## OsiSense<sup>®</sup>XS Inductive sensors

General purpose with increased range







# Helping you to find the most efficient solution

# The inductive detection function that performs and lasts

The ever increasing needs of machine manufacturers relating to functions required for increased range inductive detection have led us to introduce this new offer to meet your demanding requirements.

### >Easy to install:

Contributes to machine compactness Wider adjustment range

### >Robust:

Assure your solutions will last

### >Reliable and readily available:

Contributes to machine performance

### Contents

Cylindrical inductive proximity sensors

Introduction	p 1 and 2
Selection guide	p 3 to 6
Three-wire DC, flush mountable, standard range	p 7 to 10
Two-wire DC, flush mountable, standard range	p 11 to 14
Two-wire AC or DC, flush mountable, standard range	p 15 and 16
Three-wire DC, flush mountable, increased range	p 17 to 20
Two-wire DC, flush mountable, increased range	p 21 and 22
Two-wire AC or DC, flush mountable, increased range	p 23 and 24
Three-wire DC, non-flush mountable, increased range	p 25 and 26
Two-wire AC or DC, non-flush mountable, increased range	p 27 and 28

NOTE: Sensors described in this catalog are designed to be used for standard industrial presence sensing applications. These sensors do not include the self-checking redundant circuitry necessary to allow for their use in safety applications.

### Make the most of your energy<sup>SM</sup>

### >Contributes to machine compactness

Easy to install:

Compact product (short), easier integration in the machine

- Increased range (x2), sensing distance easier to adjust
- $\bullet$  All standard diameters (complete range, from Ø 6.5 to Ø 30 mm)
- Long and short product lengths to meet most demanding dimension standards on the market
- DC and AC/DC versions available for maximum flexibility

+100% of the sensing distance for flush mountable models



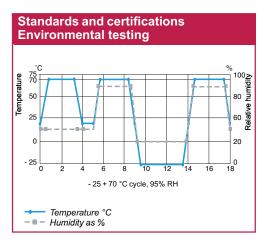
## >Increase the reliability of your solution

**Designed-in Quality:** 

• Subject to climatic cycle tests: -25 to +70 °C (-13 to 158 °F) cycle, 95% RH for 3,000 under power to verify their ability to maintain characteristics over time.

• Resistance to electromagnetic interference - immune to high levels of EMC

• Resistance to environment - IP 65, IP 67 and IP 68 for pre-cabled versions, IP 69K for 12 and 30 mm diameter sensors



### Contributes to machine performance

Reliable and readily available:

- Robust products guaranteed to meet your needs
- Particularly well suited for your machines used in the, machine tooling, assembly, packaging sectors, automotive industry, conveying, etc.









Machine	Tooling

- Proven tried-and-tested performance with world-wide product availability
- You export your machines throughout the world: present in 190 countries, Schneider Electric assures service and product availability wherever you are



General purpose flush or non-flush mountable, standard or increased range:

A Global offer of high-performance inductive sensors to meet your individual needs



XS6..B range Metal AC or DC Increased range 2.5 to 22 mm (0.10 to 0.87 in.) Flush or non-flush mountable



3-wire D

Standard

1.5 to 10

to 0.39

Flush m

Metal





nountable	Flush mountable	Flush mountable
in.)	0.39 in.)	0.59 in.)
0 mm (0.06	2.0 to 10 mm (0.04 to	2.5 to 15 mm (0.10 to
d range	Standard range	Increased range
	Metal	Metal
C	2-wire AC or DC	3-wire DC
_ range	XS5B1M range	XS1range

### Selection guide - General purpose inductive sensors

Flush mountable standard range 1.5 to 10 mm (0.06 to 0.39 in.)			Metal 3-	wire DC	
Format	Ø 6.5 mm plain	Ø 8 mm	Ø 12 mm	Ø 18 mm	Ø 30 mm
Sensing dist., mm (in.)	1.5 (0.06)	1.5 (0.06)	2 (0.08)	5 (0.20)	10 (0.39)
Length Short case	33 (1.30)	33 (1.30)	35 (1.38)	39 (1.54)	43 (1.69)
mm (in.) Long Case	51 (2.01)	51 (2.01)	53 (2.09)	62 (2.44)	62 (2.44)
Connection	2 m cable M8 connector	2 m cable M8 connector M12 connector	2 m cable M12 connector	2 m cable M12 connector	2 m cable M12 connector
Supply, DC	12-24 V, 12-48 V	12-24 V, 12-48 V	12-24 V, 12-48 V	12-24 V, 12-48 V	12-24 V, 12-48 V
Output	PNP or NPN	PNP or NPN	PNP or NPN	PNP or NPN	PNP or NPN
Function	NO or NC	NO or NC	NO or NC	NO or NC	NO or NC
Short case model	XS506B1•••	XS508B1•••	XS512B1•••	XS518B1•••	XS530B1•••
Long case model	XS506BL•••	NOFOODL	VOELODI	XS518BL•••	XS530BL•••
	XOOODE	XS508BL•••	XS512BL•••	XSSIGBL	ASSSUEL
Flush mountable 1.5 to 10 mm (0.0	standard range		Metal	2-wire DC	
Flush mountable	standard range				
Flush mountable	standard range				Ø 30 mm
Flush mountable 1.5 to 10 mm (0.0	standard range 6 to 0.39 in.)		Metal	2-wire DC	
Flush mountable 1.5 to 10 mm (0.0	standard range 6 to 0.39 in.)	Ø 8 mm	Metal	2-wire DC	Ø 30 mm
Flush mountable 1.5 to 10 mm (0.0 Format Sensing dist., mm (in.)	standard range 6 to 0.39 in.) Ø 6.5 mm 1.5 (0.06)	Ø 8 mm 1.5 (0.06)	Metal	<ul> <li>2-wire DC</li> <li>Image: Image: I</li></ul>	Ø 30 mm 10 (0.39)
Flush mountable 1.5 to 10 mm (0.0 Format Sensing dist., mm (in.) Length Short Case	standard range 6 to 0.39 in.) Ø 6.5 mm 1.5 (0.06)	Ø 8 mm 1.5 (0.06) 33 (1.30)	Metal	<ul> <li>2-wire DC</li> <li>Image: Image: I</li></ul>	Ø 30 mm 10 (0.39) 43 (1.69)
Flush mountable 1.5 to 10 mm (0.0 Format Sensing dist., mm (in.) Length Short Case mm (in.) Long Case	standard range 6 to 0.39 in.) Ø 6.5 mm 1.5 (0.06) 33 (1.30) 2 m cable	Ø 8 mm 1.5 (0.06) 33 (1.30) 51 (2.01) 2 m cable	Metal Metal	<ul> <li>2-wire DC</li> <li>2-wire DC</li> <li>4</li> <li>4</li> <li>4</li> <li>5</li> <li>6</li> <li>(2.44)</li> <li>2</li> <li>m cable</li> </ul>	Ø 30 mm 10 (0.39) 43 (1.69) 62 (2.44) 2 m cable
Flush mountable 1.5 to 10 mm (0.0 Format Sensing dist., mm (in.) Length Short Case mm (in.) Long Case Connection	standard range 6 to 0.39 in.) Ø 6.5 mm 1.5 (0.06) 33 (1.30) 2 m cable M12 connector	Ø 8 mm 1.5 (0.06) 33 (1.30) 51 (2.01) 2 m cable M12 connector	Metal         Ø 12 mm         2 (0.08)         35 (1.38)         53 (2.09)         2 m cable         M12 connector	<ul> <li>2-wire DC</li> <li>2-wire DC</li> <li>4</li> <li>4</li> <li>4</li> <li>5</li> <li>6</li> <li>2</li> <li>4</li> <li>2</li> <li>4</li> <li>4</li> <li>4</li> <li>4</li> <li>5</li> <li>4</li> <li>4</li> <li>4</li> <li>4</li> <li>4</li> <li>4</li> <li>4</li> <li>4</li> <li>4</li> <li>5</li> <li>4</li> <li>4</li></ul>	Ø 30 mm 10 (0.39) 43 (1.69) 62 (2.44) 2 m cable M12 connector
Flush mountable 1.5 to 10 mm (0.0 Format Sensing dist., mm (in.) Length Short Case mm (in.) Long Case Connection Supply, DC	standard range 6 to 0.39 in.) Ø 6.5 mm 1.5 (0.06) 33 (1.30) 2 m cable M12 connector 12–24 V, 12–48 V	<ul> <li>Ø 8 mm</li> <li>1.5 (0.06)</li> <li>33 (1.30)</li> <li>51 (2.01)</li> <li>2 m cable M12 connector</li> <li>12-24 V, 12-48 V</li> </ul>	Metal         Image: I	<ul> <li>2-wire DC</li> <li>2-wire DC</li> <li>4</li> <li>4</li> <li>4</li> <li>5</li> <li>62</li> <li>63</li> <li>64</li> <li>64</li></ul>	Ø 30 mm 10 (0.39) 43 (1.69) 62 (2.44) 2 m cable M12 connector 12–24 V, 12–48 V

Long case model

### Flush mountable increased range 2.5 to 15 mm (0.10 to 0.59 in.)

(Metal) (3-wire DC)

Format	Ø 6.5 mm	Ø 8 mm	Ø 12 mm	Ø 18 mm	Ø 30 mm
Sensing dist., mm (in.)	2.5 (0.10)	2.5 (0.10)	4 (0.16)	8 (0.31)	15 (0.59)
Length Short Case	33 (1.30)	33 (1.30)	35 (1.38)	39 (1.54)	43 (1.69)
mm (in.) Long Case		51 (2.01)	53 (2.09)	62 (2.44)	62 (2.44)
Connection	2 m cable M12 connector				
Supply, DC	12-24 V, 12-48 V				
Output	PNP or NPN				
Function	NO or NC				
Short case model	XS106B3•••	XS108B3•••	XS112B3•••	XS118B3•••	XS130B3•••
Long case model		XS608B1•••	XS612B1•••	XS618B1•••	XS630B1•••

(Metal)

2-wire DC

ENT

### Flush mountable increased range 2 to 15 mm (0.08 to 0.59 in.)

Format	Ø 6.5 mm plain	Ø 8 mm	Ø 12 mm	Ø 18 mm	Ø 30 mm
Sensing dist., mm (in.)	2.5 (0.10)	2.5 (0.10)	4 (0.16)	8 (0.31)	15 (0.59)
Length Short case	33 (1.30)	33 (1.30)	35 (1.38)	39 (1.54)	43 (1.69)
mm (in.) Long Case	51 (2.01)	51 (2.01)	53 (2.09)	62 (2.44)	62 (2.44)
Connection	2 m cable M12 connector	2 m cable M8 connector M12 connector	2 m cable M12 connector	2 m cable M12 connector	2 m cable M12 connector
Supply, DC	12–24 V, 12-48 V	12–24 V, 12-48 V	12–24 V, 12-48 V	12–24 V, 12-48 V	12–24 V, 12–48 V
Function	NO or NC	NO or NC	NO or NC	NO or NC	NO or NC
Short case model	XS606B3•••	XS608B3•••	XS612B3•••	XS618B3•••	XS630B3•••
Long case model	XS606B1•••	XS608B1•••	XS612B1•••	XS618B1•••	XS630B1•••

