

# Product data sheet

Specifications



## Ultrasonic sensors XX, ultrasonic sensor cylindrical M30, 2 levels, Sn 2 m, 2 NO, M12

XX230A22PA00M12

Discontinued on: 10 March 2022

Discontinued

### Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XX2
Sensor design	Cylindrical M30
Detection system	Diffuse
[Sn] nominal sensing distance	2 m adjustable with teach push-button
Material	Plastic
Type of output signal	Discrete
Discrete output function	2 NO
Wiring technique	4-wire
Discrete output type	PNP
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Male connector M12 4 pins
Product specific application	For 2 levels monitoring
[Sd] sensing range	0.12...2 m
Beam angle	10 °
IP degree of protection	IP67 conforming to IEC 60529

### Complementary

Enclosure material	ULTEM
Front material	Silicone
Thread type	M30 x 1.5
Supply voltage limits	10...28 V DC
Function available	Without synchronisation mode
[Sa] assured operating distance	0.12...2 m (teach mode)
Maximum differential travel	2.5 mm
Blind zone	0...120 mm

Transmission frequency	200 kHz
Repeat accuracy	0.9 %
Deviation angle from 90° of object to be detected	-10...10 °
Minimum size of detected object	Cylinder diameter 1.6 mm at 0.635 m
Status LED	Output state: 1 LED (green/red (flashing)) Setting-up assistance: 1 LED (green/red (flashing)) Distance indication: 1 LED (yellow)
Current consumption	100 mA
Maximum switching current	100 mA with overload and short-circuit protection
Maximum voltage drop	1 V
Maximum delay first up	1000 ms
Maximum delay response	150 ms
Maximum delay recovery	1000 ms
Marking	CE
Threaded length	45 mm
Height	35 mm
Width	35 mm
Depth	85 mm
Net weight	0.091 kg

## Environment

Standards	IEC 60947-5-2
Product certifications	cCSAus UL
Ambient air temperature for operation	0...50 °C
Ambient air temperature for storage	-10...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	135.987 g
Package 1 Height	7.6 cm
Package 1 width	7.6 cm
Package 1 Length	15.5 cm
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Weight	2.76 kg

Package 2 Height	30 cm
Package 2 width	30 cm
Package 2 Length	40 cm

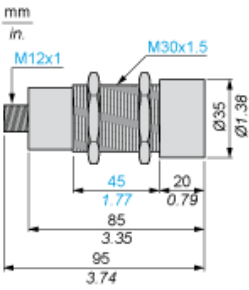
Offer Sustainability

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>
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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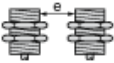
Dimensions



Minimum Mounting Distances

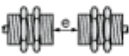
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Side by side



e :      respect the distances indicated on the detection curves

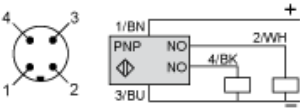
Face to face



e >      4 x Sn

Wiring Diagram

NO + NO outputs, PNP



- (1)

(2)

(3)

(4)

BN

WH

BU

BK
- (+) Brown

NO output (White)

(-) Blue

NO output (Black)

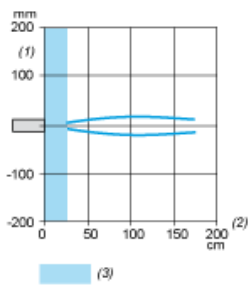
Brown

White

Blue

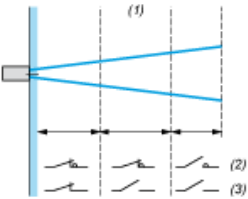
Black

Curves



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

Operating Curves



- (1) Adjustable detection zone
- (2) Output pin 4 BK
- (3) Output pin 2 WH

Recommended replacement(s)

XX230A22PA00M12 is replaced by:

1x



Ultrasonic sensors XX, ultrasonic sensor, plastic, cylindrical M30, straight, 2 m, PNP  
XXS30P2PM12