

Ultrasonic sensors XX, ultrasonic sensor, M18 metal, Sn 50 mm, NPN NO, cable 2 m



## Main

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Range of product              | Telemecanique Ultrasonic sensors XX           |
| Sensor type                   | Ultrasonic sensor                             |
| Series name                   | General purpose                               |
| Sensor name                   | XXV                                           |
| Sensor design                 | Cylindrical M18                               |
| Detection system              | Diffuse                                       |
| [Sn] nominal sensing distance | 0.05 m fixed                                  |
| Material                      | Metal                                         |
| 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         | Cable, 2 m cable length                       |
| [Sd] sensing range            | 0.003...0.05 m                                |
| Beam angle                    | 10 °                                          |
| IP degree of protection       | IP67 conforming to IEC 60529                  |

## Complementary

|                                                   |                                                   |
|---------------------------------------------------|---------------------------------------------------|
| Enclosure material                                | Brass                                             |
| Front material                                    | Epoxy                                             |
| Thread type                                       | M18 x 1                                           |
| Supply voltage limits                             | 10...36 V DC                                      |
| [Sa] assured operating distance                   | 0.003...0.05 m                                    |
| Maximum differential travel                       | 3 mm                                              |
| Blind zone                                        | 0...3 mm                                          |
| Transmission frequency                            | 360 kHz                                           |
| Repeat accuracy                                   | 1.5 %                                             |
| Deviation angle from 90° of object to be detected | -8...8 °                                          |
| Minimum size of detected object                   | Cylinder diameter 2 mm at 0.02 m                  |
| Status LED                                        | Output state: 1 LED (yellow)                      |
| Current consumption                               | 15 mA                                             |
| Maximum switching current                         | 200 mA with overload and short-circuit protection |
| Maximum voltage drop                              | 2 V                                               |
| Switching frequency                               | <= 80 Hz                                          |
| Maximum delay first up                            | 5 ms                                              |
| Maximum delay response                            | 4 ms                                              |
| Maximum delay recovery                            | 4 ms                                              |
| Marking                                           | CE                                                |
| Threaded length                                   | 51 mm                                             |
| Height                                            | 18 mm                                             |
| Width                                             | 18 mm                                             |
| Depth                                             | 65 mm                                             |
| Net weight                                        | 0.11 kg                                           |

## Environment

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| Standards                             | IEC 60947-5-2                                              |
| Product certifications                | cULus                                                      |
| Ambient air temperature for operation | 0...60 °C                                                  |
| Ambient air temperature for storage   | -40...80 °C                                                |
| Vibration resistance                  | +/- 2 mm conforming to IEC 60068-2-6 (f = 10...55 Hz)      |
| Shock resistance                      | 50 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              | 9.5 cm    |
| Package 1 Length             | 13.0 cm   |
| Package 1 Weight             | 126.008 g |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 44        |
| Package 2 Height             | 30.0 cm   |
| Package 2 Width              | 30.0 cm   |
| Package 2 Length             | 40.0 cm   |
| Package 2 Weight             | 6.257 kg  |

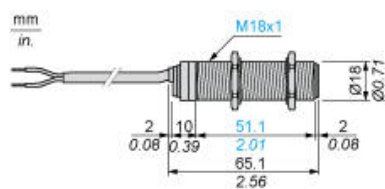
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|----------|-----------|

## Dimensions



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### Minimum Mounting Distances

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e(1) 25 mm

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e(2) 700 mm

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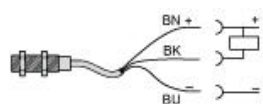
e(3) 60 mm

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## Wiring Diagram

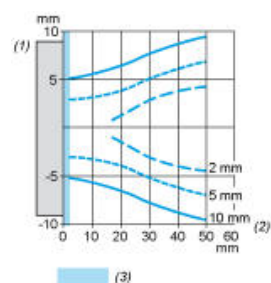
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BN Brown  
BU Blue  
BK Black

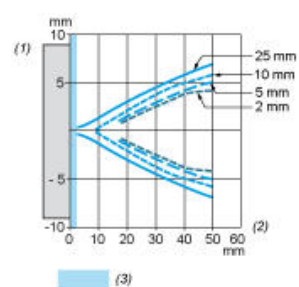
## Curves

### Square Object



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

### Cylindrical Object



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