### >Selection guide - continued

PNP or NPN

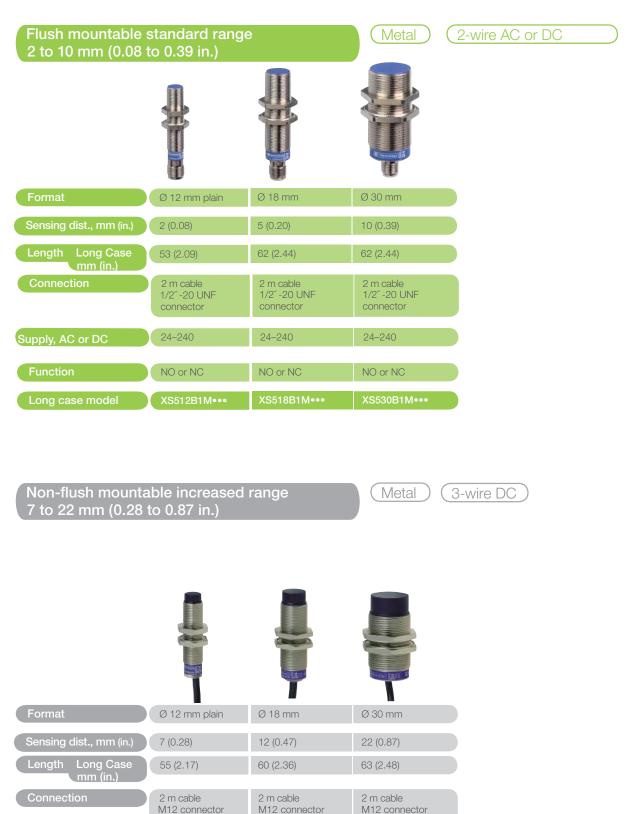
NO or NC

PNP or NPN

NO or NC

PNP or NPN

NO or NC



5

Long case model



### Non-flush mountable increased range <u>12 to 22 mm (0.47 to 0.87 in.)</u>

Metal ) (2-wire AC or DC

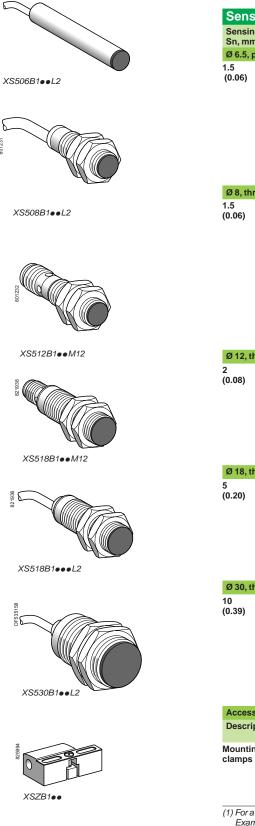


301120

01231

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, standard range, flush mountable Three-wire DC, solid-state output



Sensors, 3	8-wire <u>1</u> 2	2-24 V :	<del></del> , short case mod	el		
Sensing dist.	Function	Output	Connection	Catalog	Weigh	nt
Sn, mm (in.)				Number	kg	(lb)
Ø 6.5, plain						
1.5	NO	PNP	Pre-cabled (L = 2 m) $(1)$	XS506B1PAL2	0.035	(0.08)
(0.06)			M8 connector	XS506B1PAM8	0.025	(0.06)
			M12 connector	XS506B1PAM12	0.025	(0.06)
		NPN	Pre-cabled $(L = 2 m) (1)$	XS506B1NAL2	0.035	(0.08)
			M8 connector	XS506B1NAM8	0.025	(0.06)
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS506B1PBL2	0.035	(0.08)
			M8 connector	XS506B1PBM8	0.025	(0.06)
		NPN	Pre-cabled (L = 2 m) $(1)$	XS506B1NBL2	0.035	(0.08)
			M8 connector	XS506B1NBE2	0.035	(0.00)
~~ · · · ·			Wo connector	X3300D INDINO	0.025	(0.00)
Ø 8, threaded I		DND		VOEADDADA	0.005	(0,00)
1.5 (0.06)	NO	PNP	Pre-cabled (L = 2 m) $(1)$	XS508B1PAL2	0.035	(0.08)
(0.00)			M8 connector	XS508B1PAM8	0.025	(0.06)
		NPN	M12 connector	XS508B1PAM12	0.025	(0.06)
		INFIN	$\frac{\text{Pre-cabled (L = 2 m) (1)}}{\text{M8 connector}}$	XS508B1NAL2 XS508B1NAM8	0.035	(0.08)
			M12 connector	XS508B1NAM8 XS508B1NAM12	0.025	(0.06)
	NC	PNP	Pre-cabled (L = 2 m) $(1)$	XS508B1NAM12 XS508B1PBL2	0.025	(0.08)
	NO		M8 connector	XS508B1PBM8	0.025	(0.06)
			M12 connector	XS508B1PBM12	0.025	(0.06)
		NPN	Pre-cabled (L = 2 m) $(1)$	XS508B1NBL2	0.035	(0.08)
			M8 connector	XS508B1NBM8	0.025	(0.06)
			M12 connector	XS508B1NBM12	0.025	(0.06)
Ø 12, threaded	M12 x 1					(0.00)
2	NO	PNP	Pre-cabled (L = 2 m) $(1)$	XS512B1PAL2	0.075	(0.17)
_ (0.08)			M12 connector	XS512B1PAM12	0.035	(0.08)
		NPN	Pre-cabled (L = 2 m) $(1)$	XS512B1NAL2	0.075	(0.17)
			M12 connector	XS512B1NAM12	0.035	(0.08)
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS512B1PBL2	0.075	(0.17)
			M12 connector	XS512B1PBM12	0.035	(0.08)
		NPN	Pre-cabled $(L = 2 m) (1)$	XS512B1NBL2	0.075	(0.17)
			M12 connector	XS512B1NBM12	0.035	(0.08)
Ø 18, threaded	M18 x 1					, ,
5	NO	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS518B1PAL2	0.120	(0.26)
(0.20)			M12 connector	XS518B1PAM12	0.060	(0.13)
		NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS518B1NAL2	0.120	(0.26)
			M12 connector	XS518B1NAM12	0.060	(0.13)
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS518B1PBL2	0.120	(0.26)
			M12 connector	XS518B1PBM12	0.060	(0.13)
		NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS518B1NBL2	0.120	(0.26)
			M12 connector	XS518B1NBM12	0.060	(0.13)
Ø 30, threaded	M30 x 1.5					
10	NO	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS530B1PAL2	0.205	(0.45)
(0.39)			M12 connector	XS530B1PAM12	0.145	(0.32)
		NPN	Pre-cabled (L = 2 m) (1)	XS530B1NAL2	0.205	(0.45)
			M12 connector	XS530B1NAM12	0.145	(0.32)
	NC	PNP	Pre-cabled (L = 2 m) (1)	XS530B1PBL2	0.205	(0.45)
			M12 connector	XS530B1PBM12	0.145	(0.32)
		NPN	Pre-cabled $(L = 2 m) (1)$	XS530B1NBL2	0.205	(0.45)
			M12 connector	XS530B1NBM12	0.145	(0.32)
						. ,
Accessories						
Description		For use v	vith	Catalog	Weigh	
		sensors		Number	kg	(lb)
Mounting		Ø 6.5 (pla	an)	XSZ B165	0.005	(0.01)

XSZB108

XSZB112

XSZB118

0.006

0.006

0.010

0.020

(0.01)

(0.01)

(0.02)

(0.02)

Ø 30 XSZB130 (1) For a 5 m long replace L2 with L5; for a 10 m cable replace L2 with L10. Example: XS508B1PAL2 becomes XS508B1PAL5 with a 5 m cable.

Ø 8

Ø 12

Ø 18

#### OsiSense<sup>®</sup> Inductive proximity sensors General purpose

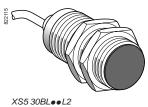
Cylindrical, standard range, flush mountable Three-wire DC, solid-state output

	st. Function	Output	Connection	Catalog
Sn, mm (in.				Number
Ø 6.5, plain		DUD		NOSOODI DAL
1.5 (0.06)	NO	PNP	Pre-cabled $(L = 2 m) (1)$	XS506BLPAL
(0.00)		NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS506BLNAL
Ø 8, thread				
1.5	NO	PNP	Pre-cabled (L = 2 m) $(1)$	XS508BLPAL
(0.06)			M12 connector	XS508BLPAN
		NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS508BLNAL
		BNB	M12 connector	XS508BLNA
	NC	PNP	Pre-cabled (L = 2 m) $(1)$	XS508BLPBL
			M12 connector Pre-cabled (L = 2 m) (1)	XS508BLPB
		NPN	$\frac{\text{Pre-cabled (L = 2 m) (1)}}{\text{M12 connector}}$	XS508BLNBL XS508BLNB
~ 10 J				
Ø 12, threa	ded M12 x 1 NO	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	VS512DI DAI
2 (0.08)	NO	FINE	$\frac{\text{Pre-cabled (L = 2 III) (1)}}{\text{M12 connector}}$	XS512BLPAL
,		NPN	Pre-cabled (L = 2 m) $(1)$	XS512BLPAN XS512BLNAI
		INFIN	$\frac{\text{Pre-cabled (L = 2 m) (1)}}{\text{M12 connector}}$	XS512BLNA
	NC	PNP	Pre-cabled (L = 2 m) $(1)$	XS512BLRA
	NC		M12 connector	XS512BLPB
		NPN	Pre-cabled (L = 2 m) $(1)$	XS512BLNB
			M12 connector	XS512BLNB
Ø 18, threa				
5	NO	PNP	Pre-cabled (L = 2 m) (1)	XS518BLPAI
(0.20)			M12 connector	XS518BLPA
		NPN	Pre-cabled (L = 2 m) $(1)$	XS518BLNA
			M12 connector	XS518BLNA
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS518BLPB
			M12 connector	XS518BLPB
		NPN	Pre-cabled (L = 2 m) $(1)$	XS518BLNB
			M12 connector	XS518BLNB
Ø 30, threa	ded M30 x 1.5			
10	NO	PNP	Pre-cabled (L = 2 m) (1)	XS530BLPA
(0.39)			M12 connector	XS530BLPA
		NPN	Pre-cabled (L = 2 m) $(1)$	XS530BLNA
			M12 connector	XS530BLNA
	NC	PNP	Pre-cabled (L = 2 m) $(1)$	XS530BLPB
			M12 connector	XS530BLPB
		NPN	Pre-cabled $(L = 2 m) (1)$	XS530BLNB
			M12 connector	XS530BLNB
Accessorie				
Description	ı	For use sensors		Catalog Number
		Ø 6.5 (pla		XSZ B165
Mounting		Ø8		XSZB108
Mounting clamps				V67D440
		Ø 12		XSZB112
		Ø 12 Ø 18		XSZB112 XSZB118



**D** 1120





Weight

0.035

0.035

0.035

0.025

0.035

0.025

0.035

0.025

0.035

0.025

0.075

0.035

0.075

0.035

0.075

0.035

0.075

0.035

0.120

0.060

0.120

0.060

0.120

0.060

0.120

0.060

0.205

0.145

0.145

0.205

0.145

0.205

0.145

0.006

0.006

0.010

0.020

**kg** 0.005

Weight

kg

(lb)

(0.08)

(0.08)

(0.08)

(0.06)

(0.08)

(0.06)

(0.08)

(0.06)

(0.08)

(0.06)

(0.17)

(0.08)

(0.17)

(0.08)

(0.17)

(0.08)

(0.17)

(0.08)

(0.26)

(0.13)

(0.26)

(0.13)

(0.26)

(0.13)

(0.26)

(0.13)

(0.45) (0.32)

(0.45)

(0.32)

(0.45)

(0.32)

(0.45)

(0.32)

(lb)

(0.01)

(0.01)

(0.01)

(0.02)

(0.04)

