

# Product data sheet

Specifications



## Inductive proximity sensors XS, inductive sensor XS8 40x40x117, PBT, Sn20 mm, 12...48 VDC, terminals

XS8C4A1PCN12

### Main

Range of product	Telemecanique Inductive proximity sensors XS
Series name	General purpose
Sensor type	Inductive proximity sensor
Device application	Mobile equipment
Sensor name	XS8
Sensor design	Form 40 x 40 x 117
Size	117 mm
Body type	Fixed
Detector flush mounting acceptance	Flush mountable
Material	Plastic
Enclosure material	PBT
Type of output signal	Discrete
Wiring technique	4-wire
[Sn] nominal sensing distance	20 mm
Discrete output function	1 NO + 1 NC
Output circuit type	DC
Discrete output type	PNP
Electrical connection	Screw-clamp terminals, 4 x 1.5 mm <sup>2</sup>
[Us] rated supply voltage	12...48 V DC with reverse polarity protection
Switching capacity in mA	<= 200 mA with overload and short-circuit protection
IP degree of protection	IP67 conforming to IEC 60529 IP65 conforming to IEC 60529 IP69K conforming to DIN 40050

### Complementary

Safety level	SIL 2 conforming to EN/IEC 61508 PL = d conforming to EN/ISO 13849-1 SILCL 2 conforming to IEC 62061
Safety reliability data	MTTFd = 1546 years PFHd = 7.4E-8 1/h SFF = 92 % DC = 75 % with appropriate safety controller

Detection face	5 positions turret head
Front material	PBT
Operating zone	0...16 mm
Differential travel	3...15% of Sr
Repeat accuracy	<= 3% of Sr
Cable entry number	1 tapped entry for 1/2" NPT cable gland
Status LED	Supply on: 1 LED (green) Output state: 1 LED (yellow)
Supply voltage limits	10...58 V DC
Switching frequency	<= 300 Hz
Maximum voltage drop	<2 V (closed)
Current consumption	0...15 mA no-load
Maximum delay first up	7.5 ms
Maximum delay response	1.2 ms
Maximum delay recovery	1.8 ms
Marking	CE
Height	40 mm
Length	40 mm
Width	117 mm
Net weight	0.244 kg

## Environment

Product certifications	TÜV CSA UL E2 CCC
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C
Vibration resistance	25 gn amplitude = +/- 2 mm (f = 10...55 Hz) conforming to IEC 60068-2-6
Shock resistance	50 gn for 11 ms conforming to EN 60068-2-27

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.8 cm
Package 1 Width	5.0 cm
Package 1 Length	14.0 cm
Package 1 Weight	248.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	14
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.846 kg

## Offer Sustainability

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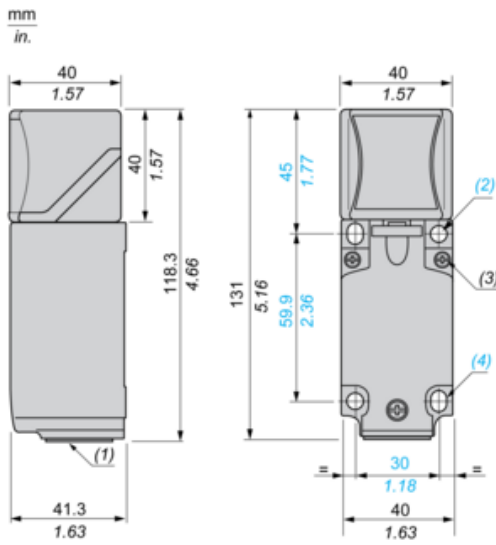
<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

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<b>Warranty</b>	18 months
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Dimensions

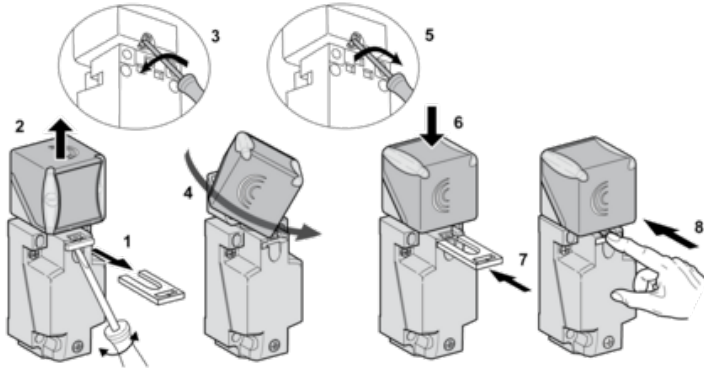


- (1) : 1/2" NPT cable gland.
- (2) : 2 holes  $\varnothing$  5,45 mm /  $\varnothing$  0.21 in. Tightening torque: < 1,5 Nm / < 13.3 lb-in.
- (3) : 3 screws M3,5. Tightening torque: < 1,2 Nm / < 10.6 lb-in.
- (4) : 2 elongated holes 5,4 x 7,4 mm / 0.21 x 0.29 in. Tightening torque: < 1,5 Nm / < 13.3 lb-in".

**Mounting**

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**Head Positions**

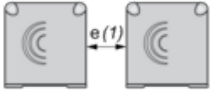


**Setting-up Precautions**

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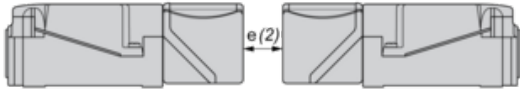
**Minimum Mounting Distances (mm)**

Side by Side



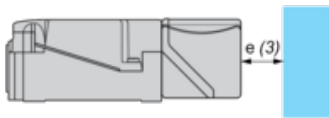
$e(1) \geq 80$

Face to Face



$e(2) \geq 160$

Facing a Metal Object

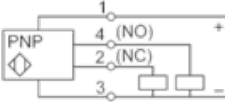


$e(3) \geq 60$

**Wiring Schemes**

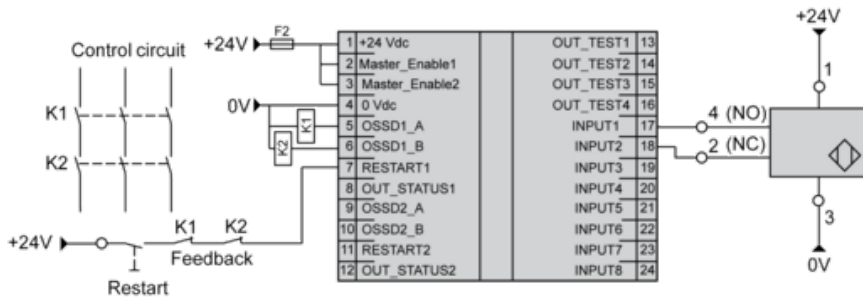
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**4-Wire DC**



**SIL 2 Wiring Scheme**

**With Preventa XPSMF40 Safety PLC**



SFF : (Safe Failure Fraction): 92,68 %

DC : (Diagnosis Coverage): 75,8 %

**Recommended replacement(s)**