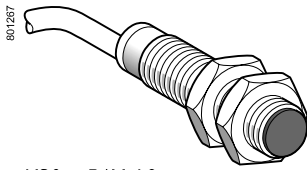


# Inductive proximity sensors

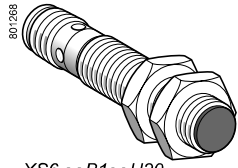
OsiSense XS, general purpose

Cylindrical, increased range, flush mountable

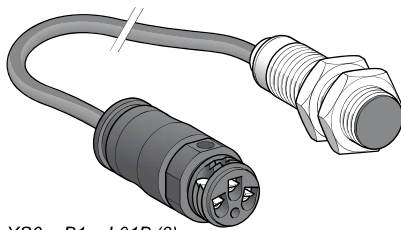
Two-wire AC or DC <sup>(1)</sup>



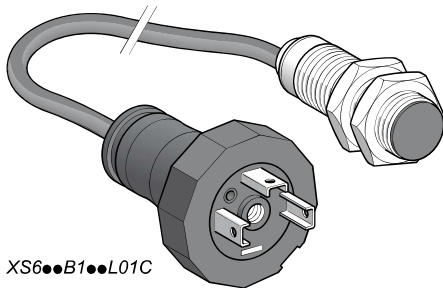
XS6 ●●B1M●L2



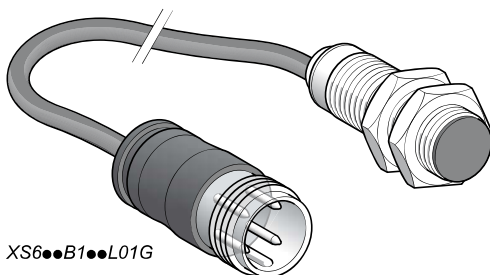
XS6 ●●B1●●U20



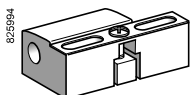
XS6 ●●B1●●L01B (3)



XS6 ●●B1●●L01C



XS6 ●●B1●●L01G



XSZ B1●●

## Sensors, 2-wire $\sim$ 24-240 V, long case model

Sensing distance (Sn) mm	Function	Connection	Reference	Weight kg
<b>Ø 12, threaded M12 x 1</b>				
4	NO	Pre-cabled (L = 2 m) (2)	<b>XS6 12B1MAL2</b>	0.075
		1/2"-20UNF connector	<b>XS6 12B1MAU20</b>	0.025
	NC	Pre-cabled (L = 2 m) (2)	<b>XS6 12B1MBL2</b>	0.075
		1/2"-20UNF connector	<b>XS6 12B1MBU20</b>	0.025

## Ø 18, threaded M18 x 1

8	NO	Pre-cabled (L = 2 m) (2)	<b>XS6 18B1MAL2</b>	0.100
		1/2"-20UNF connector	<b>XS6 18B1MAU20</b>	0.060
		Remote screw terminal connector	<b>XS6 18B1MAL01B (3)</b>	0.100
		Remote DIN 43650A connector	<b>XS6 18B1MAL01C</b>	0.100
	NC	Pre-cabled (L = 2 m) (2)	<b>XS6 18B1MBL2</b>	0.100
		1/2"-20UNF connector	<b>XS6 18B1MBU20</b>	0.060
		Remote screw terminal connector	<b>XS6 18B1MBL01B (3)</b>	0.100
		Remote DIN 43650A connector	<b>XS6 18B1MBL01C</b>	0.100
		Remote M18 connector	<b>XS6 18B1MBL01G</b>	0.100

