabled sensors	Weight increase
Length of cable 5 m 10 m		L1 L2		0.075 kg 0.200 kg

(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.

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

	C C					
Lengths (mm) : a = Overall b = Threaded section c = For non flush m		i	a = 33.5 b = 26		a = 45 b = 26	
Nominal sensing o	listance (Sn)		5 mm	Increased range mode 10 mm	5 mm	Increased range model 10 mm
References			0		5 mm	
3-wire <u></u>	PNP	NO	XS1-N18PA340	XS1-N18PA349	XS1-N18PA340D	XS1-N18PA349D
	NPN	NO	XS1-N18NA340	XS1-N18NA349	XS1-N18NA340D	XS1-N18NA349D
4-wire	PNP	NO + NC	XS1-N18PC410	-	XS1-N18PC410D	_
(complementary outputs)	NPN	NO + NC	XS1-N18NC410	_	XS1-N18NC410D	_
Weight (kg)			0.100	0.100	0.040	0.040
Characteristic	s					
Connection			Pre-cabled, 3 x 0.34 mm length 2 m (1)	n² or 4 x 0.34 mm²,	Connector (types 9, 10, 15, 16) (2)	
Degree of protecti	on		IP 67		Depending on connector (see pages 3/58 and 3/5	
Operating temperating	Operating temperature		- 25+ 70 °C	- 25+ 50 °C	- 25+ 70 °C	- 25+ 50 °C
Output state indic	ation		LED, annular		LED, 4 viewing ports at 9	90°
Voltage limits (inclu	ding ripple)		1038 V (~ 24 V red	ctified and filtered)		
Switching capacit	y		0200 mA with overload and short-circuit protection			
Voltage drop, clos	ed state		≤ 2 V	≤ 2.6 V	≤2 V	≤ 2.6 V
Current consumpt	ion, no-load		≤ 10 mA			
Maximum switchir	Maximum switching frequency		2000 Hz	60 Hz	2000 Hz	60 Hz
Wiring schem	Wiring schemes					
3-wire ==, NO output 4-wire ==, NO + NC output XS1/XS2-N18+e340/340D/349/349D XS1/XS2-N18+e410/410D						
BU/3	PNP BK/4 (NO) BK/2 (NC) BH				+ 1/2 (NC) ↓ /2 (NC)	BN/1 + BK/4 (NO) BU/3 WH/2 (NC) -
5 m L1 10 m L2			added to references stated	above for 2 m pre-cabled	sensors	Weight increase 0.120 kg 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

XS2-N18PA340	XS2-N18PA340D	
XS2-N18NA340	XS2-N18NA340D	
-	-	
		5
-	-	
0.100	0.030	

Pre-cabled, 3 x 0.34 mm ² or 4 x 0.34 mm ² , 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°
$=$ 1038 V (\sim 24 V rectified and filtered)	
0200 mA with overload and short-circuit protection	
≤2 V	
 ≤ 10 mA	
2000 Hz	

3/37

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

Accessories : page 3/59

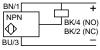
References, characteristics, dimensions, schemes

Flush mountable in metal



	INPIN	NU	AST-IVITONAS/U	-	AST-WITONASTUD	-
4-wire universal model	PNP/NPN programmabl	NO/NC e	-	XS1-M18KP340	-	XS1-M18KP340D
Weight (kg)			0.120	0.120	0.060	0.060
Characteristics						
Connection			Pre-cabled, 3 x 0.34 mm ² , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)	
Degree of protection	ı		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)			<u> </u>	<u></u> 1038 V (4)	<u></u> 1058 V (3)	<u></u> 1038 V (4)
Switching capacity			0200 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-M18ee370/370D	3-wire, NO output					output
BN/1 BK/4 (N						

PNP DU/3	BK/4 (NO) BK/2 (NC)	NPI ↓ BU/3



4-wire <u></u> programmable, NO (XS1-M18KP340/340D	or NC output
BN/1 (NO), BU/3 (NC) PNP BK/4 BU/3 (NO), BN/1 (NC)	BN/1 (NO), E

BN/1 (NO)	, BU/3 (NC)	
	. –	+
NPN		
	WH/2	
	BK/4	_
BU/3 (NO)	, BN/1 (NC)	

Weight increase

0.120 kg

0.320 kg

 (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

5 m

10 m L2 Example : sensor XS1-M18PA370 with 5 m cable becomes XS1-M18PA370L1

L1

(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 \sim 24 V.

(4) \sim 24 V rectified and filtered.

