

# XXS30P8PPM12

Ultrasonic sensor, plastic, cylindrical M30, straight, 8 m, 2 PNP



## 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<br>Reflex  |
| [Sn] nominal sensing distance | 8 M adjustable with teach push-button<br>8 m software with kit |
| Material                      | Plastic  |
| Type of output signal         | Discrete   |
| Discrete output function      | 2 x (1 NO or 1 NC programmable)                                |
| 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                                      |
| [Sd] sensing range            | 0.290...8 m  |
| IP degree of protection       | IP65 conforming to IEC 60529<br>IP67                           |

## Complementary

|   |   |
|---|---|
| Enclosure material                                | PBT   |
| Front material                                    | Epoxy<br>Rubber<br>Resin  |
| Thread type                                       | M30 x 1.5   |
| Supply voltage limits                             | 10...30 V DC  |
| Function available                                | With synchronisation mode<br>Software configurable  |
| [Sa] assured operating distance                   | 0.290...8 m (teach mode)  |
| Blind zone  | 290 mm  |
| Transmission frequency                            | 75 kHz  |
| Repeat accuracy                                   | 0.1 %   |
| Deviation angle from 90° of object to be detected | -4...12 °   |
| Minimum size of detected object                   | Cylinder diameter 12 mm at 1.8 m  |
| Status LED  | Output state: 1 LED (green/yellow)<br>Output state: 1 LED (multi-colour)<br>Echo state: 1 LED (green) |
| Current consumption                               | 50 mA   |
| Maximum switching current                         | 100 mA with overload and short-circuit protection   |
| Maximum voltage drop                              | 2 V   |
| Switching frequency                               | <= 2 Hz   |
| Setting-up  | Teach mode<br>Configurator software   |
| Maximum delay first up                            | 600 ms  |
| Maximum delay response                            | 300 ms  |
| Maximum delay recovery                            | 300 ms  |
| Marking   | CE<br>CULus   |

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 Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                 |          |
|-----------------|----------|
| Threaded length | 43.2 mm  |
| Height          | 30 mm    |
| Width           | 43.2 mm  |
| Depth           | 116.3 mm |
| Net weight      | 0.14 kg  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Standards                             | EN/IEC 60947-5-2<br>CSA C22.2 No 14<br>UL 508              |
| Product certifications                | CULus<br>E2<br>Ecolab                                      |
| Ambient air temperature for operation | -25...70 °C  |
| Ambient air temperature for storage   | -40...85 °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 Weight             | 204.12 g |
| Package 1 Height             | 6.7 cm   |
| Package 1 width              | 9.5 cm   |
| Package 1 Length             | 13.3 cm  |

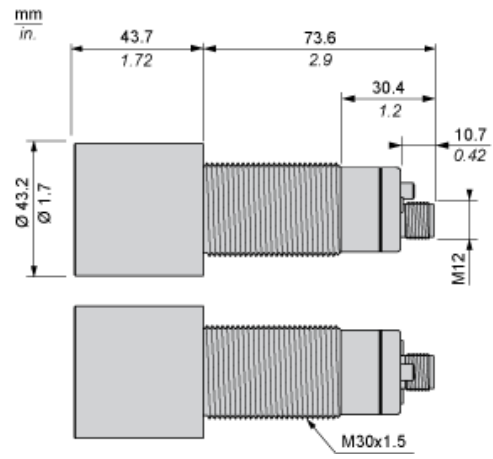
## Offer Sustainability

|                           |   |
|---------------------------|---|
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Contractual warranty

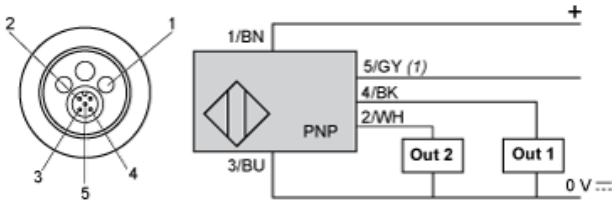
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Dimensions



