

## XXS30P1PM12

Ultrasonic sensors XX, ultrasonic sensor,  
plastic, cylindrical M30, straight, 1 m, PNP

## Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XXS
Sensor design	Cylindrical M30
Detection system	Diffuse
[Sn] nominal sensing distance	1 M adjustable with remote teach push-button 1 m software with kit
Material	Plastic
Type of output signal	Discrete
Discrete output function	1 NO or 1 NC programmable
Wiring technique	5-wire
Discrete output type	PNP
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Male connector M12 5 pins
[Sd] sensing range	0.105...1 m
IP degree of protection	IP65 conforming to IEC 60529 IP67

## Complementary

Enclosure material	PBT
Front material	Epoxy Rubber Resin
Supply voltage limits	10...30 V DC
Function available	With synchronisation mode Software configurable
[Sa] assured operating distance	0.105...1 m (teach mode)
Blind zone	105 mm
Transmission frequency	200 kHz
Repeat accuracy	0.1 %
Deviation angle from 90° of object to be detected	-10...10 °
Minimum size of detected object	Cylinder diameter 1 mm at 600 mm
Status LED	Output state: 1 LED (yellow) Echo state: 1 LED (green)
Current consumption	30 mA
Maximum switching current	100 mA with overload and short-circuit protection
Maximum voltage drop	2 V
Switching frequency	11 Hz
Setting-up	Teach mode Configurator software
Maximum delay first up	120 ms
Maximum delay response	45 ms
Maximum delay recovery	45 ms
Marking	CE
Threaded length	39.95 mm
Height	30 mm
Width	30 mm

Depth	64.35 mm
Net weight	0.05 kg

## Environment

Standards	IEC 60947-5-2 CSA C22.2 No 14 UL 508
Product certifications	cULus[RETURN]E2[RETURN]RCM[RETURN]Ecolab
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...80 °C
Vibration resistance	+/- 1 mm conforming to IEC 60068-2-6 (f = 10...55 Hz)
Shock resistance	30 gn in all 3 axes for 11 ms conforming to IEC 60068-2-27
Resistance to electrostatic discharge	8 kV conforming to IEC 61000-4-2
Resistance to electromagnetic fields	10 V/m level 3 conforming to IEC 61000-4-3
Resistance to fast transients	2 kV conforming to IEC 61000-4-4

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.2 cm
Package 1 Width	9.5 cm
Package 1 Length	13.0 cm
Package 1 Weight	96.06 g

## Offer Sustainability

Sustainable offer status	Green Premium product
Circularity Profile	No need of specific recycling operations
California proposition 65	WARNING: This product can expose you to chemicals including: Diisobutyl 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>

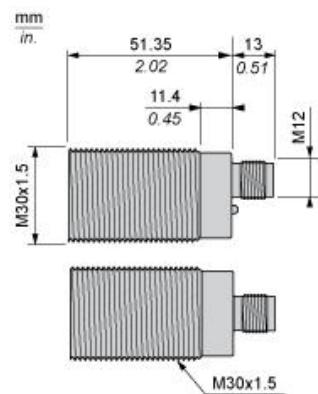
## Contractual warranty

Warranty	18 months
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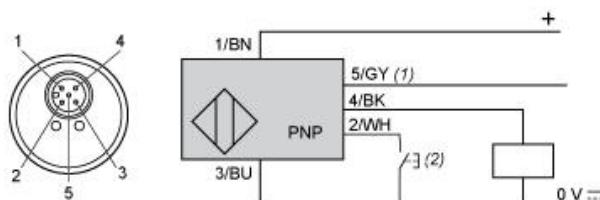
Dimensions

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## Connections

### Connector Wiring

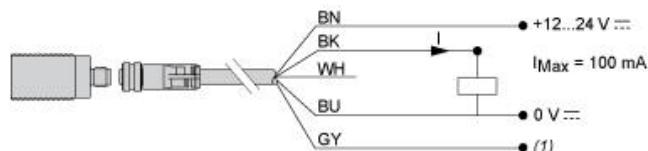


(1) : Synchronization

(2) : External setting pushbutton or XXZPB100 remote teach pushbutton.