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 (Sn)	8 mm	8 mm			
References					
3-wire PNP NO	XS2-M18PA370	-			
NPN NO	XS2-M18NA370	_			
4-wire PNP/NPN NO/NC universal model programmable	-	XS2-M18KP340			
Weight (kg)	0.120	0.120			
Characteristics					
Connection	Connection Pre-cabled, 3 x 0.34 mm ² , length 2 m (1)				
Degree of protection	IP 68				
Operating temperature	- 25+ 80 °C				
Output state indication	LED, annular				
Voltage limits (including ripple)	1058 V (2)	1038 V (3)			
Switching capacity	0200 mA with overload and short-circuit prot	ection			
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 X\$2-M18●●370 BN/1 + BN/1 PNP BK/4 (NO) D BK/2 (NC) BU/3 - BU/3 - BU/3	XS2-M18 BN/1 (NO),	BU/3 (NC) <u>WH/2</u> + BN/1 (NO), BU/3 (NC) <u>BK/4</u> + <u>NPN</u> + <u>WH/2</u> BK/4 - <u>BK/4</u> -			
(1) Sensors pre-cabled with other cable lengths : Length of cable Suffix to be 5 m L1 10 m L2 Example : sensor XS2-M18PA370 with 5 m cable be	added to references stated above for 2 m pre-cabled	sensors Weight increase 0.120 kg 0.320 kg			
(2) Can be supplied with rectificated ~ 24 V.					

(2) Can be supplied with rectined (3) \sim 24 V rectified and filtered.

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

Langtha (mm)					
Lengths (mm) : a = Overall b = Threaded section	a = 50 b = 42	a = 60 b = 42			
	0 - 72	0 - 72			
Nominal sensing distance (Sn)	5 mm	5 mm			
References					
2-wire (non polarised) Supply to : Terminals 3-4 NO	XS1-M18DA210	XS1-M18DA210D			
Terminals 1-2 NC	XS1-M18DB210	_			
Weight (kg)	0.120	0.060			
Characteristics					
Connection	Pre-cabled, 2 x 0.5 mm ² , 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)	1058 V				
Switching capacity	1.5100 mA with overload and short-circuit p	rotection			
Voltage drop, closed state	≤ 5.2 V				
Current consumption, no-load	_				
Maximum switching frequency	350 Hz				
Wiring schemes					
2-wire ==, non polarised, NO or NC output XS1-M18DA210/DA210D	XS1-M18DB210				
BN/3 +/- BN/1 BN/1 -/+ BU/2 -/+					
(1) Sensors pre-cabled with other cable lengths : Length of cable Suffix to be a	added to references stated above for 2 m pre-cabled	l sensors Weight increase			
5 m L1 10 m L2		0.120 kg 0.320 kg			
Example : sensor XS1-M18DA210 with 5 m cable becomes XS1-M18DA210L1					

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.

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 (Sn)	5 mm			
References					
2-wire \sim or $=$	NO	XS1-M18MA230			
	NC	XS1-M18MB230			
2-wire \sim or $=$	NO	XS1-M18MA250			
(protected against short-circuits)	NC	XS1-M18MB250			
Weight (kg)		0.120			
Characteristics					
Connection		Pre-cabled, 2 x 0.5 mm ² , length 2 m (1)			
Degree of protection		IP 68			
Operating temperature		- 25+ 80 °C			
	ected model	LED, annular			
indication protected	d model	1 red LED (output state), 1 green LED (supply and short-circuit indication)	1 red LED (output state), 1 green LED (supply and short-circuit indication)		
Voltage limits (including ripple)	∼ or <u></u> 20264 V			
Switching capacity		(∼) 5300 mA or () 5200 mA (2)			
Voltage drop, closed state		≤ 5.5 V			
Current consumption, no-lo	ad	-			
Maximum switching frequer	юу	(∼) 25 Hz or () 200 Hz			
Wiring schemes					
2-wire ∼ or , NO or NC ou XS1-M18M●230/250	tput				
$\frac{\perp}{1}$ For connector version se $\overline{(1)}$ Sensors pre-cabled with c					
Length of cable 5 m	Suffix to b	e added to references stated above for 2 m pre-cabled sensors	Weight increase 0.120 kg		
10 m Example : sensor XS1-M18M	L2	heromes X\$1.M18MA230I 1	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.

