

# Product data sheet

Specifications



## Ultrasonic sensors XX, ultrasonic sensor cylindrical M18, Sn 0.15 m, 2 NO, M12 connector

XX518A1KAM12

### 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** 0.15 m fixed

**Material** Plastic

**Type of output signal** Discrete

**Discrete output function** 2 NO

**Wiring technique** 4-wire

**Discrete output type** PNP and NPN

**[Us] rated supply voltage** 12...24 V DC with reverse polarity protection

**Electrical connection** Male connector M12 4 pins

**[Sd] sensing range** 0.025...0.152 m

**Beam angle** 8 °

**IP degree of protection** IP67 conforming to IEC 60529

### Complementary

**Enclosure material** ULTEM

**Front material** Silicone

**Thread type** M18 x 1

**Supply voltage limits** 10...28 V DC

**[Sa] assured operating distance** 0.025...0.152 m

**Maximum differential travel** 0.35 mm

**Blind zone** 0...19 mm

**Transmission frequency** 500 kHz

**Repeat accuracy** 0.7 %

<b>Deviation angle from 90° of object to be detected</b>	-10...10 °
<b>Minimum size of detected object</b>	Cylinder diameter 1.6 mm
<b>Current consumption</b>	60 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>	<= 80 Hz
<b>Maximum delay first up</b>	350 ms
<b>Maximum delay response</b>	3 ms
<b>Maximum delay recovery</b>	3 ms
<b>Marking</b>	CE
<b>Threaded length</b>	51 mm
<b>Height</b>	18 mm
<b>Width</b>	18 mm
<b>Depth</b>	65 mm
<b>Net weight</b>	0.033 kg

## Environment

<b>Standards</b>	IEC 60947-5-2
<b>Product certifications</b>	cULus
<b>Ambient air temperature for operation</b>	0...50 °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>	8.6 cm
<b>Package 1 Weight</b>	53.0 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	30
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	2.005 kg

## Offer Sustainability

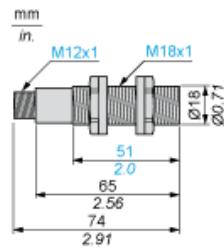
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	Yes
Environmental Disclosure	<a href="#">Product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

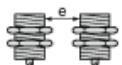
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### Minimum Mounting Distances

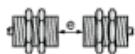
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#### Side by side



**e :** respect the distances indicated on the detection curves

#### Face to face

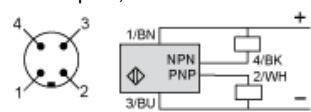


**e >** 4 x Sn

### Wiring Diagram

#### 4-Wire Type

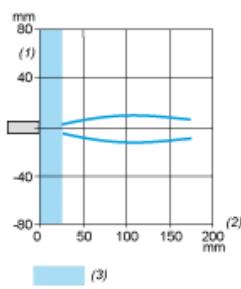
NO outputs, PNP and NPN



- (1) (+)  
(2) PNP output  
(3) (-)  
(4) NPN output  
BN Brown  
WH White  
BU Blue  
BK Black

### Curves

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(1) Parallel movement

(2) Distance

(3) Blind zone for diffuse sensors.

### Recommended replacement(s)