## Ø 30, threaded M30 x 1.5

15	NO	Pre-cabled (L = 2 m) (2)	<b>XS6 30B1MAL2</b>	0.205
		1/2"-20UNF connector	<b>XS6 30B1MAU20</b>	0.145
		Remote screw terminal connector	<b>XS6 30B1MAL01B (3)</b>	0.205
		Remote DIN 43650A connector	<b>XS6 30B1MAL01C</b>	0.205
	NC	Pre-cabled (L = 2 m) (2)	<b>XS6 30B1MBL2</b>	0.205
		1/2"-20UNF connector	<b>XS6 30B1MBU20</b>	0.145
		Remote screw terminal connector	<b>XS6 30B1MBL01B (3)</b>	0.205
		Remote DIN 43650A connector	<b>XS6 30B1MBL01C</b>	0.205
		Remote M18 connector	<b>XS6 30B1MBL01G</b>	0.205

## Accessories (4)

Description	For use with sensors	Reference	Weight kg
Fixing clamps	Ø 12	<b>XSZ B112</b>	0.006
	Ø 18	<b>XSZ B118</b>	0.010
	Ø 30	<b>XSZ B130</b>	0.020

(1) Ø 8 plastic, double insulation, version available: see page 3/60.

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

(3) Protective cable gland included with sensor.

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

# Inductive proximity sensors

OsiSense XS, general purpose

Cylindrical, increased range, flush mountable

Two-wire AC or DC

## Characteristics

Sensor type		XS6●●B1M●U20	XS6●●B1M●L●
Product certifications		UL, CSA, CE	
Connection	Connector	1/2"-20UNF	—
	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 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, IP 67	IP 65 and IP 68, double insulation □
	Conforming to DIN 40050	IP 69K	
Storage temperature		°C	-40...+85
Operating temperature		°C	-25...+70
Materials	Case	Nickel plated brass	
	Sensing face	PPS	
	Cable	PvR 2 x 0.34 mm <sup>2</sup>	
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: annular on pre-cabled version Yellow LED with 4 viewing ports at 90° on connector version	
Rated supply voltage		V	≈ 24...240 (~ 50/60 Hz)
Voltage limits (including ripple)		V	≈ 20...264
Switching capacity	XS6 12B1M●●●	mA	5...200 (2)
	XS6 18B1M●●●	mA	~ 5...300 or ~ 5...200 (2)
	XS6 30B1M●●●	mA	
Voltage drop, closed state		V	≤ 5.5
Residual current, open state		mA	≤ 0.8
Maximum switching frequency (DC/AC)	Ø 12	Hz	~ 1000 / ~ 25
	Ø 18	Hz	~ 1000 / ~ 25
	Ø 30	Hz	~ 500 / ~ 25
Delays	First-up	ms	≤ 25 for Ø 18 and Ø 30 sensors; ≤ 20 for Ø 12 sensors
	Response	ms	≤ 0.5
	Recovery	ms	≤ 0.2 for Ø 12 sensors; ≤ 0.5 for Ø 18 sensors; ≤ 2 for Ø 30 sensors

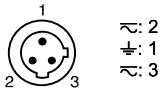
(1) Detection curves, see page 3/116.

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

## Wiring schemes

### Connector (1)

1/2"-20UNF



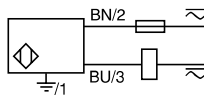
⊖: 2  
⊕: 1  
⊖: 3

### Pre-cabled

BU: Blue  
BN: Brown

### 2-wire ~ or —

NO or NC output



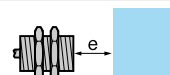
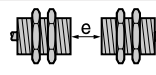
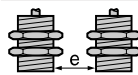
⊕: on connector models only

See connection on page 9/45.

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

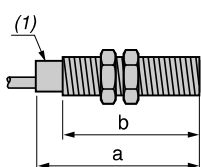
## Setting-up

### Minimum mounting distances (mm)



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

## Dimensions



(1) LED

Sensors	Pre-cabled (mm)		Connector (mm)	
	a	b	a	b
Ø 12 XS6 12B1M●	53	42	62	42
Ø 18 XS6 18B1M●	62	52	73	52
Ø 30 XS6 30B1M●	62	52	73	52