Product data sheet
Characteristics

XXS30B2AM12
Ultrasonic sensors XX, ultrasonic sensor, metal, cylindrical M30, straight, 2 m, 4...20 mA



Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XXS
Sensor design	Cylindrical M30
Detection system	Diffuse
[Sn] nominal sensing distance	2 M adjustable with remote teach push-button 2 m software with kit
Material	Metal
Type of output signal	Analogue
Wiring technique	5-wire
Analogue output function	4...20 mA
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Male connector M12 5 pins
[Sd] sensing range	0.155…2 m
IP degree of protection	IP65 conforming to IEC 60529 IP67

Complementary

Enclosure material	Nickel plated brass
Front material	Epoxy Rubber Resin
Supply voltage limits	10…30 V DC
Function available	With synchronisation mode Software configurable
[Sa] assured operating distance	0.155…2 m (teach mode)
Blind zone	155 mm
Transmission frequency	120 kHz
Repeat accuracy	0.1 %
Deviation angle from 90° of object to be detected	-12…12 °
Minimum size of detected object	Cylinder diameter 1 mm at 1.4 m
Status LED	Output state: 1 LED (yellow) Echo state: 1 LED (green)
Current consumption	65 mA
Maximum switching capacity	250 Ohm with 12 V DC overload and short-circuit protection 850 Ohm with 24 V DC
Setting-up	Teach mode Configurator software
Maximum delay first up	250 ms
Maximum delay recovery	200 ms
Marking	CE
Threaded length	75.75 mm
Height	30 mm
Width	30 mm
Depth	102.15 mm
Net weight	0.19 kg

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
Neither TMSS Holding nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Environment

Standards	IEC 60947-5-2 CSA C22.2 No 14 UL 508
Product certifications	cULus[RETURN]E2[RETURN]RCM[RETURN]Ecolab
Ambient air temperature for operation	-25…70 °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 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	2 kV conforming to IEC 61000-4-4

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.08 cm
Package 1 Width	8.13 cm
Package 1 Length	13.46 cm
Package 1 Weight	0.23 kg

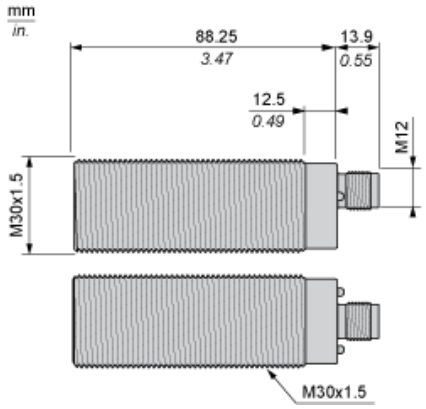
Offer Sustainability

Sustainable offer status	Green Premium product
Circularity Profile	No need of specific recycling operations
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
For all Reach Rohs enquiries contact us at	sustainability@tesensors.com

Contractual warranty

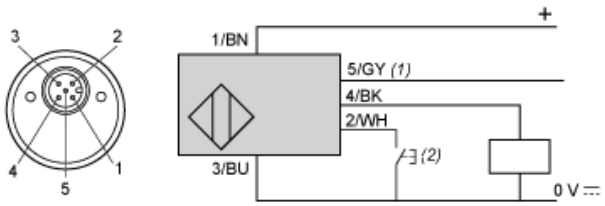
Warranty	18 months

Dimensions



Connections

Connector Wiring



(1) : Synchronization
(2) : External setting pushbutton or XXZPB100 remote teach pushbutton.

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

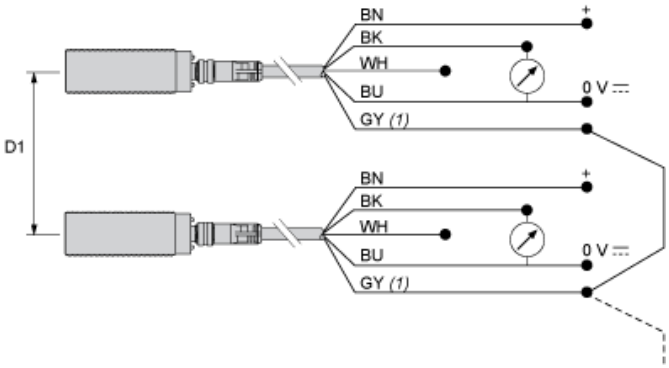
Wiring Scheme. Analog Output



(1) : Synchronization

4-20 mA: For 12 VDC, load ≤ 250 Ω
For 24 VDC, load ≤ 850 Ω

Wiring for the Synchronization Function (Side by Side Application)

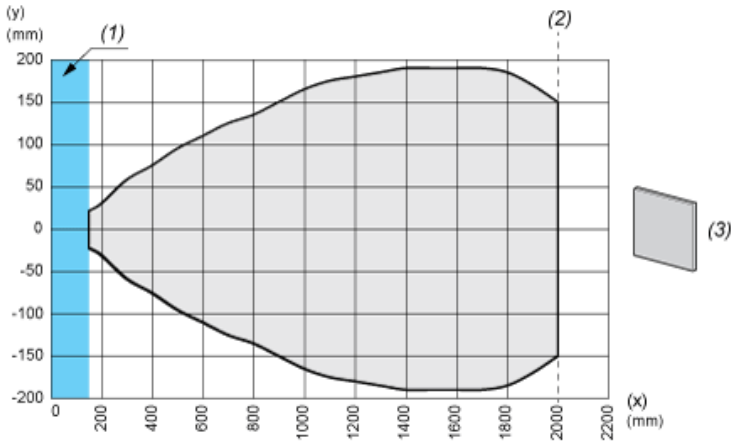


(1) : Synchronization
D1 : 1/8 Sn
BN : Brown
WH : White
BU : Blue
BK : Black
GY : Grey

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).

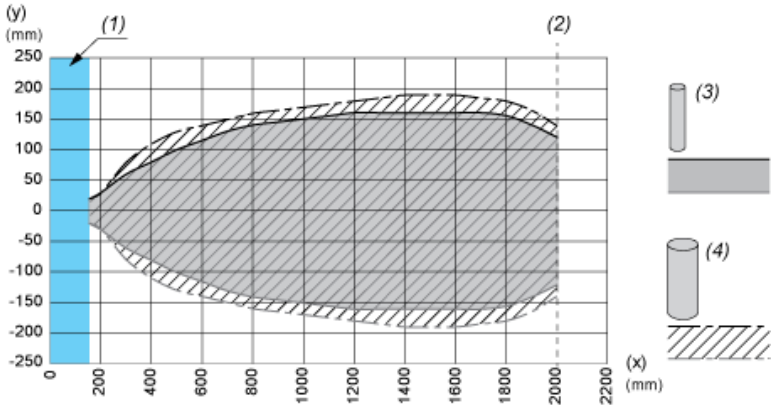
Performance Curves

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



(X) : Target distance
(Y) : Detection limit
(1) : Blind zone: 155 mm / 6.10 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: 155 mm / 6.10 inches
(2) : Sn max.
(3) : Ø 10 mm / 0.394 inches stainless steel cylinder
(4) : Ø 25 mm / 0.984 inches stainless steel cylinder