

# Product datasheet

Specifications



## ultrasonic sensor cylindrical M12 - Sn 0.05 m - 2NO - M8 connector

XX512A1KAM8

### Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XX5
Sensor design	Cylindrical M12
Detection system	Diffuse
[Sn] nominal sensing distance	0.05 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 M8 4 pins
[Sd] sensing range	0.0064...0.051 m
Beam angle	11 °
IP degree of protection	IP67 conforming to IEC 60529

### Complementary

Enclosure material	ULTEM
Front material	Epoxy
Thread type	M12 x 1
Supply voltage limits	10...28 V DC
[Sa] assured operating distance	0.0064...0.051 m
Maximum differential travel	0.7 mm
Blind zone	0...6.4 mm
Transmission frequency	500 kHz
Repeat accuracy	0.7 %

Deviation angle from 90° of object to be detected	-10...10 °
Minimum size of detected object	Cylinder diameter 2.5 mm Flat bar 1 mm wide
Status LED	Supply on: 1 LED (green) Output state: 1 LED (yellow)
Current consumption	25 mA
Maximum switching current	100 mA with overload and short-circuit protection
Maximum voltage drop	1 V
Switching frequency	<= 125 Hz
Maximum delay first up	20 ms
Maximum delay response	2 ms
Maximum delay recovery	2 ms
Marking	CE
Threaded length	38 mm
Height	12 mm
Width	12 mm
Depth	50 mm
Net weight	0.011 kg

## Environment

Standards	IEC 60947-5-2
Product certifications	UL
Ambient air temperature for operation	-20...65 °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 Weight	28.0 g
Package 1 Height	9.5 cm
Package 1 width	4 cm
Package 1 Length	6.6 cm
Unit Type of Package 2	S02
Number of Units in Package 2	35
Package 2 Weight	1.258 kg
Package 2 Height	15 cm

Package 2 width	30 cm
Package 2 Length	40 cm

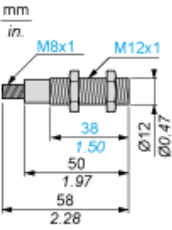
Offer Sustainability

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>

Contractual warranty

Warranty	18 months
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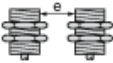
Dimensions



Minimum Mounting Distances

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Side by side



e :      respect the distances indicated on the detection curves

Face to face



e >      4 x Sn

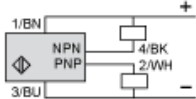
Wiring Diagram

4-Wire Type



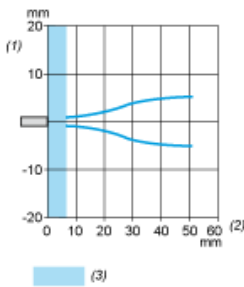
- (1) (+)
- (2) PNP output
- (3) (-)
- (4) NPN output

NO outputs, PNP and NPN



- BN Brown
- WH White
- BU Blue
- BK Black

Curves



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