Are proximity sensors causing high maintenance cost & unexpected machine down time?

Introducing XS9 one-piece all 303 stainless steel inductive proximity sensors.

New OsiSense® XS9 stainless steel Inductive proximity sensors tough enough for your harsh industrial applications and environment.

The **unique one-piece housing,** machined from 303 stainless steel solid bars, is extremely resistant to mechanical shocks and vibrations.

With **"3 times" sensing distance** XS9 Inductive Proximity Sensors provide a fast and comfortable setting.
In addition, the improved sensing distance allows greater distance from target to sensor face reducing potential for exposure to shock.

Thanks to **Factor 1** sensing feature, both ferrous and non-ferrous can be detected from the same distance.

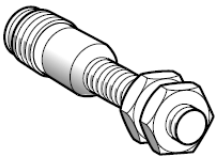
Flush and non flush versions are available to fulfill different mounting need. Up to 40 mm sensing distance, OsiSense XS9 ensures reliable detection in most critical applications.

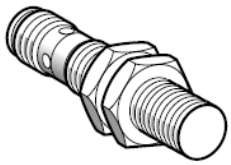
With a **high switching frequency** this sensor allows you to detect rapidly and precisely fast moving metal parts. Operating frequency is 3 to 6 times higher than standard inductive sensors to give more accuracy to small and fast moving parts detection.

Well suited for applications such as:
- Metal processing machines
- Automotive
- Machining

Telemecanique Sensors

Inductive proximity sensors
OsiSense® XS application
Cylindrical, stainless steel 303 front face
for harsh industrial environments
Three-wire DC, solid-state output


XS9 08•1PAM12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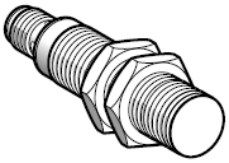
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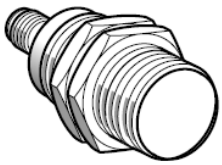
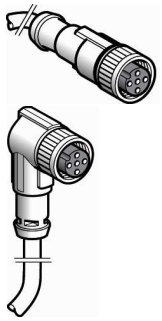

XS9 30•1PAM12

Sensing distance Sn, mm	Function	Output	Connection	Reference	Weight kg
Ø 8 mm, Threaded M8 x 1					
Three-wire 12-24V ⎓, flush mountable					
3	NO	PNP	M12	**XS908R1PAM12**	0.018
Three-wire 12-24V ⎓, non-flush mountable					
6	NO	PNP	M12	**XS908R4PAM12**	0.018
Ø 12 mm, Threaded M12 x 1					
Three-wire 12-24V ⎓, flush mountable					
6	NO	PNP	M12	**XS912R1PAM12**	0.024
Three-wire 12-24V ⎓, non-flush mountable					
10	NO	PNP	M12	**XS912R4PAM12**	0.023
Ø 18 mm, Threaded M18 x 1					
Three-wire 12-24V ⎓, flush mountable					
10	NO	PNP	M12	**XS918R1PAM12**	0.044
Three-wire 12-24V ⎓, non-flush mountable					
20	NO	PNP	M12	**XS918R4PAM12**	0.051
Ø 30 mm, Threaded M30 x 1.5					
Three-wire 12-24V ⎓, flush mountable					
20	NO	PNP	M12	**XS930R1PAM12**	0.140
Three-wire 12-24V ⎓, non-flush mountable					
40	NO	PNP	M12	**XS930R4PAM12**	0.144



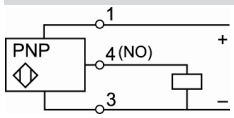
Connecting cables (PUR)*				
Description	**Type**	**Length m**	**Reference**	**Weight kg**
Pre-wired M12 connectors Female, 4-pin Metal clamping	Straight	2	**XZCP1141L2**	0.090
		5	**XZCP1141L5**	0.190
		10	**XZCP1141L10**	0.370
	Elbowed	2	**XZCP1241L2**	0.090
		5	**XZCP1241L5**	0.190
		10	**XZCP1241L10**	0.370

* For more information please refer to general catalog

Wiring schemes

M12 Connector

PNP



Characteristics

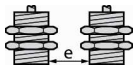
Inductive proximity sensors
OsiSense® XS application
Cylindrical, stainless steel 303 front face
for harsh industrial environments
Three-wire DC, solid-state output

