

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



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 %
Deviation angle from 90° of object to be detected	-10...10 °
Minimum size of detected object	Cylinder diameter 1.6 mm
Current consumption	60 mA
Maximum switching current	100 mA with overload and short-circuit protection
Maximum voltage drop	1 V
Switching frequency	<= 80 Hz
Maximum delay first up	350 ms
Maximum delay response	3 ms
Maximum delay recovery	3 ms
Marking	CE
Threaded length	51 mm
Height	18 mm
Width	18 mm
Depth	65 mm
Net weight	0.033 kg

## Environment

Standards	IEC 60947-5-2
Product certifications	cULus
Ambient air temperature for operation	0...50 °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 Height	4.0 cm
Package 1 Width	8.5 cm
Package 1 Length	8.6 cm
Package 1 Weight	53.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	30
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.005 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Diisobutyl 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>

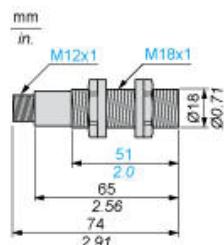
## Contractual warranty

Warranty	18 months
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Dimensions

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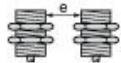


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### Minimum Mounting Distances

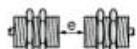
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#### Side by side



e : respect the distances indicated on the detection curves

#### Face to face



$e > 4 \times S_n$

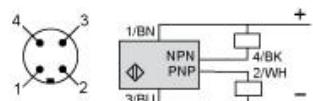
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## Wiring Diagram

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### 4-Wire Type

NO outputs, PNP and NPN



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

BN Brown

WH White

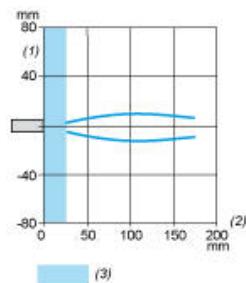
BU Blue

BK Black

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## Curves

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