Connections

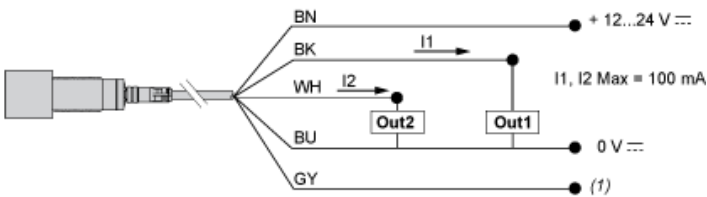
Connector Wiring



(1): Synchronization

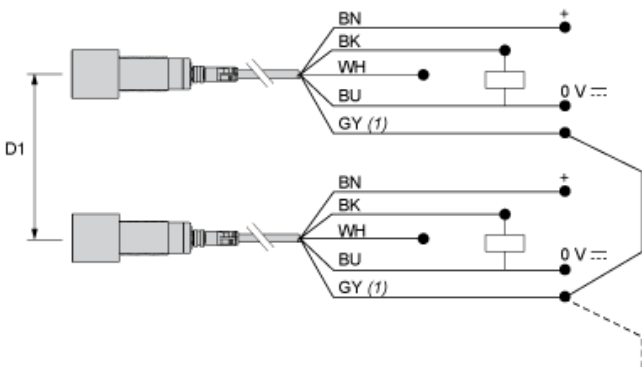
| Pin number | Wire color | Description     |
|------------|------------|-----------------|
| 1          | BN: Brown  | +12...24VDC     |
| 2          | WH: White  | Output 2        |
| 3          | BU: Blue   | 0 VDC           |
| 4          | BK: Black  | Output 1        |
| 5          | GY: Grey 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

Wiring Scheme. Digital Output (NO or NC)



(1): Synchronization

Wiring for the Synchronization Function (Side by Side Application)



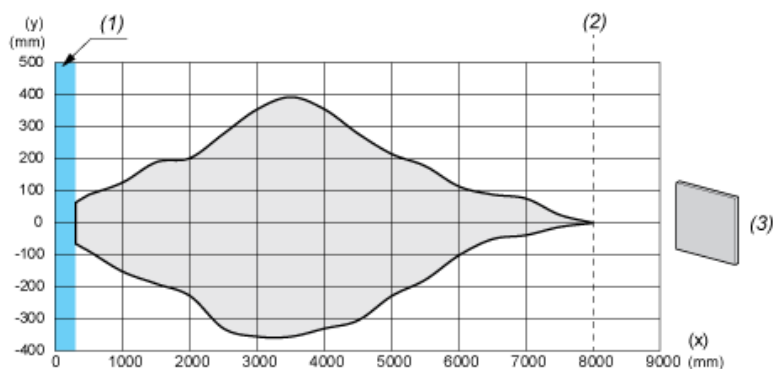
(1): Synchronization

- 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).

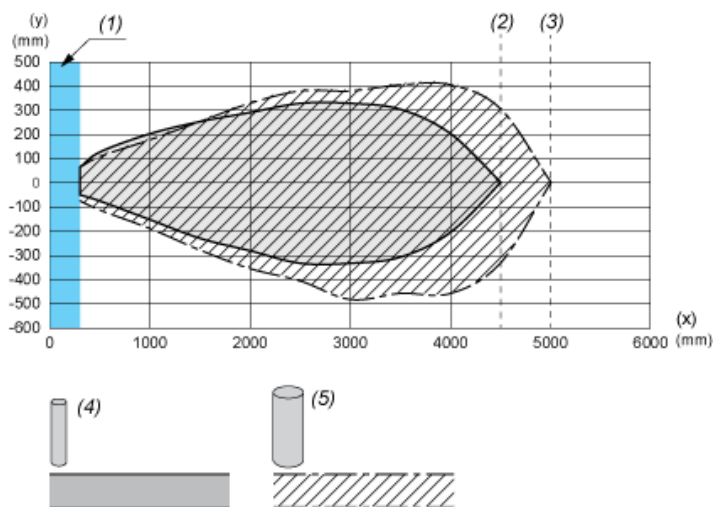
Performance Curves

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