

# XX6V3A1NAM12

Ultrasonic sensors XX, ultrasonic sensor  
cylindrical M30, Sn 1 m, NO, M12 connector



## Main

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Range of product              | Telemecanique Ultrasonic sensors XX           |
| Sensor type                   | Ultrasonic sensor                             |
| Series name                   | General purpose                               |
| Sensor name                   | XX6                                           |
| Sensor design                 | Cylindrical M30                               |
| Detection system              | Diffuse                                       |
| [Sn] nominal sensing distance | 1 m adjustable with remote teach push-button  |
| Material                      | Plastic                                       |
| Type of output signal         | Discrete                                      |
| Discrete output function      | 1 NO                                          |
| Wiring technique              | 3-wire                                        |
| Discrete output type          | NPN                                           |
| [Us] rated supply voltage     | 12...24 V DC with reverse polarity protection |
| Electrical connection         | Male connector M12 4 pins                     |
| [Sd] sensing range            | 0.1...1 m                                     |
| Beam angle                    | 7 °                                           |
| IP degree of protection       | IP67 conforming to IEC 60529                  |

## Complementary

|                                                   |                                                                                                        |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Enclosure material                                | Valox                                                                                                  |
| Front material                                    | Epoxy                                                                                                  |
| Thread type                                       | M30 x 1.5                                                                                              |
| Supply voltage limits                             | 10...28 V DC                                                                                           |
| [Sa] assured operating distance                   | 0.1...1 m (teach mode)                                                                                 |
| Maximum differential travel                       | 2.5 mm                                                                                                 |
| Blind zone                                        | 0...100 mm                                                                                             |
| Transmission frequency                            | 180 kHz                                                                                                |
| Repeat accuracy                                   | 0.9 %                                                                                                  |
| Deviation angle from 90° of object to be detected | -7...7 °                                                                                               |
| Minimum size of detected object                   | Cylinder diameter 50.8 mm at 1 m                                                                       |
| Status LED                                        | Setting-up assistance: 1 LED (dual colour)<br>Supply on: 1 LED (green)<br>Output state: 1 LED (yellow) |
| Current consumption                               | 60 mA                                                                                                  |
| Maximum switching current                         | 100 mA with overload and short-circuit protection                                                      |
| Maximum voltage drop                              | 1 V                                                                                                    |
| Switching frequency                               | <= 70 Hz                                                                                               |
| Maximum delay first up                            | 75 ms                                                                                                  |
| Maximum delay response                            | 15 ms                                                                                                  |
| Maximum delay recovery                            | 75 ms                                                                                                  |
| Marking                                           | CE                                                                                                     |
| Threaded length                                   | 37 mm                                                                                                  |
| Height                                            | 96 mm                                                                                                  |
| Width                                             | 30 mm                                                                                                  |
| Net weight                                        | 0.09 kg                                                                                                |

## Environment

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| Standards                             | IEC 60947-5-2                                              |
| Product certifications                | UL<br>CCSAus                                               |
| Ambient air temperature for operation | 0...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 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 Weight             | 125 g    |
| Package 1 Height             | 7.8 cm   |
| Package 1 width              | 7.8 cm   |
| Package 1 Length             | 15.5 cm  |
| Unit Type of Package 2       | S03      |
| Number of Units in Package 2 | 15       |
| Package 2 Weight             | 2.558 kg |
| Package 2 Height             | 30 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

|                            |                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                          |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                              |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                                                                            |
| RoHS exemption information | <a href="#">Yes</a>                                                                            |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                  |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                        |

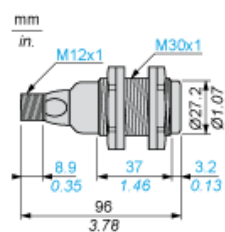
## Contractual warranty

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

---

Dimensions

---

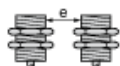


---

## Minimum Mounting Distances

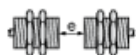
---

### Side by side



e :    respect the distances indicated on the detection curves

### Face to face

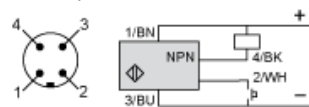


$e > 4 \times S_n$

## Wiring Diagram

### 3-Wire Type

NO outputs, NPN

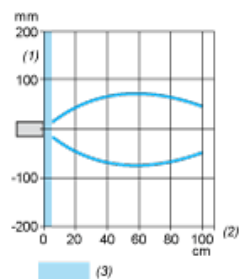


- (1) (+)
- (2) Teach input (WH)
- (3) (-)
- (4) Output
- BN Brown
- WH White
- BU Blue
- BK Black

---

## Curves

---



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