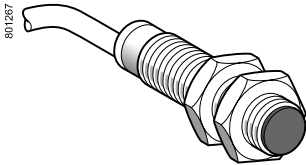


Inductive proximity sensors

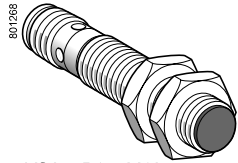
OsiSense XS, general purpose

Cylindrical, increased range, flush mountable

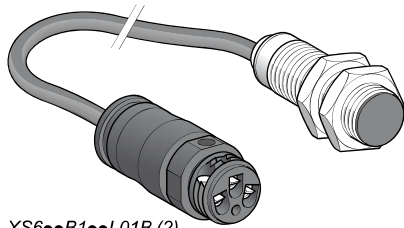
Three-wire DC, solid-state output



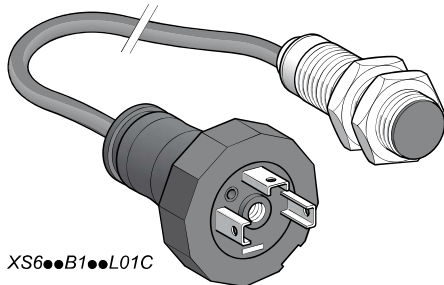
XS6●●B1●●L2



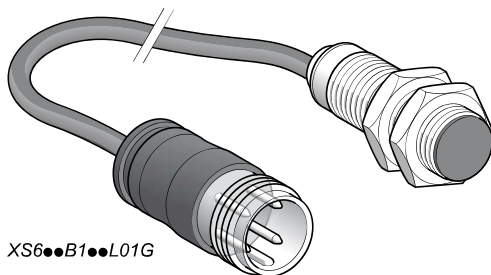
XS6●●B1●●M12



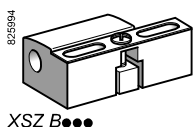
XS6●●B1●●L01B (2)



XS6●●B1●●L01C



XS6●●B1●●L01G



XSZ B●●●

Sensors, 3-wire ~ 12-48 V, long case model

Sensing distance (Sn) mm	Function	Output	Connection	Reference	Weight kg
Ø 8, threaded M8 x 1					
2.5	NO	PNP	Pre-cabled (L = 2 m) (1)	XS6 08B1PAL2	0.035
			M12 connector	XS6 08B1PAM12	0.015
	NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 08B1NAL2	0.035
			M12 connector	XS6 08B1NAM12	0.015
	NC	PNP	Pre-cabled (L = 2 m) (1)	XS6 08B1PBL2	0.035
			M12 connector	XS6 08B1PBM12	0.015
NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 08B1NBL2	0.035	
		M12 connector	XS6 08B1NBM12	0.015	
Ø 12, threaded M12 x 1					
4	NO	PNP	Pre-cabled (L = 2 m) (1)	XS6 12B1PAL2	0.075
			M12 connector	XS6 12B1PAM12	0.020
	NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 12B1NAL2	0.075
			M12 connector	XS6 12B1NAM12	0.020
	NC	PNP	Pre-cabled (L = 2 m) (1)	XS6 12B1PBL2	0.075
			M12 connector	XS6 12B1PBM12	0.020
NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 12B1NBL2	0.075	
		M12 connector	XS6 12B1NBM12	0.020	
Ø 18, threaded M18 x 1					
8	NO	PNP	Pre-cabled (L = 2 m) (1)	XS6 18B1PAL2	0.100
			M12 connector	XS6 18B1PAM12	0.040
			Remote screw terminal connector	XS6 18B1PAL01B (2)	0.100
			Remote DIN 43650 connector	XS6 18B1PAL01C	0.100
	NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 18B1NAL2	0.100
			M12 connector	XS6 18B1NAM12	0.040
			Remote screw terminal connector	XS6 18B1NAL01B (2)	0.100
			Remote DIN 43650 connector	XS6 18B1NAL01C	0.100
	NC	PNP	Pre-cabled (L = 2 m) (1)	XS6 18B1PBL2	0.100
			M12 connector	XS6 18B1PBM12	0.040
			Remote screw terminal connector	XS6 18B1PBL01B (2)	0.100
			Remote DIN 43650 connector	XS6 18B1PBL01C	0.100
NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 18B1NBL2	0.100	
		M12 connector	XS6 18B1NBM12	0.040	
		Remote screw terminal connector	XS6 18B1NBL01B (2)	0.100	
		Remote DIN 43650 connector	XS6 18B1NBL01C	0.100	
Ø 30, threaded M30 x 1.5					
15	NO	PNP	Pre-cabled (L = 2 m) (1)	XS6 30B1PAL2	0.205
			M12 connector	XS6 30B1PAM12	0.145
			Remote screw terminal connector	XS6 30B1PAL01B (2)	0.205
			Remote DIN 43650 connector	XS6 30B1PAL01C	0.205
	NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 30B1NAL2	0.205
			M12 connector	XS6 30B1NAM12	0.145
			Remote screw terminal connector	XS6 30B1NAL01B (2)	0.205
			Remote DIN 43650 connector	XS6 30B1NAL01C	0.205
	NC	PNP	Pre-cabled (L = 2 m) (1)	XS6 30B1PBL2	0.205
			M12 connector	XS6 30B1PBM12	0.145
			Remote screw terminal connector	XS6 30B1PBL01B (2)	0.205
			Remote DIN 43650 connector	XS6 30B1PBL01C	0.205
NPN	PNP	Pre-cabled (L = 2 m) (1)	XS6 30B1NBL2	0.205	
		M12 connector	XS6 30B1NBM12	0.145	
		Remote screw terminal connector	XS6 30B1NBL01B (2)	0.205	
		Remote DIN 43650 connector	XS6 30B1NBL01C	0.205	

Accessories (3)

Description	For use with sensors	Reference	Weight kg
Fixing clamps	Ø 8	XSZ B108	0.006
	Ø 12	XSZ B112	0.006
	Ø 18	XSZ B118	0.010
	Ø 30	XSZ B130	0.020

(1) For a 5 m long cable replace L2 by L5; for a 10 m long cable replace L2 by L10.