#### Specifications

## **OsiSense® Inductive**

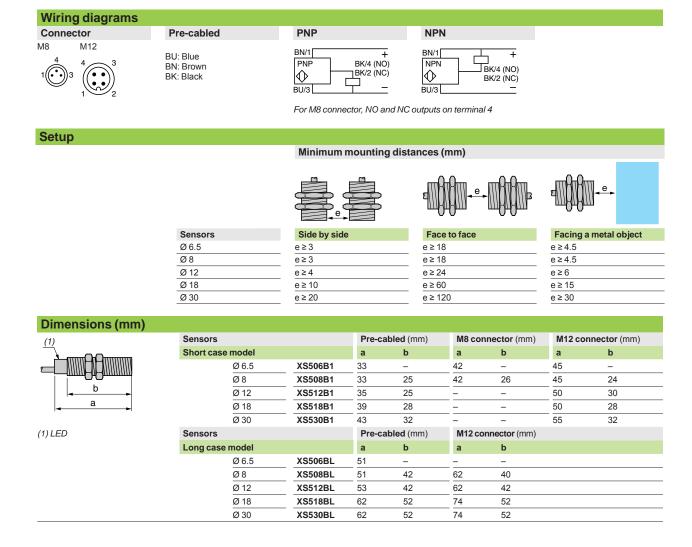
**proximity sensors** General purpose Cylindrical, standard range, flush mountable Three-wire DC, solid-state output

Specifications					
Sensor type			XS5••B1••M8, XS5••B1••M12 XS5••BL••M8, XS5••BL••M12	XS5••B1••L2 XS5••BL••L2	
Product certifications			UL, CSA, C€		
Connection	Connector		M8 on Ø 6.5 and Ø 8, M12 on Ø 8, Ø 12, Ø 18 and Ø 30	-	
	Pre-cabled		-	Length 2 m	
Operating zone	Ø 6.5 and Ø 8	mm	0–1.2 (0–0.05 in.)		
	Ø 12	mm	0-1.6 (0-0.06 in.)		
	Ø 18	mm	0–4 (0–0.28 in.)		
	Ø 30	mm	0–8 (0–0.31 in.)		
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 to Ø 30		
Storage temperature		°C	- 40 to + 85 (-40 to +185 °F)		
Operating temperature		°C	- 25 to + 70 (-13 to +158 °F)		
Materials	Case		Nickel plated brass (except XS5 06 and XS5 08BL: stainless steel, grade 303)		
	Sensing face		PPS		
	Cable		-	PvR 3 x 0.34 mm <sup>2</sup> (22 AWG) except <b>XS50</b> and <b>XS508</b> : 3 x 0.11 mm <sup>2</sup> (27 AWG)	
Vibration resistance	Conforming to IEC 60068-2-6		25 gn, amplitude ± 2 mm (f = 10 to 50 H	z)	
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	1248 for XS5••BL, 1224 for XS5 ••B1 with protection against reverse polarity		
Voltage limits (including r	ipple)	v	10–58 for XS5••BL, 10–36 for XS5••B1		
Switching capacity		mA	≤ 200 with overload and short-circuit pro	otection	
Voltage drop, closed state	<u>;</u>	v	≤2		
Current consumption, no-	load	mA	≤ 10		
Maximum switching	XS506, XS508, XS512	Hz	5000		
frequency	XS518	Hz	2000		
	XS530	Hz	1000		
Delays	First-up	ms	≤ 10		
	Response	ms	≤ 0.1 : XS506 , XS508 and XS512 ≤ 0.15 : XS518 ≤ 0.3 : XS530		
	Recovery	ms	≤ 0.1 : XS506, XS508 and XS512 ≤ 0.35 : XS518 ≤ 0.7 : XS530		

#### Wiring diagrams, setup, dimensions

## OsiSense<sup>®</sup> Inductive proximity sensors

General purpose Cylindrical, standard range, flush mountable Three-wire DC, solid-state output



### **OsiSense® Inductive proximity sensors** General purpose Cylindrical, standard range, flush mountable

Two-wire DC





XS512BSeeL2



XS5••BS••M12



XSZB1..

Sensors,	2-wire 12-24	V, short case m	odel		
Sensing dist.	Function	Connection	Catalog	Weigh	
Sn, mm (in.)			Number	kg	(lb)
Ø 6.5, plain					
1.5 (0.06)	NO	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS506BSCAL2	0.035	(0.08)
		Remote M12 connector	XS506BSCAL01M12	0.050	(0.11)
	NC	Pre-cabled (L = 2 m) (1)	XS506BSCBL2	0.035	(0.08)
Ø 8, threaded	M8 x 1				
1.5 (0.06)	NO	Pre-cabled (L = 2 m) (1)	XS508BSCAL2	0.035	(0.08)
	terminals 1 & 4 (2)	Remote M12 connector	XS508BSCAL01M12	0.050	(0.11)
		Remote M12 connector	XS508BSCAL08M12	0.050	(0.11)
	NC	Pre-cabled (L = 2 m) (1)	XS508BSCBL2	0.035	(0.08)
		Remote M12 connector	XS508BSCBL01M12	0.050	(0.11)
Ø 12, threaded	d M12 x 1				
2 (0.08)	NO	Pre-cabled (L = 2 m) (1)	XS512BSDAL2	0.075	(0.17)
		M12 connector	XS512BSDAM12	0.035	(0.08)
	NO	M12 connector	XS512BSCAM12	0.035	(0.08)
	terminals 1 & 4 (2)	Remote M12 connector	XS512BSCAL08M12	0.060	(0.13)
	NC	Pre-cabled (L = 2 m) (1)	XS512BSDBL2	0.075	(0.17)
		M12 connector	XS512BSDBM12	0.035	(0.08)
Ø 18, threaded	d M18 x 1				
5 (0.20)	NO	Pre-cabled (L = 2 m) (1)	XS518BSDAL2	0.120	(0.26)
		M12 connector	XS518BSDAM12	0.060	(0.13)
	NO	M12 connector	XS518BSCAM12	0.060	(0.13)
	terminals 1 & 4 (2)	Remote M12 connector	XS518BSCAL08M12	0.085	(0.19)
	NC	Pre-cabled (L = 2 m) (1)	XS518BSDBL2	0.120	(0.26)
		M12 connector	XS518BSDBM12	0.060	(0.13)
Ø 30, threaded	d M30 x 1.5				
10 (0.39)	NO	Pre-cabled (L = 2 m) (1)	XS530BSDAL2	0.205	(0.45)
		M12 connector	XS530BSDAM12	0.145	(0.32)
	NO	M12 connector	XS530BSCAM12	0.145	(0.32)
	terminals 1 & 4 (2)	Remote M12 connector	XS530BSCAL08M12	0.170	(0.37)
	NC	Pre-cabled (L = 2 m) (1)	XS530BSDBL2	0.205	(0.45)
		M12 connector	XS530BSDBM12	0.145	(0.32)
Accessories					

Accessories				
Description	For use with	Catalog	Weigh	
	sensors	Number	kg	(lb)
Mounting	Ø 6.5 (plain)	XSZ B165	0.005	(0.01)
clamps	Ø 8	XSZB108	0.006	(0.01)
	Ø 12	XSZB112	0.006	(0.01)
	Ø 18	XSZB118	0.010	(0.02)
	Ø 30	XSZB130	0.020	(0.04)

For a 5 m long cable replace L2 by L5; for a 10 m cable replace L2 with L10. Example: XS508BSCAL2 becomes XS508BSCAL5 with a 5 m cable.
 The NO output is connected to terminals 1 and 4 of the M12 connector.

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, standard range, flush mountable Two-wire DC

Soneind	Function	Connection	Catalog	Weig	ht
distance Sn, mm (in.)	i unouon		Number	kg	(lb
	ded M8 x 1				
1.5 (0.06)	NO	Pre-cabled (L = 2 m) (1)	XS508B1DAL2	0.035	(0.0
L2		Remote M12 connector	XS508B1DAL08M12		(0.1
LZ		M12 connector	XS508B1DAM12	0.025	(0.0
	NO	M12 connector	XS508B1CAM12	0.025	(0.0
	terminals 1 & 4 (3	Remote M12 connector	XS508B1CAL08M12	0.050	(0.1
	NC	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS508B1DBL2	0.035	(0.0
		M12 connector	XS508B1DBM12	0.025	(0.0
Ø 12, three	aded M12 x 1				
2 (0.08)	NO	Pre-cabled (L = 2 m) $(1)$	XS512B1DAL2	0.075	(0.
		Remote 7/8" connector	XS512B1DAL08U78	0.050	(0.
M12		M12 connector	XS512B1DAM12	0.035	(0.0
	NO	M12 connector	XS512B1CAM12	0.035	(0.0
	terminals 1 & 4 (3	Remote M12 connector	XS512B1CAL08M12		(0.
	NC	Pre-cabled (L = 2 m) $(1)$	XS512B1DBL2	0.075	(0.
		M12 connector	XS512B1DBM12	0.035	(0.
		Remote M12 connector	XS512B1DBL08M12		(0.
Ø 18, three	aded M18 x 1				
5 (0.20)	NO	Pre-cabled (L = 2 m) (1)	XS518B1DAL2	0.120	(0.:
		Low temperature version (- 40 °C)			(0.2
		Remote screw terminal connector (2	( )	0.085	(0.1
le de la companya de		Remote DIN 43650A connector	XS518B1DAL01C	0.085	(0.
•L01B(2)		Remote M18 connector	XS518B1DAL01G	0.085	(0.
		M12 connector	XS518B1DAM12	0.060	(0.1
	NO	M12 connector	XS518B1CAM12	0.060	(0.
	terminals 1 & 4 (3	Remote M12 connector	XS518B1CAL08M12	0.085	(0.1
	NC	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS518B1DBL2	0.120	(0.2
		M12 connector	XS518B1DBM12	0.060	(0.1
		Remote M12 connector	XS518B1DBL08M12	0.085	(0.1
		Remote screw terminal connector (2)	) XS518B1DBL01B	0.120	(0.2
Ø 30, three	aded M30 x 1.5				
10 (0.39)	NO	Pre-cabled (L = 2 m) (1)	XS530B1DAL2	0.205	(0.4
		Low temperature version (- 40 °C)	XS530B1DAL2TF (4)	0.120	(0.2
01C		M12 connector	XS530B1DAM12	0.145	(0.3
		Remote screw terminal connector (2)	XS530B1DAL01B	0.205	(0.4
		Remote DIN 43650A connector	XS530B1DAL01C	0.205	(0.4
		Remote M18 connector	XS530B1DAL01G	0.205	(0.4
	NO	M12 connector	XS530B1CAM12	0.145	(0.3
		Remote M12 connector	XS530B1CAL08M12		(0.3
	NC	$\frac{\text{Pre-cabled (L = 2 m) (1)}}{\text{Pre-cabled (L = 2 m) (1)}}$	XS530B1DBL2	0.205	(0.4
		M12 connector	XS530B1DBM12	0.145	(0.3
		Remote screw terminal connector (2)	XS530B1DBL01B	0.205	(0.3
Accessori					
Description	on	For use with	Catalog Number	Weig	
Mounting	lamne	ø 8	XSZB108	<b>kg</b> 0.006	<b>(  </b> (0.0)
<u> </u>	Jailips	Ø 8 Ø 12	XSZB108 XSZB112	0.006	(0.0
01G		Ø 12 Ø 18	XSZB112 XSZB118	0.000	(0.0
		Ø 30	XSZB130	0.010	(0.0
Example É	e: XŠ508B1DAL2	e L2 with L5; for a 10 m long cable rep becomes XS508B1DAL5 with a 5 luded with remote screw terminal co	place L2 with <b>L10</b> . m long cable.	0.020	

XSZB1..

Example: XS518B1DAL21F becomes XS518B1DAL51F with a 5 m long cable. For PUR cable, replace the letter L in the reference with P. Example: XS518B1DAL2TF becomes XS518B1DAP2TF with PUR cable. For a 5 m long PUR cable replace P2 with P5. Example: XS518B1DAP2TF becomes XS518B1DAP5TF with a 5 m long PUR cable.

