

Inductive proximity sensors XS for hazardous area dust, 40x40x117, Sn20 mm, 12..48VDC, NO+NC, terminals



## Main

Range of product	Telemecanique Inductive proximity sensors XS
Series name	Application
Sensor type	Inductive proximity sensor
Device application	ATEX dust
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
[Sn] nominal sensing distance	20 mm
Type of output signal	Discrete
Wiring technique	4-wire
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

## 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
Sensing range	> 15...40 mm
Operating zone	0...16 mm
Differential travel	3...15% of Sr
Repeat accuracy	<= 3% of Sr
Cable entry number	1 tapped entry for M20 x 1.5 cable gland (included)
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	II2 D-Ex tb IIIC T85°C Db IP67
Depth	40 mm
Height	40 mm
Width	117 mm
Net weight	0.294 kg

## Environment

Environmental characteristic	Hazardous location
Standards	EN/IEC 60079-0 EN/IEC 60079-31
Directives	2014/34/EU - ATEX directive
Product certifications	INERIS 16ATEX0037X[RETURN]IEC-Ex INE 16.0047X
Ambient air temperature for operation	-20...60 °C
Ambient air temperature for storage	-25...70 °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
Dust zone	Zone 21 - 22

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.0 cm
Package 1 Width	5.0 cm
Package 1 Length	14.0 cm
Package 1 Weight	244.0 g

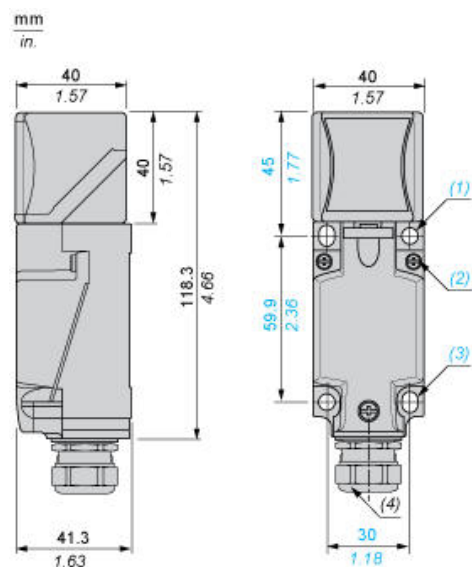
## Offer Sustainability

California proposition 65	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>
For all Reach Rohs enquiries contact us at	<a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>

## Contractual warranty

Warranty	18 months
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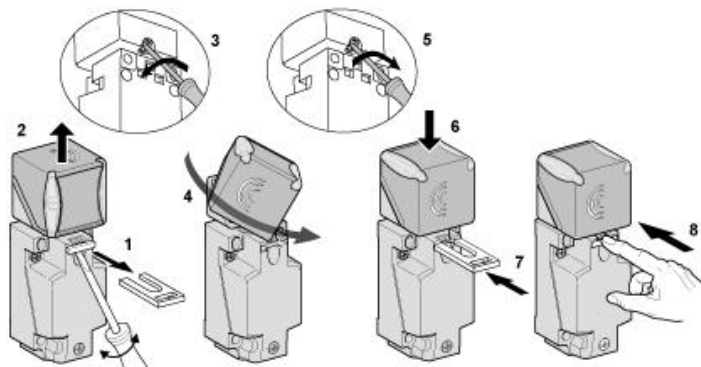
## Dimensions



- (1) 2 holes  $\varnothing$  5,45 mm /  $\varnothing$  0.21 in. (Tightening torque: < 1,5 Nm / < 13.3 lb-in.)
- (2) 3 screws M3,5. (Tightening torque: < 1,2 Nm / < 10.6 lb-in.)
- (3) 2 elongated holes 5,4 x 7,4 mm / 0.21 x 0.29 in. (Tightening torque: < 1,5 Nm / < 13.3 lb-in.)
- (4) Hazardous area certified cable gland, (Tightening torque: < 4 Nm / < 35.4 lb-in.)

## Mounting

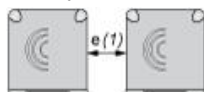
### Head Positions



### Setting-up Precautions

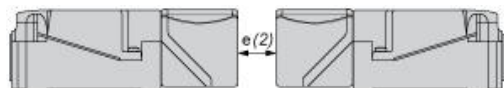
#### Minimum Mounting Distances (mm)

Side by Side



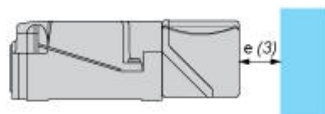
$e(1) \geq 80$

Face to Face



$e(2) \geq 160$

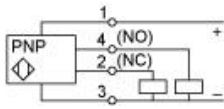
Facing a Metal Object



$e(3) \geq 60$

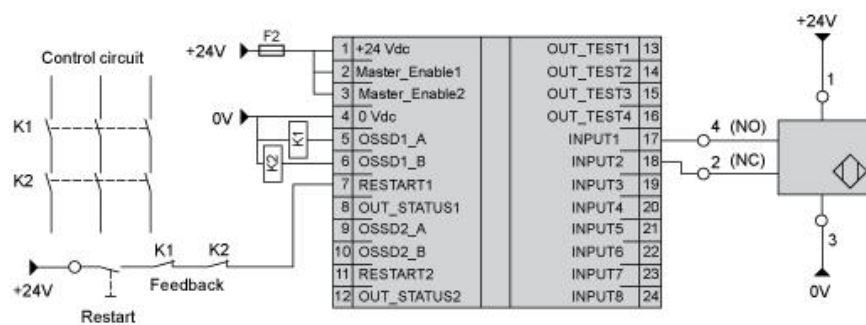
## Wiring Schemes

## 4-Wire DC



## SIL 2 Wiring Scheme

With Preventa XPSMF40 Safety PLC



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

DC : (Diagnosis Coverage): 75,8 %