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 set			a = 40.5 b = 32		a = 50 b = 30	
c = For non flus	n mounting sens	sors		Increased range model		Increased range model
Nominal sensir	ng distance (Sn	n)	10 mm	20 mm	10 mm	20 mm
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
Characteris	stics					
Connection			Pre-cabled, 3 or 4 x 0.34 mm ² , length 2 m (1)		Connector (types 9, 10, 15, 16) (2)	Connector (types 9, 10, 11/12, 15, 16) (2)
Degree of prote	ection		IP 67		Depending on connector (see pages 3/58 and 3/5	
Operating temp	perature		- 25+ 70 °C	- 25+ 50 °C	- 25+ 70 °C	- 25+ 50 °C
Output state in	dication		LED, annular		LED, 4 viewing ports at	90°
Voltage limits (in	ncluding ripple)			ctified and filtered)		
Switching capa			0 200 mA with overlo	ad and short-circuit prot	ection	
Voltage drop, c	-		≤2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V
				22.0 V	<u> </u>	2.0 V
Current consur	• •		<u>≤ 10 mA</u>			
Maximum swite		У	1000 Hz	15 Hz	1000 Hz	15 Hz
Wiring sche	es					
3-wire <u>—</u> , NO ou XS1/XS2-N30●3		49D				
BN/1 PNP Bi BU/3	+ K/4 (NO) K/2 (NC)] + 3K/4 (NO) 5K/2 (NC) —			
	cabled with oth	er cable lengths :				
Length of cable 5 m			L1	rences stated above for 2	m pre-cabled sensors	Weight increase 0.120 kg

0.320 kg

5 m 10 m

L2

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	a = 50
b = 19	b = 19
c = 13	c = 13
15 mm	15 mm

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

Pre-cabled, 3 or 4 x 0.34 mm ² , 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°
$=$ 1038 V (\sim 24 V rectified and filtered)	
0200 mA with overload and short-circuit protection	
≤2 V	
≤ 10 mA	
1000 Hz	

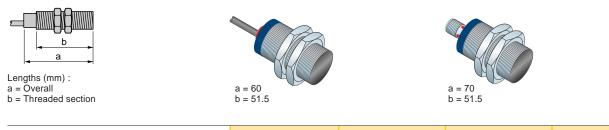
3

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



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

References

3-wire <u></u>	PNP	NO	XS1-M30PA370	_	XS1-M30PA370D	_
	NPN	NO	XS1-M30NA370	_	XS1-M30NA370D	_
4-wire universal model	PNP/NPN programmabl	NO/NC e	-	XS1-M30KP340	-	XS1-M30KP340D
Weight (kg)			0.205	0.205	0.145	0.145

Characteristics

Connection	Pre-cabled, 3 x 0.34 mn	n², length 2 m (1)	Connector (types 9, 10,	, 15, 16) (2)
Degree of protection			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°			90°
Voltage limits (including ripple)	<u></u> 1058 V (3)	<u></u> 1038 V (4)	<u></u> 1058 V (3)	<u></u> 1038 V (4)
Switching capacity	0200 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 <u></u> , NO output XS1-M30●●370/370D		4-wire programmable, NO or N XS1-M30KP340/340D	NC output
BN/1 + PNP BK/4 (NO) BK/2 (NC) BU/3 −	BN/1 + NPN BK/4 (NO) BU/3 −	BN/1 (NO), BU/3 (NC) + PNP BK/4 BU/3 (NO), BN/1 (NC)	BN/1 (NO), BU/3 (NC) + WH/2 BU/3 (NO), BN/1 (NC)
(1) Sensors pre-cabled with o	ther cable lengths :		
Length of cable	Suffix to be added to references a	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-M30PA	A370 with 5 m cable becomes XS1-M30PA3	70L1	

(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 \sim 24 V.

(4) \sim 24 V rectified and filtered.

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 sensi	ing distance (Sn)		15 mm	15 mm	15 mm	15 mm	
Reference	S						
3-wire	PNP	NO	XS2-M30PA370	_	XS2-M30PA370D	_	
0 1110	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	
Characteri	stics						
Connection					Connector (types 9, 10, 15, 16) (2)		
Degree of prot	laction		Pre-cabled, 3 x 0.34 mm ² , length 2 m (1)		Depending on connector (see pages 3/58 and 3/59)		
Operating tem			- 25+ 80 °C				
Output state in			LED, 4 viewing ports at 90°			٥U٥	
Voltage limits (1058 V (3)	1038 V (4)	1058 V (3)	1038 V (4)	
Switching cap				ad and short-circuit prot		(i)	
Voltage drop,			≤ 2 V	≤ 2.6 V	≤ 2 V	≤ 2.6 V	
	Imption, no-load		≤ 10 mA	•		·	
Maximum swit	ching frequency		1000 Hz				
Wiring sch	emes						
3-wire <u></u> , NO c XS2-M30●●370				4-wire <u></u> prog XS2-M30KP3	rammable, NO or NC out	put	
			H K/4 (NO) K/2 (NC) BU/3 (NC) H/2 H/2 H/2 BK/4 BK/4 BU/3 (NC) H/2 BK/4 B		+ 	BN/1 (NO), BU/3 (NC) NPN WH/2 BK/4 BU/3 (NO), BN/1 (NC)	
Length of cable 5 m 10 m Example : sens	or XS2-M30PA37	Suffix to be a L1 L2 With 5 m cable bed	comes XS2-M30PA370L1	l above for 2 m pre-cabled		Weight increase 0.120 kg 0.320 kg	
	(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 \sim 24 V.						

