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

Introducing XS9 one-piece stainless steel weld field immune inductive proximity sensors.



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

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.

The XS9 stainless steel uni-body construction is highly resistant to damage from weld slag materials. Superior shielding provides immunity to magnetic fields associated with welding environments.

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.

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

Well suited for applications such as:

- Welding machines
- Robots



## References

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











Sensing distance Sn, mm	Function	Output	Connection	Reference	Weight kg
Ø 12 mm, Threade	ed M12 x 1				
Three-wire 12-24V	, flush n	nountable	e		
6	NO	PNP	M12	XS912RWPAM12	0.024

Ø 18mm, Threaded	I M18 x 1				
Three-wire 12-24V	, flush m	ountable	)		
10	NO	PNP	M12	XS918RWPAM12	0.051

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

<sup>\*</sup> For more information please refer to general catalog

Connecting cables	
M12 Connector	PNP
	1 PNP 4(NO) +

## **Characteristics**

## **Inductive proximity sensors**

# OsiSense® XS application Cylindrical, stainless steel 303 front face

Cylindrical, stainless steel 303 front face for welding environments
Three-wire DC, solid-state output

Sensor type	Flush		XS912RWPAM12	XS918RWPAM12	
Product certifications			CE, cULus		
Connection	Connector		M12		
Operating zone		mm	04.8	08	
Differential travel		%	115 (real sensing distance Sr)		
Degree of protection	IEC 60529		IP 68 (5 meters underwater for 1 month)		
	DIN 40050		IP69K		
Storage temperature		$\mathcal C$	-25 to +70 (-13 to 158°F)		
Operating temperature		${\mathfrak C}$	-25 to +70 (-13 to 158°F)		
Materials	Case		Stainless steel, 303 grade		
Front face thickness		mm	0.6		
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	1224 with protection against reverse polarity		
Voltage limits (including ripple	)	V	<del></del> 1030		
Switching capacity		mΑ	≤ 200 with overload and short circuit protection		
Voltage drop, closed state		V	≤ 2		
Current consumption, no-load		mΑ	≤ 10		
Maximum switching		Hz	15		
frequency					
Delays	First set-up	ms	80		
	Response	ns	100		
	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

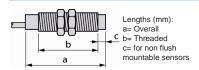
<u>Ø 12</u> <u>e ≥ 38</u> <u>Ø 18</u> <u>e ≥ 42</u>  $\frac{e \ge 30}{e \ge 40}$ 

 $\frac{e \ge 20}{e \ge 30}$ 

 $\frac{d \ge 24}{d \ge 50}$ 



### Dimensions



	Flush				
XS•Ø	M12	M18			
a (mm)	60	63.5			
b (mm)	41	42			
c (mm)	0	0			

### **Reduction coefficient**

target		Flush	
		M12	M18
teel		1	1
luminum		1	1
rass		1.3	1.2
Cupper		0.85	0.8
Stainless steel	Thickness 1mm	0.5	0.5
	Thickness 2mm	0.9	0.9
lush mounted		M12	M18
Steel		0.7	0.75
luminum		1.15	0.9
Brass		1.05	0.75
Stainless steel		0.8	0.8

# Telemecanique Sensors Simply easy!<sup>TM</sup>

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