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

Introducing XS9 one-piece all 316L stainless steel inductive proximity sensors.

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

The **unique one-piece housing,** machined from 316L stainless steel solid bars, is extremely resistant to mechanical shocks and vibrations.

The XS full metal is **highly resistant to water pressure and exposure** providing **IP68** and **IP69K** enclosure protection. With **ECOLAB** compliance, the sensor is resistant to aggressive cleaning processes using chemical agents.

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 needs . 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 objects detection.

Well suited for applications such as:
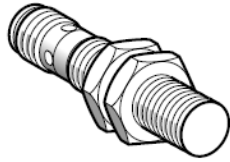• Food and beverage
• Marine
• Mobil vehicles
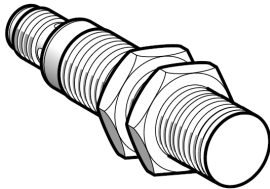
Telemecanique
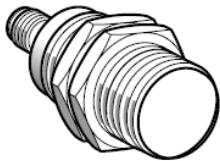**Sensors**

Inductive proximity sensors
OsiSense® XS application
Cylindrical, stainless steel 316L front face
for food & beverage and harsh industrial environments
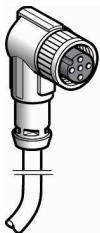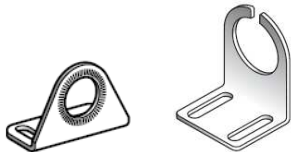Three-wire DC, solid-state output

ECOLAB®

XS9 12●1PAM12

XS9 18●1PAM12

XS9 30●1PAM12

Sensing distance Sn, mm	Function	Output	Connection	Reference	Weight kg
Ø 12 mm, Threaded M12 x 1					
Three-wire 12-24V ⎓, flush mountable					
6	NO	PNP	M12	**XS912S1PAM12**	0.024
Three-wire 12-24V ⎓, non-flush mountable					
10	NO	PNP	M12	**XS912S4PAM12**	0.023
Ø 18 mm, Threaded M18 x 1					
Three-wire 12-24V ⎓, flush mountable					
10	NO	PNP	M12	**XS918S1PAM12**	0.051
Three-wire 12-24V ⎓, non-flush mountable					
20	NO	PNP	M12	**XS918S4PAM12**	0.051
Ø 30 mm, Threaded M30 x 1.5					
Three-wire 12-24V ⎓, flush mountable					
20	NO	PNP	M12	**XS930S1PAM12**	0.140
Three-wire 12-24V ⎓, non-flush mountable					
40	NO	PNP	M12	**XS930S4PAM12**	0.145

Accessories			
Description	**For use with**	**Reference**	**Weight kg**
Stainless steel mounting bracket	Ø 12 sensor	**XSZBS12**	0.090
	Ø 18 sensor	**XUZA118**	0.190
	Ø 30 sensor	**XSZBS30**	0.370

Connecting cables (PVC)*				
Description	**Type**	**Length m**	**Reference**	**Weight kg**
Pre-wired M12 connectors Female, 4-pin Stainless steel clamping ring	Straight	2	**XZCPA1141L2**	0.090
		5	**XZCPA1141L5**	0.190
		10	**XZCPA1141L10**	0.370
	Elbowed	2	**XZCPA1241L2**	0.090
		5	**XZCPA1241L5**	0.190
		10	**XZCPA1241L10**	0.370

* For more information please refer to general catalog

Wiring schemes	
M12 Connector	**PNP**

Telemecanique
Sensors

Inductive proximity sensors
OsiSense® XS application
Cylindrical, stainless steel 316L front face
for food & beverage and harsh industrial environments
Three-wire DC, solid-state output
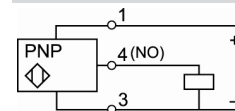
Sensor type	Flush Non-Flush		XS912S1PAM12 XS912S4PAM12		XS918S1PAM12 XS918S4PAM12		XS930S1PAM12 XS930S4PAM12	
Product certifications			CE, cULus					
Connection	Connector		M12					
Operating zone	Flush	mm	0…4.8		0…8		0…16	
	Non-Flush	mm	0…8		0…16		0…32	
Differential travel		%	1…15 (real sensing distance Sr)					
Degree of protection	IEC 60529		IP 68 (5 meters underwater for 1 month)					
	DIN 40050		IP69K					
Storage temperature		℃	-25 to +85 (-13 to 185℉)					
Operating temperature		℃	-25 to +85 (-13 to 185℉)					
Materials	Case		Stainless steel, 316L grade					
Front face thickness		mm	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	600		300		100	
	Non-Flush	Hz	400		200		90	
Delays	First set-up	ms	40					
	Response	µs	0.06					
	Recovery	µs	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 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 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
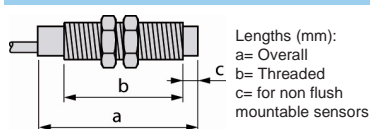
XS•Ø	Flush			Non-Flush		
	M12	M18	M30	M12	M18	M30
a (mm)	60	63.5	63.5	60	63.5	63.5
b (mm)	41	42	42	36	35	32
c (mm)	0	0	0	5	7	10

Reduction coefficient

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

Flush mounted		M12	M18	M30
Steel		0.7	0.75	0.9
Aluminum		1.15	0.9	0.7
Brass		1.05	0.75	0.6
Stainless steel		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.

http://www.tesensors.com

DIA4E XXXXXXXEN