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 %

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

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	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

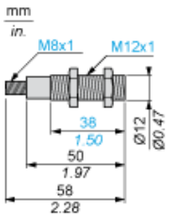
Contractual warranty

Warranty	18 months

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Dimensions Drawings

Dimensions

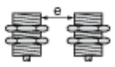


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Mounting and Clearance

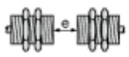
Minimum Mounting Distances

Side by side



e : respect the distances indicated on the detection curves

Face to face



e > 4 x Sn

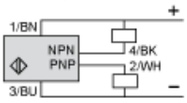
Wiring Diagram

4-Wire Type



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

NO outputs, PNP and NPN

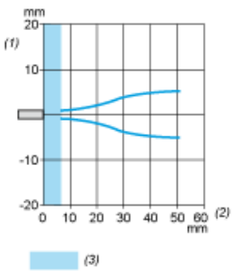


BN Brown
WH White
BU Blue
BK Black

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Performance Curves

Curves



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