

# XX230A21HA00M12

Ultrasonic sensors XX, ultrasonic sensor cylindrical M30, Sn=2 m, pump in NO PNP sync, M12



## Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	Application
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	1 NC + 1 NO
Wiring technique	5-wire
Discrete output type	PNP
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Male connector M12 5 pins
Product specific application	For 2 filling 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	With 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[RETURN]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

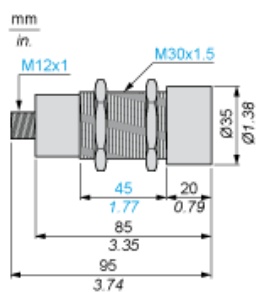
## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.2 cm
Package 1 Width	13 cm
Package 1 Length	9.5 cm
Package 1 Weight	126 g

## Offer Sustainability

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>
For all Reach Rohs enquiries contact us at	<a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>

## Dimensions



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## Minimum Mounting Distances

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### Side by side



e :    respect the distances indicated on the detection curves

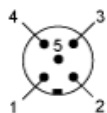
### Face to face



$e > 4 \times S_n$

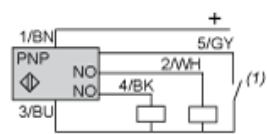
## Wiring Diagram

### Connector



- (1) (+) Brown
- (2) NO output (White)
- (3) (-) Blue
- (4) NO output (Black)
- (5) Synchronisation (Grey)

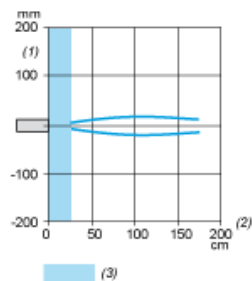
### NO + NO Outputs, PNP



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

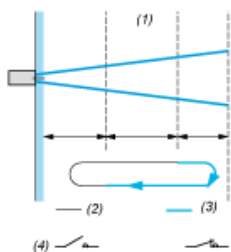
- (1) Open = burst
- Close = no burst

## Curves



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

## Operating Curves



- (1) Adjustable detection zone
- (2) Output deactivated
- (3) Output activated
- (4) NO output