

# Product data sheet

Specifications



## Ultrasonic sensors XX, ultrasonic sensor parallelepipedic, Sn 0.5 m, NO, M12 connector

XX7V1A1PAM12

### Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XX7
Sensor design	Flat form 18 x 33 x 60 + cylindrical M18
Detection system	Diffuse
[Sn] nominal sensing distance	0.5 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	PNP
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Male connector M12 4 pins
[Sd] sensing range	0.051...0.508 m
Beam angle	12 °
IP degree of protection	IP67 conforming to IEC 60529

### Complementary

Enclosure material	Valox
Front material	Epoxy
Supply voltage limits	10...28 V DC
[Sa] assured operating distance	0.051...0.508 m (teach mode)
Maximum differential travel	2.5 mm
Blind zone	0...51 mm
Transmission frequency	300 kHz
Repeat accuracy	1.27 %
Minimum size of detected object	Cylinder diameter 2.5 mm at 0.15 m Flat bar 1 mm wide at 0.15 m
Status LED	Supply on: 1 LED (green)

Output state: 1 LED (yellow)

<b>Current consumption</b>	40 mA
<b>Maximum switching current</b>	100 mA
<b>Maximum voltage drop</b>	1 V
<b>Switching frequency</b>	<= 40 Hz
<b>Maximum delay first up</b>	100 ms
<b>Maximum delay response</b>	10 ms
<b>Maximum delay recovery</b>	10 ms
<b>Marking</b>	CE
<b>Height</b>	44 mm
<b>Width</b>	18 mm
<b>Depth</b>	60 mm

## Environment

<b>Standards</b>	IEC 60947-5-2
<b>Product certifications</b>	UL
<b>Ambient air temperature for operation</b>	-20...65 °C
<b>Ambient air temperature for storage</b>	-40...80 °C
<b>Vibration resistance</b>	+/-1 mm conforming to IEC 60068-2-6 (f = 10...55 Hz)
<b>Shock resistance</b>	30 gn in all 3 axes for 11 ms conforming to IEC 60068-2-27
<b>Resistance to electrostatic discharge</b>	8 kV level 4 conforming to IEC 61000-4-2
<b>Resistance to electromagnetic fields</b>	10 V/m level 3 conforming to IEC 61000-4-3
<b>Resistance to fast transients</b>	1 kV level 3 conforming to IEC 61000-4-4

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	4.0 cm
<b>Package 1 Width</b>	8.5 cm
<b>Package 1 Length</b>	8.7 cm
<b>Package 1 Weight</b>	60.0 g
<b>Unit Type of Package 2</b>	S01
<b>Number of Units in Package 2</b>	15
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	15.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	1.17 kg
<b>Unit Type of Package 3</b>	S02
<b>Number of Units in Package 3</b>	30
<b>Package 3 Height</b>	15.0 cm
<b>Package 3 Width</b>	30.0 cm

<b>Package 3 Length</b>	40.0 cm
<b>Package 3 Weight</b>	2.238 kg

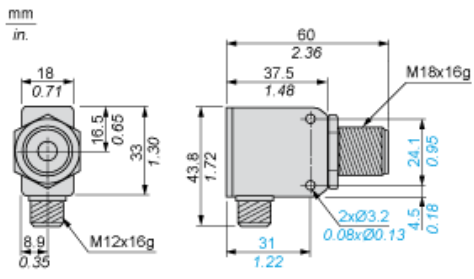
## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	Yes
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Diisononyl 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>

## Contractual warranty

<b>Warranty</b>	18 months
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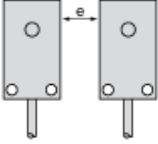
Dimensions



**Minimum Mounting Distances**

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**Side by side**



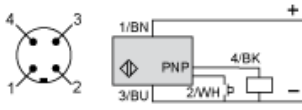
e :      respect the distances indicated on the detection curves

**Wiring Diagram**

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**3-Wire Type**

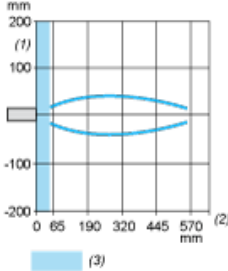
NO outputs, PNP



- |           |                  |
|-----------|------------------|
| (1)       | (+)              |
| (2)       | Teach input (WH) |
| (3)       | (-)              |
| (4)       | Output           |
| <b>BN</b> | Brown            |
| <b>WH</b> | White            |
| <b>BU</b> | Blue             |
| <b>BK</b> | Black            |

Curves

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

Recommended replacement(s)