#### Specifications

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, standard range, flush mountable Two-wire DC

Specifications						
Sensor type			XS500B100M12, XS500BS00M12	XS5eeB1DeL2, XS5eeBSDeL2		
Product certifications		_	UL, CSA, CE			
Connection	Connector		M12	-		
	Pre-cabled		-	Length 2 m		
	Remote connector		Remote M12 connector (L01M12), screw terminal (L01B), DIN 43650A (L01C) a remote M18 connector (L01G) on 0.15 m flying lead. Remote M12 (L08M12) or 7/8" (L08U78) connector on 0.80 m flying lead.			
Operating zone	Ø 6.5	mm	0–1.2 (0–0.05 in.)			
	Ø 8	mm	0–1.2 (0–0.05 in.)			
	Ø 12	mm	0–1.6 (0–0.06 in.)			
	Ø 18	mm	0-4 (0-0.16 in.)			
	Ø 30	mm	0-8 (0-0.31 in.)			
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)		
Storage temperature		°C	- 40 to + 85 (-40 to +185 °F)			
Operating temperature		°C	- 25 to + 70 (-13 to +158 °F); TF products: - 40 to + 70 (-40 to +158 °F)			
Materials	Case		Nickel plated brass (except XS5 06 and	XS5 08B1: stainless steel, grade 303)		
	Sensing face		PPS			
	Cable		-	PvR 2 x 0.34 mm <sup>2</sup> (22 AWG) (except XS5 06 and XS5 08: 2 x 0.11 mm <sup>2</sup> (27 AWG) PUR available (1)		
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				
Voltage limits (including	ripple)	v	1058 for XS5••B1D, 1036 for XS5••BS			
Switching capacity		mA	1.5100 with overload and short-circuit protection			
Voltage drop, closed sta	te	V	≤4			
Residual current, open s	state	mA	≤0.5			
Maximum switching	XS506, XS508, XS512	Hz	4000			
frequency	XS518	Hz	3000			
	XS530	Hz	2000			
Delays	First-up	ms	≤ 10			
<b>, -</b>	Response	ms	≤ 0,2 : XS506, XS508 and XS512 ≤ 0,15 : XS518 ≤ 0,3 : XS530			
	Recovery	ms	≤ 0.2 (except <b>XS530B1</b> : ≤ 0.3)			

or PUR cable, replace the letter L in the reference with **P**. Example: XS506BSDAL2 becomes **XS5 06BSDAP2** with PUR c

#### Wiring diagrams, setup, dimensions

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, standard range, flush mountable Two-wire DC

Wiring diagrams				
Connector	Pre-cabled	2-wire non-polarized		
M12	BU: Blue	NO output		NC output
	BN: Brown	XS5eeB1DAeee	XS5eeB1CAeee	XS5eeB1DBeee
		BN/3 +/- BU/4 -/+	BN/1 +/- BU/4 -/+	BN/1 +/-
		2-wire polarized		
		NO output		NC output
		XS508BSCA.		XS508BSCB
		BN/1 +		BN/1 +
Remote connectors LO1B	, LO1C, LO1G			
Screw terminal (LO1B)	Screw terminal (LO1B)		M18 (LO1G)	
The terminal numbering differs according to the version ( 2-wire, 3-wire, $-$ 2-wire).		The NO or NC outputs are connected to terminal 2.		
		connected to terminal z.		
Setup				
		Minimum mounting dist	ances (mm)	
				₽
		Side by side	Face to face	Facing a metal object
	Ø 6.5	e≥3	e≥18	e≥4.5
	Ø 8	e≥3	e≥18	e≥4.5

- D - 1		7 N
Dime	ensions	(mm)
	11310113	(

)	Sensors			Pre-cabled (mm)		M8 connector (mm)		M12 connector (mm)	
	Short case mode	1	а	b	а	b	а	b	
	Ø 6.5	XS506BS	33	_	42	_	45	_	
	Ø8	XS508BS	33	25	42	26	45	24	
b b	Ø 12	XS512BS	35	25	_	_	50	30	
<b>→</b> a	Ø 18	XS518BS	39	28	_	_	50	28	
	Ø 30	XS530BS	43	32	_	_	55	32	
LED	Sensors		Pre-ca	abled (mm)	M12 cc	onnector (mm)			
	Long case model	l i i i i i i i i i i i i i i i i i i i	а	b	а	b			
	Ø 8	XS508B1	51	42	62	40			
	Ø 12	XS512B1	53	42	62	42			
	Ø 18	XS518B1	62	52	74	52			
	Ø 30	XS530B1	62	52	74	52			

e ≥ 24

e≥60

e ≥ 120

Ø 12

Ø 18

Ø 30

e≥4

e ≥ 10

e ≥ 20

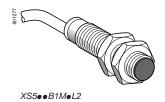
e≥6

e≥15

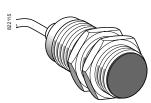
e ≥ 30

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, standard range, flush mountable Two-wire AC or DC (1)







XS530B1••L2



Sensors, 2-wire 24-240 V 🖚, long case model								
Ø 12, threaded M12	2x1							
Sensing distance	Function	Connection	Catalog	Weigh				
Sn, mm (in.)			Number	kg	(lb)			
2 (0.08)	NO	Pre-cabled (L = 2 m) $(1)$	XS512B1MAL2	0.075	(0.17)			
		1/2"-20UNF connector	XS512B1MAU20	0.025	(0.06)			
	NC	Pre-cabled (L = 2 m) (1)	XS512B1MBL2	0.075	(0.17)			
		1/2"-20UNF connector	XS512B1MBU20	0.025	(0.06)			

Ø 18, threaded M18	3 x 1				
Sensing distance Sn, mm (in.)	Function	Connection	Catalog Number	Weigl kg	nt (Ib)
5 (0.20)	NO	Pre-cabled (L = 2 m) $(1)$	XS518B1MAL2	0.100	(0.22)
		1/2"-20UNF connector	XS518B1MAU20	0.060	(0.13)
	NC	Pre-cabled (L = 2 m) $(1)$	XS518B1MBL2	0.100	(0.22)
		1/2"-20UNF connector	XS518B1MBU20	0.060	(0.13)

Ø 30, threaded M30	) x 1.5				
Sensing distance Sn, mm (in.)	Function	Connection	Catalog Number	Weigl kg	ht (Ib)
10 (0.39)	NO	Pre-cabled (L = 2 m) $(1)$	XS530B1MAL2	0.205	(0.45)
		1/2"-20UNF connector	XS530B1MAU20	0.145	(0.32)
	NC	Pre-cabled (L = 2 m) $(1)$	XS530B1MBL2	0.205	(0.45)
		1/2"-20UNF connector	XS530B1MBU20	0.145	(0.32)

Accessories				
Description	For use with sensors	Catalog Number	Weigl kg	ht (Ib)
Mounting clamps	Ø 12	XSZB112	0.006	(0.01)
	Ø 18	XSZB118	0.010	(0.02)
	Ø 30	XSZB130	0.020	(0.04)

(1) For a 5 m long cable replace L2 with L5; for a 10 m cable replace L2 with L10. Example: XS512B1MAL2 becomes XS512B1MAL5 with a 5 m cable.

### Specifications, wiring diagrams, setup, dimensions

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, standard range, flush mountable Two-wire AC or DC

Sensor type			XS5eeB1MeU20	XS5eeB1MeL2
Product certifications			UL, CSA, CE	
Connection	Connector		1/2"-20UNF	-
	Pre-cabled		-	Length 2 m
Operating zone	Ø 12	mm	0–1.6 (0–0.05 in.)	
	Ø 18	mm	0–4 (0–0.16 in.)	
	Ø 30	mm	0–8 (0–0.31 in.)	
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 🗉
	Conforming to DIN 40050		IP 69K	
Storage temperature		°C	- 40 to + 85 (-40 to +185 °F)	
Operating temperature		°C	- 25 to + 70 (-13 to +158 °F)	
Materials	Case		Nickel plated brass	
	Sensing face		PPS	
	Cable		-	PvR 2 x 0.34 mm 2 (22 AWG)
Vibration resistance	Conforming to IEC 60068-2-6		25 gn, amplitude $\pm$ 2 mm (f = 10 to 55 Hz	2)
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	$\sim$ or == 24240 ( $\sim$ 50/60 Hz)	
Voltage limits (including ripple)		v	$\sim$ or == 20–264	
Switching capacity	XS512B1Meee	mA	5200 (1)	
	XS518B1Meee, XS530B1Meee	mA	$\sim$ 5300 or == 5200 (1)	
Voltage drop, closed state		v	≤5.5	
Residual current, open sta	ate	mA	≤0.8	
Maximum switching	XS512B1eee, XS518B1Meee	Hz	$\sim$ 25 or $=$ 1000	
frequency	XS530B1Meee	Hz	$\sim$ 25 or == 500	
Delays	First-up	ms	≤ 20 XS512B1M●●●, ≤ 25 XS518B1M●●● and XS530B1M●●	•
	Response	ms	≤0.5	
	Recovery	ms	≤ 0.2 XS512B1M●●●, ≤ 0.5 XS518B1M●●●, ≤ 2 XS530B1M●●●	
		(1) It is	sessential to connect a 0.4 A "quick-blow"	fuse in series with the load.
Wiring diagrams				
Connector	Pre-cabled	2-wi	re $\sim$ or $=$	
1/2"-20UNF	BU: Blue		r NC output	
1	BN: Brown	1100		
$ \begin{array}{c}                                     $				
		⊥·on	connector models only	
		= . ON		
Setup		÷. 01		

Minimum mounting distances (n	n
-------------------------------	---

z de la companya de l	



Facing a metal object

e ≥ 12

e≥25

e≥45

		00
Sensor	Side by side	Face to face
Ø 12	e ≥ 8	e ≥ 48
Ø 18	e≥16	e ≥ 100
Ø 30	e≥30	e≥180

U	00	
to face		
0		
0		

#### **Dimensions (mm)**

Sensor	Pre-cabled (mm)		Conne	Connector (mm)	
	а	b	а	b	
XS512B1M	53	42	62	42	
XS518B1M	62	52	73	52	
XS530B1M	62	52	73	52	
	XS512B1M XS518B1M	XS512B1M         53           XS518B1M         62	a         b           XS512B1M         53         42           XS518B1M         62         52	a         b         a           XS512B1M         53         42         62           XS518B1M         62         52         73	

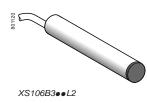
Ø 30

(1) LED

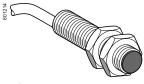
## **OsiSense® Inductive proximity sensors** General purpose Cylindrical, increased range, flush mountable Three-wire DC, solid-state output

