

# Product data sheet

Specifications



## Ultrasonic sensors XX, ultrasonic sensor cylindrical M18, Sn 0.5 m, NO, M12 connector

XX518A3NAM12

### Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XX5
Sensor design	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	NPN
[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	6 °
IP degree of protection	IP67 conforming to IEC 60529

### Complementary

Enclosure material	Valox
Front material	Epoxy
Thread type	M18 x 1
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 %

<b>Deviation angle from 90° of object to be detected</b>	-7...7 °
<b>Minimum size of detected object</b>	Cylinder diameter 2.5 mm at 0.15 m
<b>Status LED</b>	Supply on: 1 LED (green) Output state: 1 LED (yellow)
<b>Current consumption</b>	40 mA
<b>Maximum switching current</b>	100 mA with overload and short-circuit protection
<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>Threaded length</b>	43 mm
<b>Height</b>	18 mm
<b>Width</b>	18 mm
<b>Depth</b>	79 mm
<b>Net weight</b>	0.033 kg

## Environment

<b>Standards</b>	IEC 60947-5-2
<b>Product certifications</b>	UL cCSAus
<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 Weight</b>	50.0 g
<b>Package 1 Height</b>	9.5 cm
<b>Package 1 width</b>	7.1 cm
<b>Package 1 Length</b>	3.6 cm
<b>Unit Type of Package 2</b>	S01
<b>Number of Units in Package 2</b>	15
<b>Package 2 Weight</b>	850.0 g
<b>Package 2 Height</b>	15 cm

Package 2 width	15 cm
Package 2 Length	40 cm

## Offer Sustainability

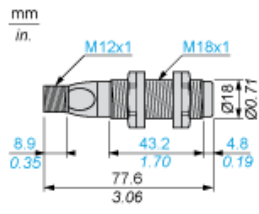
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	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

Warranty	18 months
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Dimensions

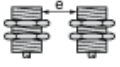
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**Minimum Mounting Distances**

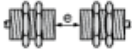
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**Side by side**



e :      respect the distances indicated on the detection curves

**Face to face**



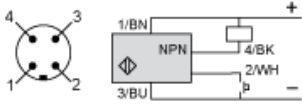
e >      4 x Sn

**Wiring Diagram**

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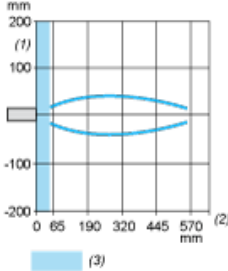
**3-Wire Type**

NO outputs, NPN



- |           |                  |
|-----------|------------------|
| (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



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