

# XX930A2A1M12

Ultrasonic sensors XX, ultrasonic sensor cylindrical M30, Sn 2 m, 0...10 V, M12 connector



## Main

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Range of product              | Telemecanique Ultrasonic sensors XX           |
| Sensor type                   | Ultrasonic sensor                             |
| Series name                   | General purpose                               |
| Sensor name                   | XX9                                           |
| Sensor design                 | Cylindrical M30                               |
| Detection system              | Diffuse                                       |
| [Sn] nominal sensing distance | 2 m adjustable with teach push-button         |
| Material                      | Plastic                                       |
| Type of output signal         | Analogue                                      |
| Wiring technique              | 4-wire                                        |
| Analogue output function      | 0...10 V                                      |
| [Us] rated supply voltage     | 15...24 V DC with reverse polarity protection |
| Electrical connection         | Male connector M12 4 pins                     |
| [Sd] sensing range            | 0.12...2 m                                    |
| Beam angle                    | 10 °                                          |
| IP degree of protection       | IP67 conforming to IEC 60529                  |

## Complementary

|                                                   |                                                                                                        |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Enclosure material                                | ULTEM                                                                                                  |
| Front material                                    | Silicone                                                                                               |
| Thread type                                       | M30 x 1.5                                                                                              |
| Supply voltage limits                             | 14...28 V DC                                                                                           |
| Function available                                | Without synchronisation mode                                                                           |
| [Sa] assured operating distance                   | 0.12...2 m (teach mode)                                                                                |
| Blind zone                                        | 0...120 mm                                                                                             |
| Transmission frequency                            | 200 kHz                                                                                                |
| Repeat accuracy                                   | 0.9 %                                                                                                  |
| Deviation angle from 90° of object to be detected | -8...8 °                                                                                               |
| Minimum size of detected object                   | Cylinder diameter 1.6 mm at 0.635 m                                                                    |
| Status LED                                        | Setting-up assistance: 1 LED (dual colour)<br>Supply on: 1 LED (green)<br>Output state: 1 LED (yellow) |
| Current consumption                               | 80 mA                                                                                                  |
| Maximum switching capacity                        | >= 1 kOhm overload and short-circuit protection                                                        |
| Setting-up                                        | Slope selection using teach button                                                                     |
| Maximum delay first up                            | 720 ms                                                                                                 |
| Maximum delay response                            | 25 ms                                                                                                  |
| Maximum delay recovery                            | 25 ms                                                                                                  |
| Marking                                           | CE                                                                                                     |
| Threaded length                                   | 45 mm                                                                                                  |
| Height                                            | 35 mm                                                                                                  |
| Width                                             | 35 mm                                                                                                  |
| Depth                                             | 85 mm                                                                                                  |
| Net weight                                        | 0.095 kg                                                                                               |

## Environment

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| Standards                             | IEC 60947-5-2                                              |
| Product certifications                | UL[RETURN]cCSAus                                           |
| 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             | 4.1 cm |
| Package 1 Width              | 13 cm  |
| Package 1 Length             | 9.4 cm |
| Package 1 Weight             | 110 g  |

## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status                   | Green Premium product                                                                                                                                                                                                                                                                                                                                                             |
| 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> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>                                                                                                                                                                                                                                                                                                    |

## Contractual warranty

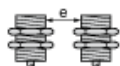
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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## Minimum Mounting Distances

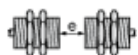
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### Side by side



e : respect the distances indicated on the detection curves

### Face to face



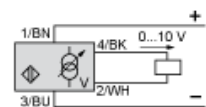
$e > 4 \times S_n$

## Wiring Diagram

### 4-Wire Type



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



BN Brown  
WH White  
BU Blue  
BK Black