Sensing	Function	Output	Connection	Sold in	Catalog	Weight		
distance Sn, mm (in.)				lots of	Number	kg	(lb)	
Ø 6.5, pla	ain							
2.5 (0.10)		PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS106B3PAL2	0.060	(0.1	
2.0 (0.10)	NO		M8 connector	1	XS106B3PAM8	0.030	(0.0)	
			M12 connector	1	XS106B3PAM12	0.050	(0.1	
			Pre-cabled (L = 2 m)	20	XS106B3PAL2TQ	0.980	(2.1	
			M8 connector	20	XS106B3PAM8TQ	0.320	(0.7	
		NPN	Pre-cabled (L = 2 m)	1	XS106B3NAL2	0.060	(0.1	
			M8 connector	1	XS106B3NAM8	0.030	(0.0)	
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS106B3PBL2	0.060	(0.1	
			M8 connector	1	XS106B3PBM8	0.030	(0.0	
		NPN	Pre-cabled (L = 2 m)	1	XS106B3NBL2	0.060	(0.1	
			M8 connector	1	XS106B3NBM8	0.030	(0.0	
Ø 8, threa	aded M8 x	1						
2.5 (0.10)		PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS108B3PAL2	0.070	(0.1	
			M8 connector	1	XS108B3PAM8	0.030	(0.0	
			M12 connector	1	XS108B3PAM12	0.060	(0.1	
			Pre-cabled (L = 2 m)	20	XS108B3PAL2TQ	1.120	(2.4	
			M8 connector	20	XS108B3PAM8TQ	0.460	(1.0	
			M12 connector	20	XS108B3PAM12TQ	0.940	(2.0	
		NPN	Pre-cabled $(L = 2 m) (1)$	1	XS108B3NAL2	0.070	(0.1	
			M8 connector	1	XS108B3NAM8	0.030	(0.0	
			M12 connector	1	XS108B3NAM12	0.060	(0.1	
			Pre-cabled (L = 2 m)	20	XS108B3NAL2TQ	1.120	(2.4	
			M8 connector	20	XS108B3NAM8TQ	0.460	(1.0	
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS108B3PBL2	0.070	(0.1	
			M8 connector	1	XS108B3PBM8	0.030	(0.0	
			M12 connector	1	XS108B3PBM12	0.060	(0.1	
		NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS108B3NBL2	0.070	(0.1	
			M8 connector	1	XS108B3NBM8	0.030	(0.0	
			M12 connector	1	XS108B3NBM12	0.060	(0.1	
Ø 12, thre	eaded M12	1 x 1						
(0.16)	NO	PNP	Pre-cabled (L = 2 m) $(1)$	1	XS112B3PAL2	0.090	(0.2	
			M12 connector	1	XS112B3PAM12	0.030	(0.0	
			Pre-cabled (L = 2 m)	20	XS112B3PAL2TQ	1.600	(3.5	
			M12 connector	20	XS112B3PAM12TQ	0.470	(1.0	
		NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS112B3NAL2	0.090	(0.2	
			M12 connector	1	XS112B3NAM12	0.030	(0.0	
			Pre-cabled (L = 2 m)	20	XS112B3NAL2TQ	1.600	(3.5	
			M12 connector	20	XS112B3NAM12TQ	0.470	(1.0	
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS112B3PBL2	0.090	(0.2	
			M12 connector	1	XS112B3PBM12	0.030	(0.0	
			M12 connector	20	XS112B3PBM12TQ	0.470	(1.0	
		NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS112B3NBL2	0.090	(0.2	
			M12 connector	1	XS112B3NBM12	0.030	(0.0	

(1) For a 5 m cable replace L2 with L5. Example: XS106B3PAL2 becomes XS106B3PAL5 with a 5 m cable.







XS112B3••L2

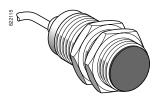
## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, increased range, flush mountable Three-wire DC, solid-state output

XS118B3••M12



XS118B3••L2



XS130B3••L2



XSZB1..

Senso	rs, 3- <u>w</u> i	ire 12-	24 V <del></del> , short cas	e mod	el (continued)		
Sensing distance Sn, mm (in.)		Output	Connection	Sold in lots of	Catalog Number	Weigh kg	nt (Ib)
. ,	eaded M18	x 1					
8 (0.31)	NO	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS118B3PAL2	0.110	(0.24)
			M12 connector	1	XS118B3PAM12	0.060	(0.13)
			Pre-cabled (L = 2 m)	20	XS118B3PAL2TQ	2.000	(4.41)
			M12 connector	20	XS118B3PAM12TQ	1.140	(2.51)
		NPN	Pre-cabled (L = 2 m) $(1)$	1	XS118B3NAL2	0.110	(0.24)
			M12 connector	1	XS118B3NAM12	0.060	(0.13)
			Pre-cabled (L = 2 m)	20	XS118B3NAL2TQ	2.000	(4.41)
			M12 connector	20	XS118B3NAM12TQ	1.140	(2.51)
	NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS118B3PBL2	0.110	(0.24)
			M12 connector	1	XS118B3PBM12	0.060	(0.13)
		NPN	Pre-cabled (L = 2 m) (1)	1	XS118B3NBL2	0.110	(0.24)
			M12 connector	1	XS118B3NBM12	0.060	(0.13)
Ø 30, thr	eaded M30	x 1.5					
15 (0.59)	NO	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	1	XS130B3PAL2	0.180	(0.40)
			M12 connector	1	XS130B3PAM12	0.130	(0.29)
			Pre-cabled (L = 2 m)	20	XS130B3PAL2TQ	3.360	(7.41)
			M12 connector	20	XS130B3PAM12TQ	2.000	(4.41)
		NPN	Pre-cabled (L = 2 m) $(1)$	1	XS130B3NAL2	0.180	(0.40)
			M12 connector	1	XS130B3NAM12	0.130	(0.29)
			M12 connector	20	XS130B3NAM12TQ	2.000	(4.41)
	NC	PNP	Pre-cabled (L = 2 m) $(1)$	1	XS130B3PBL2	0.180	(0.40)
			M12 connector	1	XS130B3PBM12	0.130	(0.29)
		NPN	Pre-cabled (L = 2 m) $(1)$	1	XS130B3NBL2	0.180	(0.40)
			M12 connector	1	XS130B3NBM12	0.130	(0.29)
Accesso	ries						
Descript	ion		For use with sensors		Catalog Number	Weigh kg	nt (Ib)
Mounting	clamps		Ø 6.5 (plain)		XSZB165	0.005	(0.01)
0			Ø 8 (M8 x 1)		XSZB108	0.006	(0.01)
			Ø 12 (M12 x 1)		XSZB112	0.006	(0.01)
			Ø 18 (M18 x 1)		XSZB118	0.010	(0.02)

XSZB130

(1) For a 5 m long cable replace L2 with L5. Example: XS118B3PAL2 becomes XS118B3PAL5 with a 5 m long cable.

Ø 30 (M30 x 1.5)

0.020 (0.04)

### **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, increased range, flush mountable Three-wire DC, solid-state output

	Senso	rs, 3-w	ire 12-	48 V <del></del> , long case mo	del		
	Sensing dia Sn, mm (in.)	st. Functi	on Outpu	t Connection	Catalog Number	Weig kg	ht (
	Ø 8, threa	ded M8 x	1				
	2.5 (0.10)	NO	PNP	Pre-cabled (L = 2 m) (1)	XS608B1PAL2	0.035	(0.
	2.0 (0.10)	110		M12 connector	XS608B1PAM12	0.015	(0.
			NPN	Pre-cabled (L = 2 m) $(1)$	XS608B1NAL2	0.035	(0.
				M12 connector	XS608B1NAM12	0.015	(0.
		NC	PNP	Pre-cabled (L = 2 m) $(1)$	XS608B1PBL2	0.035	(0
		110		M12 connector	XS608B1PBM12	0.015	(0
			NPN	Pre-cabled (L = 2 m) $(1)$	XS608B1NBL2	0.035	(0
(S600B100L2				M12 connector	XS608B1NBM12	0.035	(0
	Ø12, thre	aded M11	) v 1		X3000B114B1412	0.015	(0
~				Dre cobled $(1 - 2m)(4)$	VCC40D4D4L0	0.075	(0
	4 (0.16)	NO	PNP	$\frac{\text{Pre-cabled (L = 2 m) (1)}}{\text{M42 compositor}}$	XS612B1PAL2	0.075	(0
				M12 connector	XS612B1PAM12	0.020	(0
			NPN	Pre-cabled (L = 2 m) $(1)$	XS612B1NAL2	0.075	(0
				M12 connector	XS612B1NAM12	0.020	(0
		NC	PNP	Pre-cabled (L = 2 m) $(1)$	XS612B1PBL2	0.075	(0
S6••B1••M12				M12 connector	XS612B1PBM12	0.020	(0
3000B100M12			NPN	Pre-cabled (L = 2 m) (1)	XS612B1NBL2	0.075	(0
				M12 connector	XS612B1NBM12	0.020	(0
	Ø 18, thre	aded M18	3 x 1				
	8 (0.31)	NO	PNP	Pre-cabled (L = 2 m) (1)	XS618B1PAL2	0.100	((
				M12 connector	XS618B1PAM12	0.040	(0
				Remote screw term. connector	( )	0.100	((
				Remote DIN 43650 connector	XS618B1PAL01C	0.100	(0
				Remote M18 connector	XS618B1PAL01G	0.100	(0
			NPN	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS618B1NAL2	0.100	(0
				M12 connector	XS618B1NAM12	0.040	(0
S6 ●●B1●●L01B (2)				Remote screw term. connector	XS618B1NAL01B (2)	0.100	(0
				Remote DIN 43650 connector	XS618B1NAL01C	0.100	(0
		NC	PNP	Pre-cabled (L = $2 \text{ m}$ ) (1)	XS618B1PBL2	0.100	(0
				M12 connector	XS618B1PBM12	0.040	(0
				Remote screw term. connector	XS618B1PBL01B (2)	0.100	(0
				Remote DIN 43650 connector		0.100	(0
			NPN	Pre-cabled (L = 2 m) $(1)$	XS618B1NBL2	0.100	(0
				M12 connector	XS618B1NBM12	0.040	(0
				Remote screw term. connector			((
				Remote DIN 43650 connector	()	0.100	((
	Ø 30, thre	aded M30	) x 1.5		XOUIDEINEEUIO	0.100	(
	15 (0.59)	NO	PNP	Pre-cabled (L = 2 m) (1)	XS630B1PAL2	0.205	((
	15 (0.59)	NO	FINE				
S6 •• B1 •• L01C				M12 connector	XS630B1PAM12	0.145	(0
				Remote screw term. connector	XS630B1PAL01B (2)	0.205	(0
				Remote DIN 43650 connector		0.205	(0
			NIDA I	Remote M18 connector	XS630B1PAL01G	0.205	((
			NPN	$\frac{\text{Pre-cabled (L = 2 m) (1)}}{100}$	XS630B1NAL2	0.205	((
	$ \geq $			M12 connector	XS630B1NAM12	0.145	((
	$\geq$			Remote screw term. connector	( )		((
				Remote DIN 43650 connector		0.205	((
				Pre-cabled (L = 2 m) $(1)$		0.205	((
		NC	PNP		XS630B1PBL2		
		NC	PNP	M12 connector	XS630B1PBM12	0.145	((
		NC	PNP	M12 connector Remote screw term. connector	XS630B1PBM12 XS630B1PBL01B (2)	0.145 0.205	((
56 •• B1••L01G		NC	PNP	M12 connector	XS630B1PBM12 XS630B1PBL01B (2)	0.145	(0
56 •• B1••L01G		NC	PNP	M12 connector Remote screw term. connector	XS630B1PBM12 XS630B1PBL01B (2)	0.145 0.205	() () ()
S6 •• B1••L01G		NC	PNP	M12 connector Remote screw term. connector Remote DIN 43650 connector	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C	0.145 0.205 0.205	(0 (0) (0)
S6 •• B1•• L01G		NC		M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G	0.145 0.205 0.205 0.205	(0 (0) (0) (0)
S6 •• B1•• L01G		NC		M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector Pre-cabled (L = 2 m) (1)	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G XS630B1NBL2	0.145 0.205 0.205 0.205 0.205	(0) (0) (0) (0) (0)
		NC		M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector Pre-cabled (L = 2 m) (1) M12 connector	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G XS630B1NBL2 XS630B1NBM12 XS630B1NBL01B (2)	0.145 0.205 0.205 0.205 0.205 0.205 0.145	
	Accessor			M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector Pre-cabled (L = 2 m) (1) M12 connector Remote screw term.connector	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G XS630B1NBL2 XS630B1NBM12 XS630B1NBL01B (2)	0.145 0.205 0.205 0.205 0.205 0.145 0.205	0) (0) (0) (0) (0) (0) (0)
		ies		M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector Pre-cabled (L = 2 m) (1) M12 connector Remote screw term.connector Remote DIN 43650 connector	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G XS630B1NBL2 XS630B1NBM12 XS630B1NBL01B (2) XS630B1NBL01C	0.145 0.205 0.205 0.205 0.205 0.205 0.145 0.205 0.205	(0) (0) (0) (0) (0) (0) (0)
	Accessor Description	ies	NPN	M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector Pre-cabled (L = 2 m) (1) M12 connector Remote screw term.connector Remote DIN 43650 connector e with	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G XS630B1NBL2 XS630B1NBM12 XS630B1NBL01B (2)	0.145 0.205 0.205 0.205 0.205 0.145 0.205	(0 (0 (0 (0 (0 (0 (0 (0 (0 (0)
		ies	NPN For us	M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector Pre-cabled (L = 2 m) (1) M12 connector Remote screw term.connector Remote DIN 43650 connector e with	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G XS630B1NBL2 XS630B1NBM12 XS630B1NBL01B (2) XS630B1NBL01C Catalog	0.145 0.205 0.205 0.205 0.205 0.145 0.205 0.205 0.205	(0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0))))))))
	Descriptio	ies	NPN For us senso	M12 connector Remote screw term. connector Remote DIN 43650 connector Remote M18 connector Pre-cabled (L = 2 m) (1) M12 connector Remote screw term.connector Remote DIN 43650 connector e with	XS630B1PBM12 XS630B1PBL01B (2) XS630B1PBL01C XS630B1PBL01G XS630B1NBL2 XS630B1NBM12 XS630B1NBL01B (2) XS630B1NBL01C Catalog Number	0.145 0.205 0.205 0.205 0.205 0.145 0.205 0.205 0.205 <b>Weig</b>	(0 (0 (0 (0 (0 (0 (0) (0)