(3) Can be supplied with rectified \sim 24 V. (4) \sim 24 V rectified and filtered.

3/45

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 dista	ance (Sn)	10 mm			
References					
2-wire \sim or $=$	NO	XS1-M30MA230			
	NC	XS1-M30MB230			
2-wire \sim or $=$	NO	XS1-M30MA250			
(protected against short-circuits)	NC	XS1-M30MB250			
Weight (kg)		0.205			
Characteristics					
Connection		Pre-cabled, 2 x 0.5 mm ² , length 2 m (1)			
Degree of protection		IP 68			
Operating temperature	e	- 25+ 80 °C			
Output state	non protected model	LED, annular			
indication	protected model	1 red LED (output state), 1 green LED (supply and short-circuit indication)			
Voltage limits (including	ripple)	\sim or \pm 20264 V			
Switching capacity		(~) 5300 mA or (==) 5200 mA (2)			
Voltage drop, closed	state	≤ 5.5 V			
Current consumption,	, no-load	-			
Maximum switching fi	requency	(~) 25 Hz or () 100 Hz			
Wiring schemes					
2-wire ∼ or <u></u> , NO or N XS1-M30M●230/250	NC output				
+ For connector vers	ion sensors with other cable lengths :				
Length of cable	Suffix to be	added to references stated above for 2 m pre-cabled sensors	Weight increase 0.120 kg		
5 m 10 m	L2	2000 200 VC4 M20MA220L4	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.

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

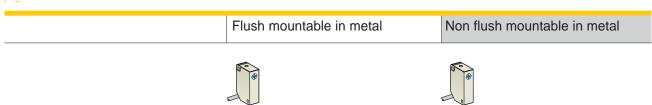
Lengths (mm) : a = Overall b = Threaded section c = For non flush mount	<u>c</u> ing sensors	a = 60 b = 38.5 c = 13 AC/DC			
Nominal sensing dista	nce (Sn)	15 mm			
References					
2-wire \sim or $=$	NO	XS2-M30MA230			
	NC	XS2-M30MB230			
2-wire \sim or (protected against	NO	XS2-M30MA250			
short-circuits)	NC	XS2-M30MB250			
Weight (kg)		0.205			
Characteristics					
Connection		Pre-cabled, 2 x 0.5 mm², L = 2 m (1)			
Degree of protection		IP 68			
Operating temperature)	- 25+ 80 °C	- 25+ 80 °C		
Output state indication	non protected model protected model	LED, annular 1 red LED (output state) 1 green LED (supply and short-circuit indication)			
Voltage limits (including	ripple)	\sim or \pm 20264 V			
Switching capacity		(~) 5300 mA or () 5200 mA (2)			
Voltage drop, closed s	tate	≤ 5.5 V			
Current consumption,	no-load	-	_		
Maximum switching fr	equency	(∼) 25 Hz or (===) 75 Hz			
Wiring schemes					
2-wire ∼ or —, NO or N XS2-M30●0200	IC output				
BN/2 ≂ BU/3 ≂ ↓ For connector versi	on sensors 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 10 m Example : sensor XS2-I	L1 L2 M30MA230 with 5 m cable b	becomes XS2-M30MA230L1	0.120 kg 0.320 kg		
		prt-circuit protection, it is recommended that a 0.8 A "quick-blow" fuse be co	nnected in series with the load.		

