

Ultrasonic sensors XX, ultrasonic sensor  
cylindrical M30, Sn 1 m, NO, M12 connector



Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XX6
Sensor design	Cylindrical M30
Detection system	Diffuse
[Sn] nominal sensing distance	1 m adjustable with remote teach push-button
Material	Plastic
Type of output signal	Discrete
Discrete output function	1 NO
Wiring technique	3-wire
Discrete output type	NPN
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Male connector M12 4 pins
[Sd] sensing range	0.1...1 m
Beam angle	7 °
IP degree of protection	IP67 conforming to IEC 60529

Complementary

Enclosure material	Valox
Front material	Epoxy
Thread type	M30 x 1.5
Supply voltage limits	10...28 V DC
[Sa] assured operating distance	0.1...1 m (teach mode)
Maximum differential travel	2.5 mm
Blind zone	0...100 mm
Transmission frequency	180 kHz
Repeat accuracy	0.9 %
Deviation angle from 90° of object to be detected	-7...7 °
Minimum size of detected object	Cylinder diameter 50.8 mm at 1 m
Status LED	Setting-up assistance: 1 LED (dual colour) Supply on: 1 LED (green) Output state: 1 LED (yellow)
Current consumption	60 mA
Maximum switching current	100 mA with overload and short-circuit protection
Maximum voltage drop	1 V
Switching frequency	<= 70 Hz
Maximum delay first up	75 ms
Maximum delay response	15 ms
Maximum delay recovery	75 ms
Marking	CE
Threaded length	37 mm
Height	96 mm
Width	30 mm
Net weight	0.09 kg

## Environment

Standards	IEC 60947-5-2
Product certifications	UL[RETURN]cCSAus
Ambient air temperature for operation	0...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 level 4 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	1 kV level 3 conforming to IEC 61000-4-4

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.8 cm
Package 1 Width	7.8 cm
Package 1 Length	15.5 cm
Package 1 Weight	125.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	15
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.558 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
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>

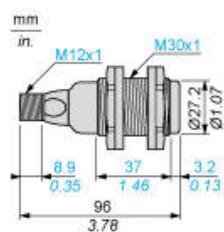
## Contractual warranty

Warranty	18 months
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Dimensions

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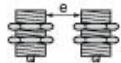


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### Minimum Mounting Distances

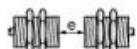
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#### Side by side



e : respect the distances indicated on the detection curves

#### Face to face



$e > 4 \times S_n$

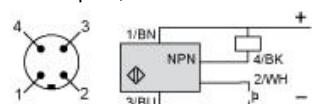
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### Wiring Diagram

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#### 3-Wire Type

NO outputs, NPN



- (1) (+)
- (2) Teach input (WH)
- (3) (-)
- (4) Output

BN Brown

WH White

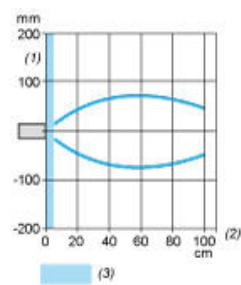
BU Blue

BK Black

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## Curves

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- (1) Parallel movement
- (2) Distance
- (3) Blind zone for diffuse sensors.