



Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XXS
Sensor design	Cylindrical M30
Material	Plastic
Type of output signal	Analogue + discrete
Discrete output function	1 NO or 1 NC programmable
Wiring technique	5-wire
Discrete output type	PNP
Analogue output function	4...20 mA
[Sd] sensing range	0.290...8 m

Complementary

Enclosure material	PBT
Front material	Epoxy Rubber Resin
Thread type	M30 x 1.5
Function available	With synchronisation mode Software configurable
Blind zone	290 mm
Transmission frequency	75 kHz
Repeat accuracy	0.1 %
Deviation angle from 90° of object to be detected	-4...12 °
Current consumption	50 mA
Maximum voltage drop	2 V
Switching frequency	<= 2 Hz
Setting-up	Teach mode Configurator software
Maximum delay first up	600 ms

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

Maximum delay recovery	500 ms
Marking	CE CULus
Threaded length	43.2 mm
Height	30 mm
Width	43.2 mm
Depth	116.3 mm
Product weight	0.14 kg

Environment

Standards	EN/IEC 60947-5-2 CSA C22.2 No 14 UL 508
Product certifications	cULus E2 Ecolab
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C

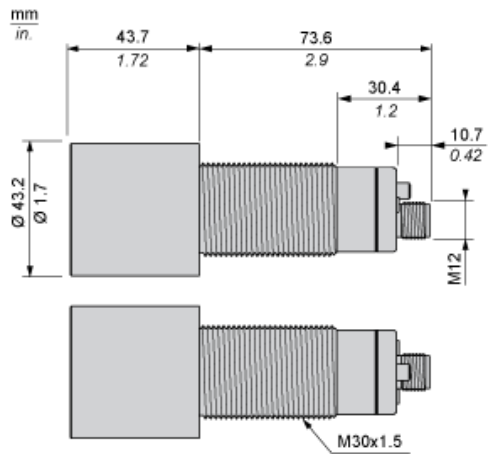
Offer Sustainability

EU RoHS Directive	Not applicable, out of EU RoHS legal scope
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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 www.P65Warnings.ca.gov

Contractual warranty

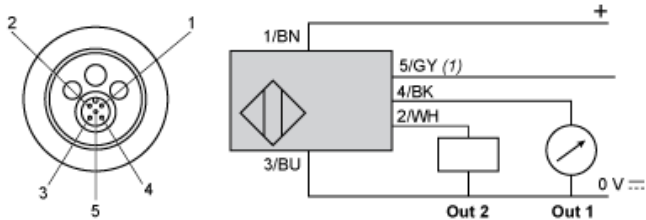
Warranty	18 months
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Dimensions



Connections

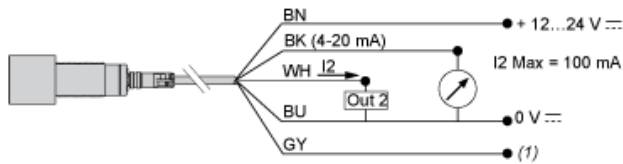
Connector Wiring



(1): Synchronization

Pin number	Wire color	Description
1	BN: Brown	+12...24VDC
2	WH: White	Input teach
3	BU: Blue	0 VDC
4	BK: Black	Output
5	GY: Grey	Synchronization

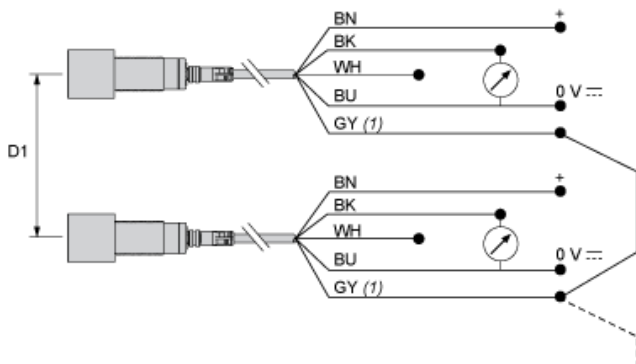
Wiring Scheme. Analog Output



(1): Synchronization

4-20 mA For 12 VDC, load $\leq 250 \Omega$
For 24 VDC, load $\leq 850 \Omega$

Wiring for the Synchronization Function (Side by Side Application)



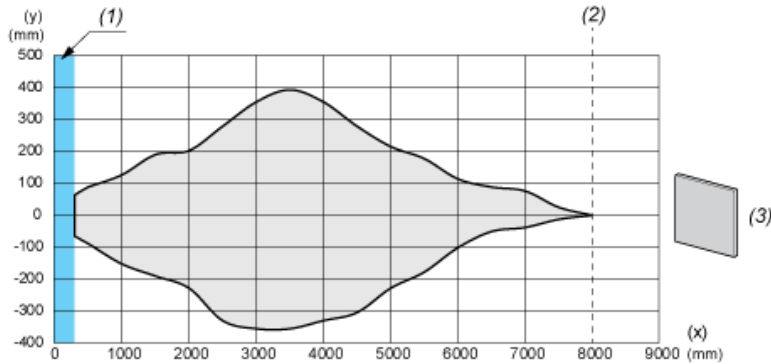
(1): Synchronization

- D1: 1/8 Sn
- BN: Brown
- WH: White
- BU: Blue
- BK: Black
- GY: Grey

NOTE: Up to 8 sensors can be synchronized to operate side by side by electrically connecting all pin no.5 (grey) wires together.
To synchronize more than 8 sensors, a PLC output can be used (the pins no.5 must be simultaneously driven by the rising edge of a pulse).

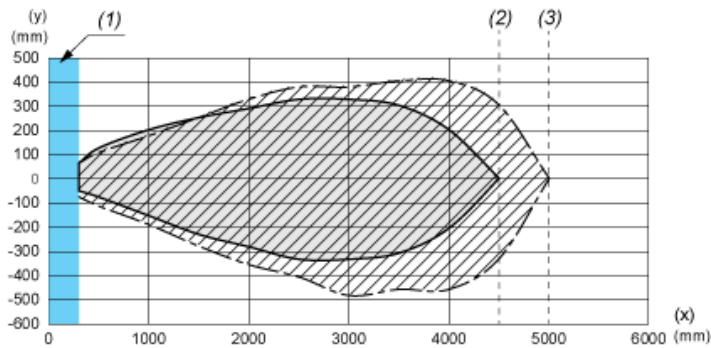
Performance Curves

Detection Curve with 100 x 100 mm / 3.94 x 3.94 inches Square Target



- (X) : Target distance
- (Y) : Detection limit
- (1) : Blind zone: 290 mm / 11.41 inches
- (2) : Sn max.
- (3) : 100 x 100 mm / 3.94 x 3.94 inches stainless steel plate

Detection Curve with Round Bar



- (X) : Target distance
- (Y) : Detection limit
- (1) : Blind zone: 290 mm / 11.41 inches
- (2) : Sn max. with \varnothing 10 mm / 0.394 inches cylinder
- (3) : Sn max. with \varnothing 25 mm / 0.984 inches cylinder
- (4) : \varnothing 10 mm / 0.394 inches stainless steel cylinder
- (5) : \varnothing 25 mm / 0.984 inches stainless steel cylinder