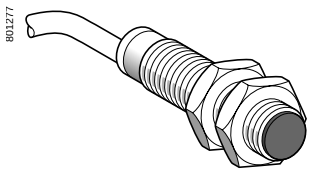
Inductive proximity sensors

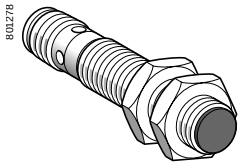
Osiprox® Universal

Cylindrical, flush mountable

Two-wire, a.c. or d.c. supply *(1)*



XS6 ●●B1M●L2



XS6 ●●B1M●U20

Ø 12

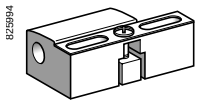
Sensing distance (Sn) mm	Function	Connection	Reference	Weight kg
4	NO	Pre-cabled (L = 2 m) *(2)*	**XS6 12B1MAL2**	0.075
		Connector 1/2" - 20UNF	**XS6 12B1MAU20**	0.025
	NC	Pre-cabled (L = 2 m) *(2)*	**XS6 12B1MBL2**	0.075
		Connector 1/2" - 20UNF	**XS6 12B1MBU20**	0.025

Ø 18

Sensing distance (Sn) mm	Function	Connection	Reference	Weight kg
8	NO	Pre-cabled (L = 2 m) *(2)*	**XS6 18B1MAL2**	0.120
		Connector 1/2" - 20UNF	**XS6 18B1MAU20**	0.060
	NC	Pre-cabled (L = 2 m) *(2)*	**XS6 18B1MBL2**	0.120
		Connector 1/2" - 20UNF	**XS6 18B1MBU20**	0.060

Ø 30

Sensing distance (Sn) mm	Function	Connection	Reference	Weight kg
15	NO	Pre-cabled (L = 2 m) *(2)*	**XS6 30B1MAL2**	0.205
		Connector 1/2" - 20UNF	**XS6 30B1MAU20**	0.145
	NC	Pre-cabled (L = 2 m) *(2)*	**XS6 30B1MBL2**	0.205
		Connector 1/2" - 20UNF	**XS6 30B1MBU20**	0.145



XSZ B1●●

Accessories *(3)*

Description		Reference	Weight kg
Fixing clamps	Ø 12	**XSZ B112**	0.006
	Ø 18	**XSZ B118**	0.010
	Ø 30	**XSZ B130**	0.020

(1) Available in Ø8 plastic with double insulation, see page 37308/2.

(2) For a 5 m long cable, replace L2 with L5, and for a 10 m long cable, replace L2 with L10.
Example: XS6 12B1MAL2 becomes XS6 12B1MAL5 with a 5 m long cable.

(3) For further information, see page 37317/2.

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Cylindrical, flush mountable
Two-wire, a.c. or d.c. supply

Characteristics

Sensor type			XS6 ●●B1M●U20	XS6 ●●B1M●L2
Product certifications			UL, CSA, CE	
Connection	Connector		1/2" - 20 UNF	–
	Pre-cabled		–	Length: 2 m
Operating zone	Ø 12	**mm**	**0…3.2**	
	Ø 18	**mm**	**0…6.4**	
	Ø 30	**mm**	**0…12**	
Differential travel		**%**	1…15 of real sensing distance (Sr)	
Degree of protection	Conforming to IEC 60529		IP 67	IP 68 double insulation ⧈
Storage temperature range		**°C**	- 40…+ 85	
Operating temperature range		**°C**	- 25…+ 70	
Materials	Case		Nickel plated brass	
	Pre-cabled		PvR 2 x 0.34 mm²:	
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			LED (yellow): 4 viewing ports at 90°	LED (yellow): annular
Rated supply voltage		**V**	∿ or ⎓ 24…240 (∿ 50/60 Hz)	
Voltage limits (including ripple)		**V**	∿ or ⎓ 20…264	
Switching capacity	**XS6 12B1M●●●**	**mA**	5…200 ***(1)***	
	XS6 18B1M●●●, XS6 30B1M●●●	**mA**	∿ 5…300 or ⎓ 5…200 ***(1)***	
Voltage drop, closed state		**V**	≤ 5.5	
Residual current, open state		**mA**	≤ 0.8	
Maximum switching frequency	**XS6 12B2●●●,XS6 18B1M●●●**	**Hz**	∿ 25 or ⎓ 1000	
	XS6 30B1M●●●	**Hz**	∿ 25 or ⎓ 500	
Delays	First-up	**ms**	≤ 20 **XS6 12B1M●●●**, ≤ 25 **XS6 18B1M●●●** and **XS6 30B1M●●●**	
	Response	**ms**	≤ 0.5	
	Recovery	**ms**	≤ 0.2 **XS6 12B1M●●●**, ≤ 0.5 **XS6 18B1M●●●**, ≤ 2 **XS6 30B1M●●●**	

(1) It is essential to connect a 0.4 A quick-blow fuse in series with the load

Wiring scheme

Connector

1/2" - 20 UNF

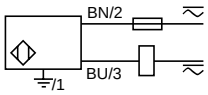
See connection on page 30210/3.

Pre-cabled

BU: Blue
BN: Brown

2-wire ∿ or ⎓

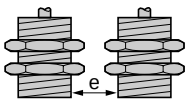
N/O or N/C output

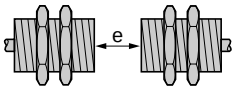


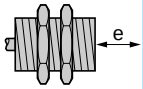
⏚: on connector models only

Setting-up

Minimum mounting distances (mm)



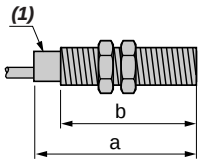




	Side by side	Face to face	Facing a metal object
Ø 12	e ≥ 8	e ≥ 50	e ≥ 12
Ø 18	e ≥ 16	e ≥ 90	e ≥ 25
Ø 30	e ≥ 30	e ≥ 180	e ≥ 45

Dimensions

XS6



(1) LED

	Pre-cabled (mm)		Connector (mm)	
XS6	**a**	**b**	**a**	**b**
Ø 12	50	42	61	42
Ø 18	60	51	72.2	51
Ø 30	60	51	72.2	51