(1) For a 5 m cable replace L2 with L5; for a 10 m long cable replace L2 with L10. Example: XS608B1PAL2 becomes **XS608B1PAL5** with a 5 m cable.

XSZB130

0.020 (0.02)

Ø 30

(2) Protective cable gland included with remote screw terminal connector.

### Specifications, wiring diagrams, setup, dimensions

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, increased range, flush mountable Three-wire DC, solid-state output

Specifications								
Sensor type			XS1/XS6eeBeeeM8	XS1/XS6eeBeeeM12	XS1/XS6eeBeeeL2			
Product certifications			UL, CSA, CE					
Connection	Connector		M8	M12	-			
	Pre-cabled		-	-	Length 2 m			
	Remote connector		Remote screw terminal (L01I flying lead	B), DIN 43650 (L01C) or M18	connector (L01G) on 0.15 m			
Operating zone	Ø 6.5 and Ø 8	mm	0–2 (0–0.08 in.)					
	Ø 12	mm	0–3.2 (0–0.13 in.)					
	Ø 18	mm	0–6.4 (0–0.25 in.)					
	Ø 30	mm	0–12 (0–0.47 in.)					
Differential travel		%	1–15 of effective sensing dist	tance (Sr)				
Degree of protection	Conforming to IEC 60529		IP 65 and IP 67		IP 65 and IP 68, double insulation 回 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 to + 85 (-40 to +185 °F)					
Operating temperature			- 25 to + 70 (-13 to +158 °F)					
Materials	Case		Nickel plated brass (except XS608: stainless steel, grade 303)					
	Sensing face		PPS					
	Cable		-		PvR 3 x 0.34 mm <sup>2</sup> (22 AWG except Ø 6.5 and 8: 3 x 0.11 mm (27 AWG) <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, 4 viewing ports a	at 90°	Yellow LED, annular			
Rated supply voltage		۷	<b>XS1</b> : 12–24 with protection <b>XS6</b> : 12–48 with protection					
Voltage limits (including ripple)		v	XS1: == 10-36; XS6: == 10-5	58				
Switching capacity		mA	≤ 200 with overload and shor	t-circuit protection				
Voltage drop, closed state		۷	≤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	$\leq 0.2$ for Ø 6.5, Ø 8 and Ø 12, $\leq 0.7$ for Ø 18, $\leq 1.4$ for Ø 30					

Wiring diagr	ams		Setup			
Connector		Pre-cabled	Minimum m	ounting distances (mm	ı)	
M8 1 (•••) 3		BU: Blue BN: Brown BK: Black			₽ <mark>₩₩₩</mark> ₽₽₽₩₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	d ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
PNP		NPN	Sensors	Side by side	Face to face	Facing a metal object
BN/1		NPN BN/1 +	Sensors Ø 6.5	Side by side e≥5	<b>Face to face</b> e ≥ 30	<b>Facing a metal object</b> e ≥ 8
BN/1 PNP	+ BK/4 (NO)	BN/1 +		,		• •
BN/1	+ BK/4 (NO) ]BK/2 (NC)	BN/1 +	Ø 6.5	e≥5	e≥30	e≥8

e≥30

e≥180

e≥45

For M8 connector, NO and NC outputs on terminal 4

Dimensions (mm)									
<u>(1)</u>	Sensors			Pre-cab	Pre-cabled (mm)		M8 connector (mm)		nector (mm)
	Short case model			а	b	а	b	а	b
		Ø 6.5	XS106B3	33	_	42	_	45	-
		Ø 8	XS108B3	33	25	42	26	45	24
		Ø 12	XS112B3	35	25		_	50	30
a		Ø 18	XS118B3	39	28	_	-	50	28
(1) LED		Ø 30	XS130B3	43	32	-	_	55	32
	Sensors			Pre-cabled (mm)		M12 connector (mm)			
	Long case	model		а	b	а	b		
		Ø 8	XS6 08B1	51	42	62	40		
		Ø 12	XS612B1	53	42	62	42		
		Ø 18	XS618B1	62	52	74	52		
		Ø 30	XS630B1	62	52	74	52		

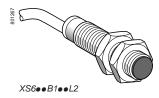
Ø 30

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, increased range, flush mountable Two-wire DC, solid-state output

XS606B3••L2









Sensing dist.	Function	Connection	Catalog	Weig	ht
Sn, mm (in.)			Number	kg	(lb)
Ø 6.5, plain					
2.5 (0.10)	NO	Pre-cabled (L = 2 m) (1)	XS606B3CAL2	0.060	(0.13
		Remote M12 connector	XS606B3CAL01M12	0.070	(0.15
	NC	Pre-cabled (L = 2 m) (1)	XS606B3CBL2	0.060	(0.13
Ø 8, threaded	d M8 x 1				
2.5 (0.10)	NO	Pre-cabled (L = 2 m) (1)	XS608B3CAL2	0.070	(0.15
		Remote M12 connector	XS608B3CAL01M12	0.070	(0.15
	NC	Pre-cabled (L = 2 m) (1)	XS608B3CBL2	0.070	(0.15
		Remote M12 connector	XS608B3CBL01M12	0.070	(0.15
Ø 12, threade	ed M12 x 1				
4 (0.16)	NO	Pre-cabled (L = 2 m) (1)	XS612B3DAL2	0.090	(0.20
		M12 connector	XS612B3DAM12	0.030	(0.07
	NC	Pre-cabled (L = 2 m) (1)	XS612B3DBL2	0.090	(0.20
		M12 connector	XS612B3DBM12	0.030	(0.07
Ø 18, threade	ed M18 x 1				
8 (0.31)	NO	Pre-cabled (L = 2 m) (1)	XS618B3DAL2	0.110	(0.24
		M12 connector	XS618B3DAM12	0.060	(0.13
	NC	Pre-cabled (L = 2 m) (1)	XS618B3DBL2	0.110	(0.24
		M12 connector	XS618B3DBM12	0.060	(0.13
Ø 30, threade	ed M30 x 1.5				
15 (0.59)	NO	Pre-cabled (L = 2 m) (1)	XS630B3DAL2	0.180	(0.40
		M12 connector	XS630B3DAM12	0.130	(0.29
	NC	Pre-cabled (L = 2 m) (1)	XS630B3DBL2	0.180	(0.40
		M12 connector	XS630B3DBM12	0.180	(0.40

Sensors, 2	2-wire 12-4	18 V <del></del> , long case m	odel		
Sensing dist.	Function	Connection	Catalog	Weig	
Sn, mm (in.)			Number	kg	(lb)
Ø 6.5, plain					
2.5 (0.10)	NO	Pre-cabled (L = 2 m) (1)	XS606B1DAL2	0.060	(0.13)
	NC	Pre-cabled (L = 2 m) (1)	XS606B1DBL2	0.060	(0.13)
Ø 8, threaded	d M8 x 1				
2.5 (0.10)	NO	Pre-cabled (L = 2 m) $(1)$	XS608B1DAL2	0.035	(0.08)
		M12 connector	XS608B1DAM12	0.015	(0.03)
	NC	Pre-cabled (L = 2 m) (1)	XS608B1DBL2	0.035	(0.08)
		M12 connector	XS608B1DBM12	0.015	(0.03)
Ø 12, threade	ed M12 x 1				
4 (0.16)	NO	Pre-cabled (L = 2 m) (1)	XS612B1DAL2	0.180	(0.40)
		M12 connector	XS612B1DAM12	0.020	(0.44)
	NC	Pre-cabled (L = 2 m) (1)	XS612B1DBL2	0.075	(0.17)
		M12 connector	XS612B1DBM12	0.020	(0.44)
Ø 18, threade	ed M18 x 1				
8 (0.31)	NO	Pre-cabled (L = 2 m) (1)	XS618B1DAL2	0.100	(0.22)
		M12 connector	XS618B1DAM12	0.040	(0.09)
	NC	Pre-cabled (L = 2 m) (1)	XS618B1DBL2	0.100	(0.22)
		M12 connector	XS618B1DBM12	0.040	(0.09)
Ø 30, threade	ed M30 x 1.5				
15 (0.59)	NO	Pre-cabled (L = 2 m) (1)	XS630B1DAL2	0.205	(0.45)
		M12 connector	XS630B1DAM12	0.145	(0.32)
	NC	Pre-cabled (L = 2 m) (1)	XS630B1DBL2	0.205	(0.45)
		M12 connector	XS630B1DBM12	0.145	(0.32)
Accessories					
Description		For use with	Catalog	Weigl	
		sensors	Number	kg	(lb)
Mounting clamp	os	Ø 6.5 (plain)	XSZB165	0.005	(0.01)
		Ø 8 (M8 x 1)	XSZB108	0.006	(0.01)
		Ø 12 (M12 x 1)	XSZB112	0.006	(0.01)
		Ø 18 (M18 x 1)	XSZB118	0.010	(0.02)
		Ø 30 (M30 x 1.5)	XSZB130	0.020	(0.04)

(1) For a 5 m cable replace L2 with L5. Example: XS606B3CAL2 becomes XS606B3CAL5 with a 5 m cable.

