

Ultrasonic sensors XX, ultrasonic sensor
cylindrical M18, Sn 0.5 m, 4...20 mA, M12
connector

Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XX9
Sensor design	Cylindrical M18
Detection system	Diffuse
[Sn] nominal sensing distance	0.5 m adjustable with remote teach push-button
Material	Plastic
Type of output signal	Analogue
Wiring technique	4-wire
Analogue output function	4...20 mA
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Male connector M12 4 pins
[Sd] sensing range	0.051...0.508 m
Beam angle	6 °
IP degree of protection	IP67 conforming to IEC 60529

Complementary

Enclosure material	Valox
Front material	Epoxy
Thread type	M18 x 1
Supply voltage limits	10...28 V DC
[Sa] assured operating distance	0.051...0.508 m (teach mode)
Blind zone	0...51 mm
Transmission frequency	300 kHz
Repeat accuracy	1.27 %
Deviation angle from 90° of object to be detected	-7...7 °
Minimum size of detected object	Cylinder diameter 1.6 mm
Status LED	Setting-up assistance: 1 LED (dual colour) Supply on: 1 LED (green) Output state: 1 LED (yellow)
Current consumption	40 mA
Maximum switching capacity	10...500 Ohm overload and short-circuit protection
Maximum voltage drop	1 V
Setting-up	Slope selection using teach button
Maximum delay first up	100 ms
Maximum delay response	25 ms
Maximum delay recovery	25 ms
Marking	CE
Threaded length	43 mm
Height	18 mm
Width	18 mm
Depth	79 mm
Net weight	0.033 kg

Environment

Standards	IEC 60947-5-2
Product certifications	cCSAus[RETURN]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 Height	1.801 cm
Package 1 Width	7.838 cm
Package 1 Length	1.801 cm
Package 1 Weight	226.796 g
Unit Type of Package 2	S01
Number of Units in Package 2	15
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.602 kg

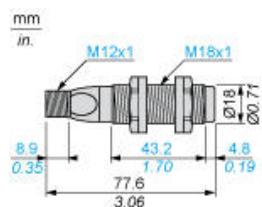
Offer Sustainability

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 www.P65Warnings.ca.gov
For all Reach Rohs enquiries contact us at	sustainability@tesensors.com

Contractual warranty

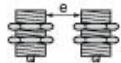
Warranty	18 months
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Dimensions



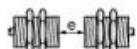
Minimum Mounting Distances

Side by side



e : respect the distances indicated on the detection curves

Face to face



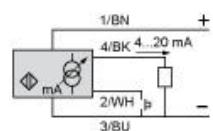
$e > 4 \times S_n$

Wiring Diagram

4-Wire Type



- (1) (+)
- (2) Return signal or teach
- (3) (-)
- (4) Output signal



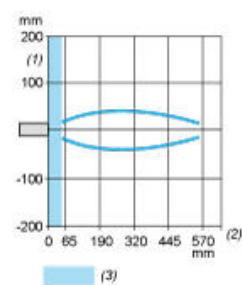
BN Brown

WH White

BU Blue

BK Black

Curves



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