3

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

References, characteristics, schemes

Accessories : page 3/59



Nominal sensing distance (Sn)	2 mm	4 mm	
References			
4-wire PNP NO + NC	XSG-H027330	XSG-H047330	
(complementary outputs) NPN NO + NC	XSG-J027330	XSG-J047330	
Weight (kg)	0.180	0.180	
Characteristics			
Connection	Pre-cabled, length 2 m (1) 4 x 0.34 mm ²		
Degree of protection	IP 65		
Operating temperature	- 25+ 70 °C		
Output state indication	LED, at rear		
Voltage limits (including ripple)	1058 V		
Switching capacity	0200 mA (2)		
Voltage drop, closed state	≤ 1.8 V		
Current consumption, no-load	≤ 10 mA		
Maximum switching frequency	1000 Hz	800 Hz	
Wiring schemes			

+ BNBK (NO) PNPWH (NC) BU	H H H H H H H H H H H H H H

(1) Sensors pre-cabled with other cable leng	ths :					
Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase				
5 m	L05	0.120 kg				
10 m	L10	0.320 kg				
Example : sensor XSG-H027330 with 5 m ca	Example : sensor XSG-H027330 with 5 m cable becomes XSG-H027330L05					

(2) With overload and short-circuit protection.

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			
Nominal sensing dista	nce (Sn)	25 mm	25 mm			
References						
2-wire	NO	XSB-C25710	_			
2-wire \sim	NO	_	XSB-A25911			
	NC	_	XSB-A25921			
Weight (kg)		0.190	0.190			
Characteristics						
Connection		Screw terminals, capacity : 2 x 1	Screw terminals, capacity : 2 x 1.5 mm ²			
Degree of protection		IP 67	IP 67			
Operating temperature	9	- 25 + 70 °C	- 25 + 70 °C			
Output state indication		_	LED			
Voltage limits (including	ripple)	<u> </u>	\sim 93264 V			
Switching capacity (1)		1.580 mA	20150 mA			
Voltage drop, closed s	tate	≤ 7 V	≤ 9.5 V			
Current consumption,	no-load	_	_			
Maximum switching free	equency	250 Hz	40 Hz			
Wiring schemes						
2-wire NO output		2-wire \sim NO output	NC output			
↓ + 4 -		4				

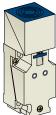
(1) For XSB-A (\sim) sensors, not incorporating overload or short-circuit protection, it is recommended that a 0.63 A "quick-blow" fuse be connected in series with the load.

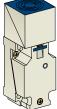
3

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





		Increased range model	
Nominal sensing distance (Sn)	15 mm	20 mm	15 mm
			· · · · · · · · · · · · · · · · · · ·

References

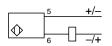
4-wire	PNP NC	D + NC	XS7-C40PC440H29	XS7-C40PC449H29	_
(complementary outputs)	NPN NO) + NC	XS7-C40NC440H29	XS7-C40NC449H29	_
2-wire	NO		_	_	XS7-C40DA210H29
(non polarised)	NO or NC programmable		_	_	XS7-C40DP210H29
Weight (kg)			0.220	0.220	0.220

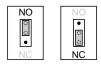
Characteristics

Connection	Screw terminals, capacity : 2 or 4 x 1.5 mm ²			
Degree of protection	IP 67	IP 67		
Operating temperature	- 25+ 70 °C			
Supply/output state indication	Output LED + Supply LED	Output LED		
Voltage limits (including ripple)				
Switching capacity (with overload and short-circuit protection)	0200 mA	1.5100 mA		
Voltage drop, closed state	≤2 V	≤ 5.2 V		
Current consumption, no-load	≤ 10 mA	_		
Maximum switching frequency	1000 Hz	150 Hz		

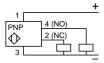
Wiring schemes

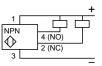
2-wire ---- (non polarised) NO or NC output depending on position of link





4-wire == NO + NC output

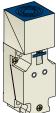




Plug-in block form C (41 x 40 x 117 mm), plastic, type XS8 5 position turret head d.c. supply

Accessories : page 3/59 References, characteristics, schemes

Non flush mountable in metal





		Increased range model	
Nominal sensing distance (Sn)	20 mm	40 mm	20 mm

References

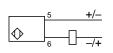
4-wire	PNP	NO + NC	XS8-C40PC440H29	XS8-C40PC449H29	_
(complementary outputs)	NPN	NO + NC	XS8-C40NC440H29	XS8-C40NC449H29	_
2-wire === (non polarised)	NO or NC programn		-	-	XS8-C40DP210H29
Weight (kg)			0.220	0.220	0.220

Characteristics

Connection	Screw terminals, capacity : 2 or 4 x 1.5 mm ²					
Degree of protection	IP 67					
Operating temperature	- 25+ 70 °C	- 25+ 70 °C				
Supply/output state indication	Output LED + Supply LED Output LED					
Voltage limits (including ripple)						
Switching capacity (with overload and short-circuit protection)	0200 mA 1.5100 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					