Example: XS6 08B1PAL2 becomes **XS6 08B1PAL5** with a 5 m long cable.

(2) Protective cable gland included with sensor.

(3) For further information, see page 3/112.


Inductive proximity sensors

OsiSense XS, general purpose

Cylindrical, increased range, flush mountable

Three-wire DC, solid-state output

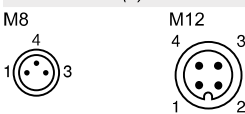
Characteristics

Sensor type		XS1/XS6●●B●●M8	XS1/XS6●●B●●M12	XS1/XS6●●B●●L2
Product certifications		UL, CSA, CE		
Connection	Connector	M8	M12	–
	Pre-cabled	–	–	Length 2 m
	Remote connector	Remote screw terminal (L01B), DIN 43650A (L01C) and M18 (L01G) connectors, on 0.15 m flying lead.		
Operating zone (1)	Ø 6.5 and Ø 8	mm	0...2	
	Ø 12	mm	0...3.2	
	Ø 18	mm	0...6.4	
	Ø 30	mm	0...12	
Differential travel		%	1...15 of effective sensing distance (Sr)	
Degree of protection	Conforming to IEC 60529		IP 65 and IP 67	IP 65 and IP 68, double insulation  except Ø 6.5 and Ø 8: IP 67
	Conforming to DIN 40050		IP 69K for Ø 12, 18 and 30 sensors	
Storage temperature		°C	-40...+85	
Operating temperature		°C	-25...+70	
Materials	Case	Nickel plated brass (except XS6 08: stainless steel, grade 303)		
	Sensing face	PPS		
	Cable			PvR 3 x 0.34 mm ² except Ø 6.5 and 8: 3 x 0.11 mm ²
Vibration resistance	Conforming to IEC 60068-2-6	25 gn, amplitude ± 2 mm (f = 10 to 55 Hz)		
Shock resistance	Conforming to IEC 60068-2-27	50 gn, duration 11 ms		
Output state indication			Yellow LED, 4 viewing ports at 90°	Yellow LED, annular
Rated supply voltage		V	XS1: ≍ 12...24 with protection against reverse polarity XS6: ≍ 12...48 with protection against reverse polarity	
Voltage limits (including ripple)		V	XS1: ≍ 10...36; XS6: ≍ 10...58	
Switching capacity		mA	≤ 200 with overload and short-circuit protection	
Voltage drop, closed state		V	≤ 2	
Current consumption, no-load		mA	≤ 10	
Maximum switching frequency	Ø 6.5, Ø 8 and Ø 12	Hz	2500	
	Ø 18	Hz	1000	
	Ø 30	Hz	500	
Delays	First-up	ms	≤ 10	
	Response	ms	≤ 0.2 for Ø 6.5, Ø 8 and Ø 12, ≤ 0.3 for Ø 18, ≤ 0.6 for Ø 30	
	Recovery	ms	≤ 0.2 for Ø 6.5, Ø 8 and Ø 12, ≤ 0.7 for Ø 18, ≤ 1.4 for Ø 30	

(1) Detection curves, see page 3/116.

Wiring schemes (See connection on page 9/45)

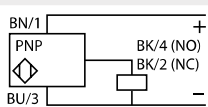
Connector (1)



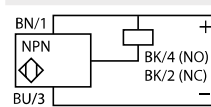
Pre-cabled

BU: Blue
BN: Brown
BK: Black

PNP



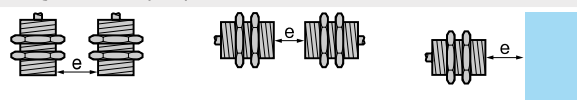
NPN



For M8 connector, NO and NC outputs on terminal 4

Setting-up

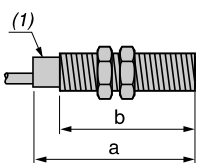
Minimum mounting distances (mm)



Sensors	Side by side	Face to face	Facing a metal object
Ø 6.5	e ≥ 5	e ≥ 30	e ≥ 8
Ø 8	e ≥ 5	e ≥ 30	e ≥ 8
Ø 12	e ≥ 8	e ≥ 50	e ≥ 12
Ø 18	e ≥ 16	e ≥ 100	e ≥ 25
Ø 30	e ≥ 30	e ≥ 180	e ≥ 45

(1) For pin arrangement of remote connectors L01B, L01C and L01G, see page 3/29.

Dimensions



(1) LED

Sensors		Pre-cabled (mm)		M8 connector (mm)		M12 connector (mm)	
Short case model		a	b	a	b	a	b
Ø 6.5	XS1 06B3	33	–	42	–	45	–
Ø 8	XS1 08B3	33	25	42	26	45	24
Ø 12	XS1 12B3	35	25	–	–	50	30
Ø 18	XS1 18B3	39	28	–	–	50	28
Ø 30	XS1 30B3	43	32	–	–	55	32

Sensors		Pre-cabled (mm)		M12 connector (mm)	
Long case model		a	b	a	b
Ø 8	XS6 08B1	51	42	62	40
Ø 12	XS6 12B1	53	42	62	42
Ø 18	XS6 18B1	62	52	74	52
Ø 30	XS6 30B1	62	52	74	52