#### Schneider Gelectric

#### Specifications, wiring diagrams, setup, dimensions

### **OsiSense® Inductive** proximity sensors General purpose

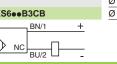
Cylindrical, increased range, flush mountable Two-wire DC, solid-state output

Sensor type			XS6eeB3DeM12, XS6eeB1DeM12	XS6eeB3DeL2, XS6eeB1DeL2				
Product certifications			UL, CSA, CE	A3000B3D0L2, A3000B1D0L2				
Connection	Connector		M12 or remote M12 connector (L01M12) on 0.15 m flying lead					
connection	Pre-cabled		Length 2 m	on o. 13 http://gileau				
Operating zone	Ø 6.5 and Ø 8							
Operating zone	Ø 12		0–2 (0–0.08 in.) 0–3.2 (0–0.13 in.)					
	Ø 12 Ø 18	mm						
		mm						
Differential travel	Ø 30	mm	- ( /					
		%	115 of effective sensing distance (Sr)					
Degree of protection	Conforming to IEC 60529		IP 65 and IP 67	IP 65 and IP 68 double isolation (except Ø 6.5 and Ø 8: IP 67)				
	Conforming to DIN 40050		IP 69K					
Storage temperature			- 40 to + 85 (-40 to +185 °F)					
Operating temperature		°C	- 25 to + 70 (-13 to +158 °F)					
Materials	Case		Nickel plated brass (except XS606B1D c	r XS608B1D: stainless steel, grade 303				
	Sensing face		PPS					
	Cable		PvR 2 x 0.34 mm <sup>2</sup> (22 AWG) except Ø 6.5	5 and Ø 8: 2 x 0,11 mm <sup>2</sup> (27 AWG)				
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°					
Rated supply voltage		v	12–48 non-polarized for XS6••B1D, 12–24 non-polarized for XS6••B3D (¢ polarized), with protection against revers					
Voltage limits (including ripple)		۷	10–58 for XS6••B1D 10–36 for XS6••B3D					
Switching capacity		mA	≤ 100 with overload and short-circuit prot	ection				
Voltage drop, closed state		v	4					
Current consumption, no-load		mA	≤0.5 mA					
Maximum switching frequency	Ø 6.5, Ø 8	Hz	3000					
	Ø 12	Hz	2000					
	Ø 18	Hz	1000					
	Ø 30	Hz	500					
Delays	First-up	ms	≤10					
-	Response	ms	≤0.3					
	Recovery	ms						

Wiring diagrams		Setting-up	i				
M12 connector	Pre-cabled	Minimum m	Minimum mounting distances (mm)				
	BU: Blue BN: Brown				∎ T		
2-wire non-polarized							
NO output	NC output	Sensors	Side by side	Face to face	Facing a metal object		
BN/3 +/-	BN/1 +/-	Ø 6.5	e≥5	e≥30	e≥8		
		Ø8	e≥5	e≥30	e≥8		
BU/4 -/+	BU/2 -/+	Ø 12	e≥8	e≥50	e≥12		
2-wire polarized		Ø 18	e≥16	e≥100	e≥25		

2-wire	e 🞞 polarize	d	
XS6ee	B3CA		Х
	BN/1	+	

(S6eeB3CB BN/1 + ♦ NC



Ø 18 e≥16 e≥100 Ø 30 e≥30 e≥180

\_

Dimensions (mm)						
(1)	Sensors		Pre-ca	abled (mm)	M12 c	onnector (mm)
	Short case model		а	b	а	b
	Ø 6.5	XS606B3D	33	-	_	_
	Ø 8	XS608B3D	33	25	_	24
b	Ø 12	XS612B3D	35	25	50	30
а	Ø 18	XS618B3D	39	28	50	28
-	Ø 30	XS630B3D	43	32	55	32
LED	Long case model		а	b	а	b
	Ø 6.5	XS606B1D	51	-	-	_
	Ø 8	XS608B1D	51	42	62	40
	Ø 12	XS612B1D	53	42	62	42
	Ø 18	XS618B1D	62	52	74	52
	Ø 30	XS630B1D	62	52	74	52

e≥45

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, increased range, flush mountable Two-wire AC or DC (1)

	Number		
	Number	kg	(lb)
1			
Pre-cabled (L = 2 m) $(1)$	XS612B1MAL2	0.075	(0.17)
	XS612B1MAU20		(0.06)
	XS612B1MBL2	0.075	(0.17
1/2"-20UNF connector	XS612B1MBU20	0.025	(0.06)
1			
Pre-cabled (L = 2 m) $(1)$	XS618B1MAL2	0.100	(0.22)
1/2"-20UNF connector	XS618B1MAU20	0.060	(0.13)
Remote screw terminal connector	XS618B1MAL01B (2)	0.100	(0.22)
Remote DIN 43650A connector	XS618B1MAL01C	0.100	(0.22)
Remote M18 connector	XS618B1MAL01G	0.100	(0.22)
Pre-cabled (L = 2 m) $(1)$	XS618B1MBL2	0.100	(0.22)
1/2"-20UNF connector	XS618B1MBU20	0.060	(0.13)
Remote screw terminal connector			(0.22)
Remote DIN 43650A connector	( )		(0.22)
Remote M18 connector	XS618B1MBL01G	0.100	(0.22)
1.5			
Pre-cabled (L = 2 m) $(2)$	XS630B1MAL2	0.205	(0.45)
1/2"-20UNF connector	XS630B1MAU20	0.145	(0.32)
Remote screw terminal connector	XS630B1MAL01B (2)	0.205	(0.45)
Remote DIN 43650A connector	XS630B1MAL01C	0.205	(0.45)
Remote M18 connector	XS630B1MAL01G	0.205	(0.45)
			(0.45)
			(0.32)
			(0.45)
			(0.45)
Remote M18 connector	XS6 30B1MBL01G	0.205	(0.45)
For use with	Catalog	Weia	ht
sensors	Number	kg	(lb)
Ø 12	XSZB112	0.006	(0.01)
Ø 18	XSZB118	0.010	(0.02)
Ø 30	XSZB130	0.020	(0.04)
1AL2 becomes XS612B1MAL5 with a	5 m cable.		
	1/2"-20UNF connector         Pre-cabled (L = 2 m) (1)         1/2"-20UNF connector         1         Pre-cabled (L = 2 m) (1)         1/2"-20UNF connector         Remote screw terminal connector         Remote M18 connector         Pre-cabled (L = 2 m) (1)         1/2"-20UNF connector         Remote M18 connector         Pre-cabled (L = 2 m) (1)         1/2"-20UNF connector         Remote Screw terminal connector         Remote DIN 43650A connector         Remote Screw terminal connector         Remote DIN 43650A connector         Remote M18 connector         Remote DIN 43650A connector         Remote DIN 43650A connector         Remote M18 connector         Remote M18 connector         Remote M18 connector	1/2"-20UNF connectorXS612B1MAU20Pre-cabled (L = 2 m) (1)XS612B1MBL21/2"-20UNF connectorXS612B1MBU201Pre-cabled (L = 2 m) (1)Y=20UNF connectorXS618B1MAL21/2"-20UNF connectorXS618B1MAL01B (2)Remote screw terminal connectorXS618B1MAL01B (2)Remote DIN 43650A connectorXS618B1MAL01GPre-cabled (L = 2 m) (1)XS618B1MBL21/2"-20UNF connectorXS618B1MBL21/2"-20UNF connectorXS618B1MBL21/2"-20UNF connectorXS618B1MBL01B (2)Remote DIN 43650A connectorXS618B1MBL01B (2)Remote DIN 43650A connectorXS618B1MBL01B (2)Remote M18 connectorXS630B1MAL01CRemote M18 connectorXS630B1MAL01G1.5Pre-cabled (L = 2 m) (2)XS630B1MAL01B (2)Remote M18 connectorXS630B1MAL01B (2)Remote M18 connectorXS630B1MAL01B (2)Remote M18 connectorXS630B1MAL01B (2)Remote M18 connectorXS630B1MAL01CRemote M18 connectorXS630B1MAL01CRemote M18 connectorXS630B1MAL01GPre-cabled (L = 2 m) (2)XS630B1MAL01GPre-cabled (L = 2 m) (2)XS630B1MBL21/2"-20UNF connectorXS630B1MAL01GPre-cabled (L = 2 m) (2)XS630B1MBL01GRemote M18 connectorXS630B1MBL01GRemote M18 connectorXS630B1MBL01B (2)Remote DIN 43650A connectorXS630B1MBL01B (2)Remote M18 connectorXS630B1MBL01GRemote M18 connectorXS630B1MBL01GRemote M18 conn	1/2"-20UNF connectorXS612B1MAU200.025Pre-cabled (L = 2 m) (1)XS612B1MBL20.0751/2"-20UNF connectorXS612B1MBU200.0251Pre-cabled (L = 2 m) (1)XS618B1MAL20.1001/2"-20UNF connectorXS618B1MAL01B (2)0.100Remote screw terminal connectorXS618B1MAL01C0.100Remote DIN 43650A connectorXS618B1MAL01G0.100Pre-cabled (L = 2 m) (1)XS618B1MAL01G0.100Remote M18 connectorXS618B1MBL20.1001/2"-20UNF connectorXS618B1MBL20.1001/2"-20UNF connectorXS618B1MBL01B (2)0.100Remote DIN 43650A connectorXS618B1MBL01B (2)0.100Remote Screw terminal connectorXS618B1MBL01G0.100Remote DIN 43650A connectorXS618B1MBL01G0.100Remote M18 connectorXS630B1MAL20.205I/2"-20UNF connectorXS630B1MAL20.205Remote Screw terminal connectorXS630B1MAL01B (2)0.205Remote M18 connectorXS630B1MAL01B (2)0.205Remote M18 connectorXS630B1MAL01G0.205Pre-cabled (L = 2 m) (2)XS630B1MAL01G0.205Remote M18 connectorXS630B1MBL20.205Remote Screw terminal connectorXS630B1MBL01B (2)0.205Remote M18 connectorXS630B1MBL01G0.205Remote DIN 43650A connectorXS630B1MBL01B (2)0.205Remote DIN 43650A connectorXS630B1MBL01G0.205Remote M18 connectorXS630B1MBL01G0.205<

XS6●●B1●●L01G



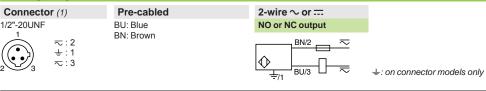
#### Specifications, wiring diagrams, setup, dimensions

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, increased range, flush mountable Two-wire AC or DC

Sensor type			XS6eeB1MeU20	XS6••B1M•L•	
Product certifications		1	UL, CSA, CE		
Connection	Connector		1/2" - 20 UNF	_	
Connection	Pre-cabled			Length 2 m	
	Remote connector		Remote screw terminal (L01B), DIN 43650 flying lead	A (L01C) or M18 connector (L01G) on 0.15 n	
Operating zone	Ø 12	mm	0–3.2 (0–0.13 in.)		
	Ø 18	mm	0–6.4 (0–0.25 in.)		
	Ø 30	mm	0–12 (0–0.47 in.)		
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 isolation	
	Conforming to DIN 40050		IP 69K		
Storage temperature		°C	- 40 to + 85 (-40 to +185 °F)		
Operating temperature		°C	- 25 to + 70 (-13 to +158 °F)		
Materials	Case		Nickel plated brass		
	Sensing face		PPS		
	Cable		PvR 2 x 0.34 mm <sup>2</sup> (22 AWG)		
Vibration resistance	To IEC 60068-2-6		25 gn, amplitude $\pm 2$ mm (f = 10 to 55 Hz)		
Shock resistance	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 c		
Rated supply voltage		۷	≂24240 (~ 50/60 hZ)		
Voltage limits (including ripple)		۷	≂20–264		
Switching capacity	XS612B1Meee	mA	5200 (2)		
	XS618B1M●●●, XS630B1M●●●	mA	$\sim$ 5–300 or == 5–200 (1)		
Voltage drop, closed state		۷	≤ 5.5		
Current consumption, no-load		mA	≤0.8		
Maximum switching frequency	Ø 12	Hz	1000 / ~ 25		
(a.c./d.c. supply)	Ø 18	Hz	1000 / ~ 25		
	Ø 30	Hz	500 / ~ 25		
Delays	First-up	ms	$\leq$ 25 for Ø 18 and Ø 30 sensors; $\leq$ 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		

#### Wiring diagrams



Setup

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 (mm)				
(1)	Sensors	Pre-cabled (mm)	Connector (mm)	
1.7				