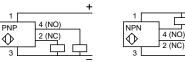
Wiring schemes

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





4-wire ----NO + NC output





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 :		References, characteristics, schemes					
pages 3/59					Non flush mountable in metal		
		Flush mountable	Flush mountable in metal				
		AC	AC/DC	AC	AC/DC		
Nominal sensing dis	stance (Sn)	15 mm		20 mm			
References							
2-wire \sim	NO/NC programmable	XS7-C40FP260H29	-	XS8-C40FP260H29	-		
2-wire \sim or $=$	NO/NC programmable	-	XS7-C40MP230H29	-	XS8-C40MP230H29		
Weight (kg)		0.220	0.220	0.220	0.220		
Characteristics	5						
Connection		Screw terminals, capa	Screw terminals, capacity : 2 x 1.5 mm ²				
Degree of protection	n	IP 67	IP 67				
Operating temperate	ure	- 25+ 70 °C					
Supply/output state	indication	Output LED					
Voltage limits		\sim 20264 V	\sim or <u></u> 20264 V	\sim 20264 V	\sim or <u>—</u> 20264 V		
Switching capacity		5500 mA (1)(2 A inrus		5500 mA (1)(2 A inrush	~ 5300 mA or		
Voltage drop, open	state	≤ 5.5 V					
Current consumptio	on, no-load	_					
Maximum switching frequency		25 Hz	\sim 25 Hz, \pm 50 Hz	25 Hz	\sim 25 Hz, <u>—</u> 50 Hz		
Wiring scheme	es						
2-wire \sim programma NO or NC output dep	ble ending on position of link	2-wire \sim 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.

NC

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	
Nominal sensing distance (Sn)	3060 mm (1)		
References			

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

Characteristics

Connection	Screw terminals, capacity : 2 x 1.5 mm ²				
Degree of protection	IP 67				
Operating temperature	- 25+ 70 °C				
Supply/output state indication	Output LED + Supply LED + Short-circuit LED				
Voltage limits (including ripple)		\sim or <u></u> 20264 V			
Switching capacity (with overload and short-circuit protection)	0200 mA	(==) 5100 mA or (∼) 5500 mA			
Voltage drop, closed state	≤ 1.8 V	≤ 6 V			
Current consumption, no-load	≤ 10 mA	-			
Maximum switching frequency	20 Hz	10 Hz			

Wiring schemes



(1) XSD-e60 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.

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 mount	able in metal	
Lengths (mm) : a = Overall b = Threaded s			a = 50 b = 42		a = 50 b = 42	a = 50 b = 42	
			Metal case		Plastic case	Plastic ca	se
Nominal sensi	i ng distance (Sn)	0.22 mm		0.44 mm	0.44 mm	ı
Reference	-						
3-wire	Output	010 mA (1) 414 mA (2)	-		-	XS4-P12A	B110
	Output	420 mA (2) 016 mA (1)	XS1-M12AB120		XS4-P12AB120	-	
Weight (kg)		0.075		0.065	0.065		
Characteri	stics						
Connection			Pre-cabled, 3 x 0.34 m	m², leng	th 2 m		
Degree of prot	tection		IP 67				
Ambient air te	mperature		Operation : - 25+ 70 °C				
/oltage limits ((including ripple)		<u></u> 1538 V		<u></u> 1538 V	1558	V
Dutput curren ambient : - 25			≤ 10 %				
	Imption, no-load		4 mA				
		vire" connection, see vire" connection, see					
Wiring sch	emes						
2-wire connec	tion			3-wire	connection		
MA ↓ MA	BN/1 BK/4 BU/3 Is	Output current		\bigcirc	BK/4	D+ Output voltage J=R.Is D-	
Output current 24 V 414 420 48 V 414 Ensure a minim	mA mA	Value of R (R = lo: $\leq 640 \Omega$ $\leq 450 \Omega$ $\leq 2350 \Omega$ een the + (1) and - (3)	ad impedance) 3) terminals of the sensor	24 V 48 V	010 mA s	Value of R (R = load $\leq 1800 \Omega$ $\leq 1125 \Omega$ $\leq 4200 \Omega$ on the + and sensor o	· · ·

"Original equipment" range Ø 12 mm sensors with analogue output (XSP-Heee62). Please consult your Regional customer centre.