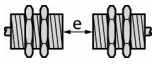
Sensor type	Flush / Non-Flush		XS908R1PAM12 XS908R4PAM12	XS912R1PAM12 XS912R4PAM12	XS918R1PAM12 XS918R4PAM12	XS930R1PAM12 XS930R4PAM12
Product certifications			CE, cULus			
Connection	Connector		M12			
Operating zone	Flush	mm	0…2.4	0…4.8	0…8	0…16
	Non-Flush	mm	0…4.8	0…8	0…16	0…32
Differential travel		%	1…15 (real sensing distance Sr)			
Degree of protection	IEC 60529		IP 67	IP68 (5 meters underwater for 1 month)		
	DIN 40050		IP69K			
Storage temperature		℃	-25 to +70 (-13 to 158℉)			
Operating temperature		℃	-25 to +70 (-13 to 158℉)			
Materials	Case		Stainless steel, 303 grade			
Front face thickness		mm	0.25	0.4	0.6	1.0
Mechanical shock resistance	EN 50102		IK10			
Vibration resistance	IEC 60068-2-6		25 gn, amplitude ± 1 mm (f = 10 to 55 Hz)			
Shock resistance	IEC 60068-2-27		30 gn, duration 11 ms			
Output state indication			Yellow LED, 4 viewing points at 90°(blinking from 0 .8 Sr and Sr)			
Rated supply voltage		V	⎓ 12…24 with protection against reverse polarity			
Voltage limits (including ripple)		V	⎓ 10…30			
Switching capacity		mA	≤ 200 with overload and short circuit protection			
Voltage drop, closed state		V	≤ 2			
Current consumption, no-load		mA	≤ 10			
Maximum switching frequency	Flush	Hz	1000	600	300	100
	Non-Flush	Hz	700	400	200	90
Delays	First set-up	ms	40			
	Response	µs	0.05	0.06		
	Recovery	µs	23	15		

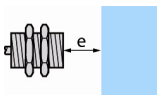
Setting-up

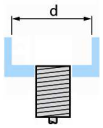
Minimum mounting distances mm, flush version

Side by side		Face to face	Facing a metal object	Mounted in a metal support	
Ø 8	e ≥ 14	e ≥ 15	e ≥ 10	d ≥ 12	
Ø 12	e ≥ 38	e ≥ 30	e ≥ 20	d ≥ 24	
Ø 18	e ≥ 42	e ≥ 40	e ≥ 30	d ≥ 50	
Ø 30	e ≥ 80	e ≥ 70	e ≥ 60	d ≥ 90	



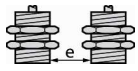


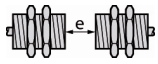


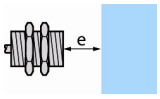


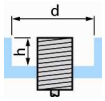
Minimum mounting distances mm, non-flush version

Side by side		Face to face	Facing a metal object	Mounted in a metal support	
Ø 8	e ≥ 52	e ≥ 25	e ≥ 20	d ≥ 20	h ≥ 15
Ø 12	e ≥ 108	e ≥ 40	e ≥ 30	d ≥ 30	h ≥ 22
Ø 18	e ≥ 182	e ≥ 70	e ≥ 60	d ≥ 60	h ≥ 34
Ø 30	e ≥ 270	e ≥ 130	e ≥ 120	d ≥ 120	h ≥ 34

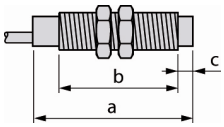








Dimensions



Lengths (mm):
a= Overall
b= Threaded
c= for non flush mountable sensors

	Flush				Non-Flush			
XS•Ø	**M8**	**M12**	**M18**	**M30**	**M8**	**M12**	**M18**	**M30**
a (mm)	66	60	63.5	63.5	66	60	63.5	63.5
b (mm)	46	41	42	42	42	36	35	32
c (mm)	0	0	0	0	4	5	7	10

Reduction coefficient

On target		Flush				Non-Flush			
		M8	**M12**	**M18**	**M30**	**M8**	**M12**	**M18**	**M30**
Steel		1	1	1	1	1	1	1	1
Aluminum		1	1	1	1	1	1	1	1
Brass		1.35	1.3	1.2	1.3	1.4	1.4	1.35	1.2
Cupper		0.9	0.85	0.8	0.9	0.85	0.8	0.9	0.9
Stainless steel	Thickness 1mm	0.3	0.5	0.5	0.35	0.3	No detection	0.3	No detection
	Thickness 2mm	0.6	0.9	0.9	0.7	0.9	0.66	0.6	0.25

Flush mounted	**M8**	**M12**	**M18**	**M30**
Steel	1	0.7	0.75	0.9
Aluminum	0.9	1.15	0.9	0.7
Brass	0.9	1.05	0.75	0.6
Stainless steel	1	0.8	0.8	1.3

Telemecanique Sensors Simply easy!™

Telemecanique Sensors has a 9 decades history manufacturing factory automation and safety sensors. Telemecanique Sensors wide range of products is most reliable and robust hence second to none on the market.

Our aim is to simplify the life of our customers, allowing them to concentrate on their core added value and machine performance. This is why Telemecanique Sensors design and manufacture their products based on the following values:

- Simplicity and modularity
- Easy to choose and select
- Easy to install and maintain

Connect with the experts

- A dedicated team of trained and experienced professionals is available to help you with any sensing application.
- Telemecanique Sensors team is available for support in all your projects. We are ready to become an extension of your team and to share our expertise with you.

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