(1)	Sense	Sensors		oled (mm)	Connec	t <b>or</b> (mm)	
			а	b	а	b	
	Ø 12	XS612B1Me	53	42	62	42	
	Ø 18	XS618B1Me	62	52	73	52	
b b	Ø 30	XS630B1Me	62	52	73	52	
a 🔒							

-(1) LED

## **OsiSense® Inductive**

**proximity sensors** General purpose Cylindrical, increased range, non-flush mountable Three-wire DC, solid-state output

	Sensors	s, 3-wire	12	48 V, long case me	odel		
		aded M12					
	Sensing distance Sn, mm (in.	Function	Output	Connection	Catalog Number	Weig kg	ht (Ib)
	7 (0.28)	NO	PNP	Pre-cabled (L = 2 m) (1) M12 connector	XS612B4PAL2 XS612B4PAM12	0.075 0.020	(0.17 (0.04
61284••L2			NPN	Pre-cabled (L = 2 m) (1) M12 connector	XS612B4NAL2 XS612B4NAM12	0.075 0.020	(0.17 (0.04
012D4 <b>00</b> L2		NC	PNP	Pre-cabled (L = 2 m) (1) M12 connector	XS612B4PBL2 XS612B4PBM12	0.075	(0.1 (0.04
			NPN	Pre-cabled (L = 2 m) (1) M12 connector	XS612B4NBL2 XS612B4NBM12	0.075	(0.1 (0.04
	Ø 18 thre	aded M18	v 1				
	Sensing distance (Sn) mm	Function		Connection	Catalog Number	Weig kg	ht (lb)
	12 (0.47)	NO	PNP	Pre-cabled (L = 2 m) (1) M12 connector	XS618B4PAL2 XS618B4PAM12	0.100 0.040	(0.22
418B4●●M12			NPN	Pre-cabled (L = 2 m) (1) M12 connector	XS618B4NAL2 XS618B4NAM12	0.100	(0.2
		NC	PNP	Pre-cabled (L = 2 m) (1) M12 connector	XS618B4PBL2 XS618B4PBM12	0.100	(0.2
			NPN	Pre-cabled (L = 2 m) (1) M12 connector	XS618B4NBL2 XS618B4NBM12	0.100	(0.22
	Q 20 thus	eded MOO					
	Sensing distance (Sn) mm	aded M30 Function		Connection	Catalog Number	Weig kg	ht (Ib)
	22 (0.87)	NO	PNP	Pre-cabled (L = 2 m) (1) M12 connector	XS630B4PAL2 XS630B4PAM12	0.205 0.145	(0.45 (0.32
			NPN	Pre-cabled (L = 2 m) (1) M12 connector	XS630B4NAL2 XS630B4NAM12	0.205 0.145	(0.45
		NC	PNP	Pre-cabled (L = 2 m) (1) M12 connector	XS630B4PBL2 XS630B4PBM12	0.205 0.145	(0.45
			NPN	Pre-cabled (L = 2 m) (1) M12 connector	XS630B4NBL2 XS630B4NBM12	0.205 0.145	(0.45
	Accessor						
	Description		For use v	with	Catalog Number	Weig kg	(lb)
	Mounting cl	amps	Ø 12 Ø 18 Ø 30		XSZB112 XSZB118 XSZB130	0.006 0.010 0.020	(0.01 (0.02 (0.04
	(4) Ear a E m				A320130	0.020	(0.04

(1) For a 5 m cable replace L2 with L5; for a 10 m cable replace L2 with L10. Example: XS612B4PAL2 becomes XS612B4PAL5 with a 5 m cable.

Schneider Gelectric

### Specifications, wiring diagrams, setup, dimensions

## **OsiSense® Inductive**

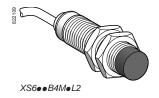
**proximity sensors** General purpose Cylindrical, increased range, non-flush mountable Three-wire DC, solid-state output

Specifications							
Sensor type				XS6eeB4eeM12		XS6eeB4ee	L2
Product certifications				UL, CSA, C€			
Connection	Connector			M12		-	
	Pre-cabled			_		Length 2 m	
Operating zone	Ø 12		mm	0–5.6 (0–0.22 in.)		- 5	
	Ø 18		mm	0–9.6 (0–0.38 in.)			
	Ø 30		mm	0–17.6 (0–0.69 in.)			
Differential travel	0.00		%	1–15 of effective sensir	na distance (Sr)		
Degree of protection	Conforming to IEC 6052	٥	70	IP 65 and IP 67		IP 65 and IP	68, double insulation 🗉
Storage temperature		3	°C	- 40 to + 85 (-40 to +18	5 °E)		
			°C	- 40 t0 + 83 (-40 t0 + 18)	,		
Operating temperature	0		C	· · · · · · · · · · · · · · · · · · ·	ог)		
Materials	Case		<u> </u>	Nickel plated brass			
	Sensing face			PPS			2 (00 414(0)
	Cable			-		PvR 3 x 0.34	mm <sup>2</sup> (22 AWG)
Vibration resistance	Conforming to IEC 6006			25 gn, amplitude ± 2 m	m (f = 10 to 55 Hz)		
Shock resistance	Conforming to IEC 6006	8-2-27		50 gn, duration 11 ms			
Output state indication				Yellow LED: 4 viewing	·	Yellow LED:	annular
Rated supply voltage			۷	12–48 with protectio	n against reverse po	larity	
Voltage limits (including rippl	e)		۷	10–58			
Switching capacity			mA	≤ 200 with overload and	d short-circuit protec	tion	
Voltage drop, closed state			v	≤2			
Current consumption, no-loa	d		mA	≤ 10			
Maximum switching frequence	W XS612B4		Hz	2500			
Maximum switching inequence	XS618B4eee		Hz	1000			
	XS630B4000		Hz	500			
Deleve							
Delays	First-up		ms	≤ 10	Q 40 < 0 0 5 Q 00		
	Response		ms	$\leq 0.2$ for Ø 12, $\leq 0.3$ for			
Wiring diagrams	Recovery		ms	≤ 0.2 for Ø 12, ≤ 0.7 for	18, ≤ 1.4 for Ø 30		
Connector	Pre-cabled		PNP		NPN		
M12			BN/1	<u> </u>	BN/1		
4 3	BU: Blue		PNP	+ BK/4 (NO)		+	
	BN: Brown		$\Diamond$	BK/2 (NC)		K/4 (NO)	
	BK: Black		BU/3		BU/3	K/2 (NC)	
			BU/3	I	B0/3		
Setup							
_ 3 S			Minir	mum mounting dista	inces (mm)		
					₽		z Contraction of the second
			Side b	by side	Face to face		Facing a metal object
Ot	pject to be detected	Ø 12	e≥48		e≥84		e≥21
		Ø 18	e≥72		e≥144		e≥36
		Ø 30	e≥120	)	e≥264		e≥66
Dimensions (mm)							
<u>(1)</u>			Pre-c	abled (mm)	Connector (mm)		
		XS6	а	b	a b	С	
		Ø 12	55	42	66 42	5	
		Ø 18	60	44	72 44	8	
b + - C		Ø 30	63	41	74 41	13	
a						10	

(1) LED

#### OsiSense<sup>®</sup> Inductive proximity sensors General purpose

General purpose Cylindrical, increased range, non-flush mountable Two-wire AC or DC



Sensors,	2-wire $\sim$ 2	24 240 V, long case n	nodel		
Ø 18, thread	ded M18 x 1				
Sensing distance Sn, mm (in.)	Function	Connection	Catalog Number	Weigl kg	ht (Ib)
12 (0.47)	NO	Pre-cabled (L = 2 m) $(1)$	XS618B4MAL2	0.120	(0.26)
		1/2"-20UNF connector	XS618B4MAU20	0.060	(0.13)
	NC	Pre-cabled (L = 2 m) $(1)$	XS618B4MBL2	0.120	(0.26)
		1/2"-20UNF connector	XS618B4MBU20	0.060	(0.13)

Catalog

Number

XS630B4MAL2

XS630B4MAU20

XS630B4MBL2

XS630B4MBU20

Connection

Pre-cabled (L = 2 m) (1)

1/2"-20UNF connector

Pre-cabled (L = 2 m) (1)

1/2"-20UNF connector

Weight

0.205

0.145

0.205

0.145

(lb)

(0.45)

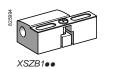
(0.32)

(0.45)

(0.32)

kg





Accessories Catalog Number For use with Weight Description (lb) sensors kg XSZB118 Mounting Ø 18 0.010 (0.02) clamps Ø 30 XSZB130 0.020 (0.04)

(1) For a 5 m cable replace L2 with L5; for a 10 m cable replace L2 with L10. Example: XS618B4MAL2 becomes XS618B4MAL5 with a 5 m cable.

Ø 30, threaded M30 x 1.5

Function

NO

NC

Sensing

distance

Sn, mm (in.) 22 (0.87)

Schneider Belectric

#### Specifications, wiring diagram, setup, dimensions

### **OsiSense® Inductive** proximity sensors General purpose

Cylindrical, increased range, non-flush mountable Two-wire AC or DC

Sensor type			XS6eeB4MeU20	XS6eeB4MeL2			
Product certifications			UL, CSA, C€				
Connection	Connector		1/2"-20UNF	-			
	Pre-cabled		-	Length 2 m			
Operating zone	Ø 18	mm	0–9.6 (0–0.38 in.)				
	Ø 30	mm	0–17.6 (0–0.69 in.)				
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 insula				
Storage temperature		°C	- 40 to + 85 (-40 to +185 °F)				
Operating temperature		°C	- 25 to + 70 (-13 to +158 °F)				
Materials	Case		Nickel plated brass				
	Sensing face		PPS				
	Cable		-	PvR 2 x 0.34 mm <sup>2</sup> (22 AWG)			
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	∼ or 24240 (∼ 50/60 Hz)				
Voltage limits (including ripple)		v	$\sim$ or $=$ 20–264				
Switching capacity		mA	~ 5300 or == 5200 (1)				
Voltage drop, closed state		V	≤5.5				
Residual current, open s	state	mA	≤0.8				
Maximum switching XS618B4Meee		Hz	$\sim$ 25 or $=$ 1000				
frequency	XS630B4Meee	Hz	$\sim$ 25 or $=$ 300				
Delays	First-up	ms	≤ 30 XS618B4Meee and XS630B4Mee	•			
-	Response	ms	≤0.5				
	Recovery	ms	≤ 0.5 XS618B4M●●●, ≤ 2 XS630B4M●	••			

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

e≥144

e≥264

#### Wiring diagrams Connector

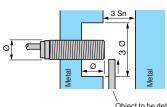




2-wire $\sim$ or $=$					
NO or NC output					
	BN/2		$\sim$		
	BU/3	-[]-	$\sim$		

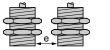
±: on connector models only

Setup



Object to be detected

Minimum mounting distances (mm)	



Side by side

e≥72

e≥120

Ø 18

Ø 30

	₽
Face to face	Facing a metal

JimAnAnn	
Facing a metal	object
e≥36	

<u>e≥36</u> e≥66

<u>pi</u> mensions (mm)							
		Pre-cabled (mm)		Connec	tor (mm)		
	XS6	а	b	а	b	с	
	Ø 18	60	44	72	44	8	
	Ø 30	63	41	74	41	13	
u u							

(1) LED

#### Schneider Electric USA, Inc.

Schneider Electric Sensor Competency Center 1875 Founders Drive Dayton OH 45420 (800) 435-2121 The information and dimensions in this catalog are provided for the convenience of our customers. While this information is believed to be accurate, Schneider Electric reserves the right to make updates and changes without prior notification and assumes no liability for any errors or omissions.

Design: Schneider Electric Photos: Schneider Electric

#### www.SeSensors.com