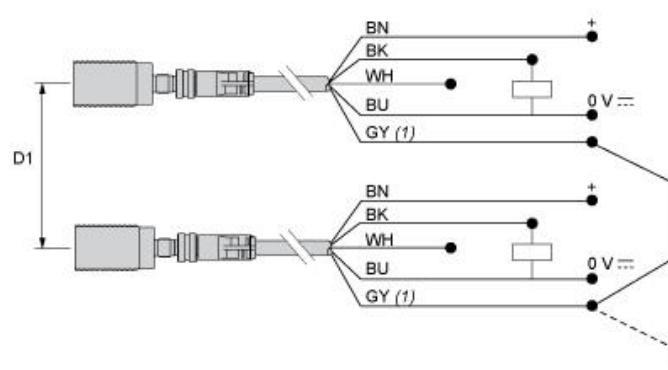
Pin number	Wire color	Description
1	BN: Brown	+12...24VDC
2	WH: White	Input teach
3	BU: Blue	0 VDC
4	BK: Black	Output
5	GY: Grey	Synchronization

### Wiring Scheme. Digital Output (NO or NC)



(1) : Synchronization

### Wiring for the Synchronization Function (Side by Side Application)



(1) : Synchronization

D1 : 1/8 Sn

BN : Brown

WH : White

BU : Blue

BK : Black

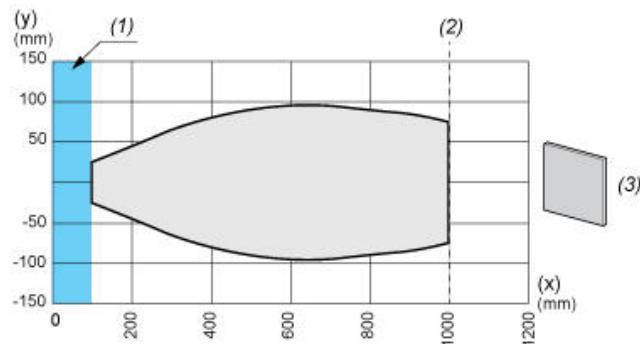
GY : Grey

NOTE: Up to 8 sensors can be synchronized to operate side by side by electrically connecting all pin no.5 (grey) wires together.

To synchronize more than 8 sensors, a PLC output can be used (the pins no.5 must be simultaneously driven by the rising edge of a pulse).

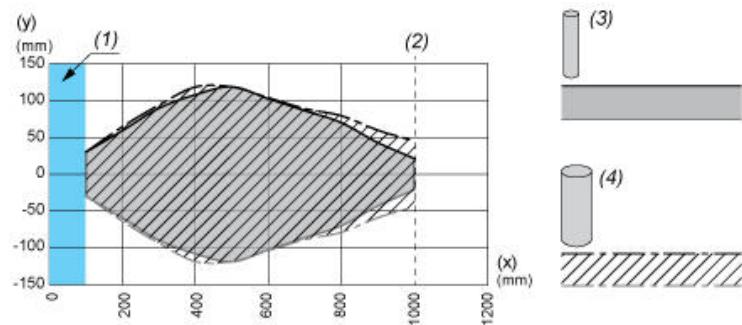
## Performance Curves

### Detection Curve with 100 x 100 mm / 3.94 x 3.94 inches Square Target



(X) : Target distance  
(Y) : Detection limit  
(1) : Blind zone: 105 mm / 4.13 inches  
(2) : Sn max.  
(3) : 100 x 100 mm / 3.94 x 3.94 inches stainless steel plate

### Detection Curve with Round Bar



(X) : Target distance  
(Y) : Detection limit  
(1) : Blind zone: 105 mm / 4.13 inches  
(2) : Sn max.  
(3) : Ø 10 mm / 0.394 inches stainless steel cylinder  
(4) : Ø 25 mm / 0.984 inches stainless steel cylinder