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 i	n metal		
Lengths (mm) : a = Overall b = Threaded so c = For non flus		ors	a = 50 b = 42 c = 0 Metal case	a = 40.6 b = 26 c = 8 Plastic case	a = 40.6 b = 26 c = 8 Plastic case		
Nominal sensi	ng distance (Sn)	0.55 mm	0.88 mm	0.88 mm		
References	S						
3-wire	Output	010 mA (1) 414 mA (2)	_	-	XS4-P18AB110		
	Output	420 mA (2) 016 mA (1)	XS1-M18AB120	XS4-P18AB120	-		
Weight (kg)			0.120	0.080	0.080		
Characteris	stics						
Connection			Pre-cabled, 3 x 0.34 mm ² , len	gth 2 m			
Degree of prote	ection		IP 67				
Ambient air ter	mperature		Operation : - 25+ 70 °C				
Voltage limits (i	including ripple)		1538 V		1558 V		
Output current 0 ambient : - 25			≤ 10 %				
	mption, no-load		4 mA				
		vire" connection, see vire" connection, see					
Wiring sche	emes						
2-wire connect	lion		3-wir	e connection			
	BK/4 BU/3 Is	Output current	\bigcirc	$\begin{array}{c} \text{mA} \\ & \text{BN/1} \\ & \text{BK/4} \\ & \text{BK/4} \\ & \text{BK/4} \\ & \text{BU/3} \\ & \text{BU/3} \\ & \text{C} \\ & \text{C}$	out voltage		
Output current 24 V 414 r 420 r	mA mA	Value of R (R = loc $\leq 640 \Omega$ $\leq 450 \Omega$	ad impedance) Outpute 24 V	ut current Value of 010 mA ≤ 1800 Ω 016 mA ≤ 1125 Ω			

Other versions

"Original equipment" range Ø 18 mm sensors with analogue output (XSP-Heee62). Please consult your Regional customer centre.

≤ 4200 Ω

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

48 V 0...10 mA

3

3/55

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	e in metal		
Lengths (mm) :					
a = Overall b = Threaded section	a = 50 b = 42	a = 52.6 b = 32	a = 52.6 b = 32		
c = For non flush mounting sensors	c = 0 Metal case	c = 13 Plastic case	c = 13 Plastic case		
Nominal sensing distance (Sn)	110 mm	1.515 mm	1.515 mm		
References					
	_	_	XS4-P30AB110		
Output 420 mA (2) 016 mA (1)	XS1-M30AB120	XS4-P30AB120	-		
Weight (kg)	0.200	0.100	0.100		
Characteristics					
Connection	Pre-cabled, 3 x 0.34 mm ² , le	ength 2 m			
Degree of protection	IP 67				
Ambient air temperature	Operation : - 25+ 70 °C				
Voltage limits (including ripple)	1538 V		1558 V		
Output current drift θ ambient : - 25+ 70 °C	≤ 10 %				
Current consumption, no-load	4 mA				
 (1) Output current range for "3-wire" connection, see (2) Output current range for "2-wire" connection, see 	e schemes below. e schemes below.				
Wiring schemes					
2-wire connection	3-и	vire connection			
BK/1 BK/4 BU/3 BU/3 BU/3 BU/3 BU/3 BU/3			Dutput voltage s		

Output	current	Value of R (R = load impedance)	C
24 V	414 mA	≤ 640 Ω	2
	420 mA	\leq 450 Ω	
48 V	414 mA	≤ 2350 Ω	4
Ensure	a minimum (of 15 V between the + (1) and - (3) terminals of the sensor	Ē

3

For specific applications : rotation monitoring Cylindrical type, metal case

References, characteristics, dimensions, schemes

Accessories : page 3/59

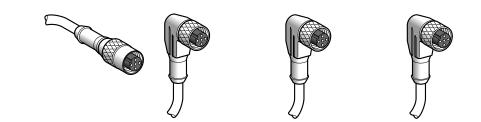
Flush mountable in metal

Lengths (mm) : a = Overall b = Threaded section		a = 81 b = 57 Ø = M30 x 1.5					
Nominal sensing di	stance (Sn)	10 mm	10 mm	10 mm			
References							
3-wire PNP	Impulses/minute 6150	XSA-V11373	-	_			
	1203000	XSA-V12373	-	_			
2-wire \sim	Impulses/minute 6150		XSA-V11151	XSA-V11161			
	1203000	_	XSA-V11151 XSA-V12151	XSA-V12161			
Weight (kg)		0.300	0.300	0.300			
Characteristics	3						
Connection (2)		Pre-cabled, 3 x 0.34 mm ² , length 2 m	Pre-cabled, 2 x 0.5 mm ² , length 2 m				
Degree of protection		IP 67	IP 67				
Operating temperature (1)		- 25+ 70 °C					
Output state indicat	tion	LED					
Voltage limits (inclue	ding ripple)	<u> </u>	~ 93132 V	\sim 187264 V			
Switching capacity		0200 mA with overload & short-circuit protection	20350 mA (2 A inrush)				
Voltage drop, close	d state	≤ 1.8 V	≤ 4.5 V				
Current consumption	on, no-load	≤ 10 mA	-				
Maximum switching	I frequency	6000 impulses/minute (for XSA-V11 •••) ; 48,000 impulses/minute (for XSA-V12 •••)					
Wiring scheme	es						
3-wire		2-wire \sim					
BN/1 PNP BU/3 BU/3	± =						
	emperature ranges : - 40+ ed with other cable lengths :	70 °C (To order, add suffix TF to ab	ove refs.), - 25+ 85 °C (T	o order, add suffix TT to above refs.).			
Length of cable		Suffix to be added to reference	es stated above	Weight increase			
5 m 10 m Example : sensor XS	A-V11373 with 5 m cable be	L05 L10 comes XSA-V11373L05		0.120 kg 0.320 kg			
Other versions		Sensors without initial "run-up'	verspeed or underspeed co	n-up" delay on energisation of 3 seconds. nditions, in the range 0 to 6000 impulses/			

3/57

Female connectors

References, characteristics, dimensions, schemes



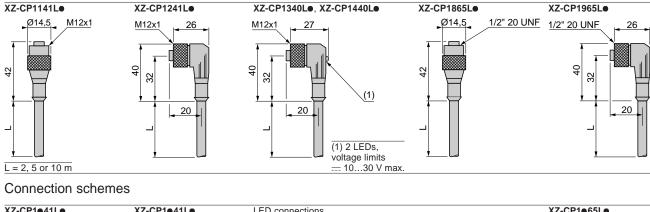
Connector type N°	9	10	11	12
Number of pins	4	4	4	4
Female connector version	M12 straight	M12 elbowed	M12 elbowed	M12 elbowed

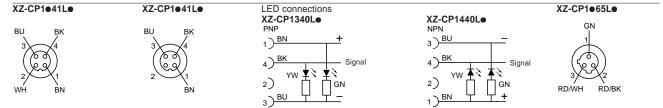
References

PVR cable connection, Ø 5 mm	L = 2 m L = 5 m	XZ-CP1141L2 XZ-CP1141L5	XZ-CP1241L2 XZ-CP1241L5	XZ-CP1340L2 XZ-CP1340L5	XZ-CP1440L2 XZ-CP1440L5	
	L = 10 m	XZ-CP1141L10	XZ-CP1241L10	XZ-CP1340L10	XZ-CP1440L10	
Weight (kg)		0.090 (L = 2 m), 0.19	.090 (L = 2 m), 0.190 (L = 5 m), 0.370 (L = 10 m)			
Characteristics						

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

Dimensions





Downloaded from Elcodis.com electronic components distributor

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	<u>L = 2 m</u>	XZ-CP1865L2	XZ-CP1965L2			
	L = 5 m	XZ-CP1865L5	XZ-CP1965L5			
	L = 10 m	XZ-CP1865L10	XZ-CP1965L10			
Weight (kg)		0.080 (L = 2 m), 0.180 (L= 5 m), 0.3	0.080 (L = 2 m), 0.180 (L= 5 m), 0.350 (L = 10 m)			
Characteristics						
Wiring configuration, PNP/N	IPN	_	-			
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 ²	3 x 0.34 mm ²			
LED indication		No	No			
Associated sensor references		XSe-000000K	ХSө-өөөөөөк			
Dimensions and con	nection sche	mes				

Shown on previous page

Saddle clamp fixing accessory for cylindrical type sensors

Description	For use with senso	For use with sensors		Weight
· · · · · · · · · · · · · · · · · · ·	Туре	Diameter (mm)		kg
Saddle clamps	XS1	4 (plain)	XSZ-B104	0.005
		5 (M5 x 0.5)	XSZ-B105	0.005
XSZ-B100	<u>XS1, XS2</u>	6.5 (plain)	XSZ-B165	0.005
	XS1, XS2, XS4	8 (M8 x 1)	XSZ-B108	0.006
		12 (M12 x 1)	XSZ-B112	0.006
		18 (M18 x 1)	XSZ-B118	0.010
	XS1, XS2, XS4	30 (M30 x 1.5)	XSZ-B130	0.020