

# Product datasheet

Specifications



## inductive sensor XS5 M12 - L50mm - brass - Sn2mm - 12..24VDC - M12

XS512B1PBM12

### Main

|                                    |   |
|------------------------------------|---|
| Range of product                   | Telemecanique Inductive proximity sensors XS                  |
| Series name                        | General purpose   |
| Sensor type                        | Inductive proximity sensor                                    |
| Device application                 | -   |
| Sensor name                        | XS5   |
| Sensor design                      | Cylindrical M12   |
| Size                               | 50 mm   |
| Body type                          | Fixed   |
| Detector flush mounting acceptance | Flush mountable   |
| Material                           | Metal   |
| Type of output signal              | Discrete  |
| Wiring technique                   | 3-wire  |
| [Sn] nominal sensing distance      | 2 mm  |
| Discrete output function           | 1 NC  |
| Output circuit type                | DC  |
| Discrete output type               | PNP   |
| Electrical connection              | 4 pins M12 male connector                                     |
| [Us] rated supply voltage          | 12...24 V DC with reverse polarity protection                 |
| Switching capacity in mA           | <= 200 mA DC with overload and short-circuit protection       |
| IP degree of protection            | IP67 conforming to IEC 60529<br>IP69K conforming to DIN 40050 |

### Complementary

|                     |                     |
|---------------------|---------------------|
| Thread type         | M12 x 1             |
| Detection face      | Frontal             |
| Front material      | PPS                 |
| Enclosure material  | Nickel plated brass |
| Operating zone      | 0...1.6 mm          |
| Differential travel | 1...15% of Sr       |

|                        |                              |
|------------------------|------------------------------|
| Status LED             | Output state: 1 LED (yellow) |
| Supply voltage limits  | 10...36 V DC                 |
| Switching frequency    | <= 5000 Hz                   |
| Maximum voltage drop   | <2 V (closed)                |
| Current consumption    | <= 10 mA no-load             |
| Maximum delay first up | 10 ms                        |
| Maximum delay response | 0.1 ms                       |
| Maximum delay recovery | 0.1 ms                       |
| Marking                | CE                           |
| Threaded length        | 30 mm                        |
| Length                 | 50 mm                        |
| Net weight             | 0.035 kg                     |

## Environment

|                                       |   |
|---------------------------------------|---|
| Product certifications                | CSA<br>UL   |
| Ambient air temperature for operation | -25...70 °C   |
| Ambient air temperature for storage   | -40...85 °C   |
| Vibration resistance                  | 25 gn amplitude = +/- 2 mm (f = 10...55 Hz) conforming to IEC 60068-2-6 |
| Shock resistance                      | 50 gn for 11 ms conforming to IEC 60068-2-27                            |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 27.0 g   |
| Package 1 Height             | 4.2 cm   |
| Package 1 width              | 9.6 cm   |
| Package 1 Length             | 6.5 cm   |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 44       |
| Package 2 Weight             | 1.505 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

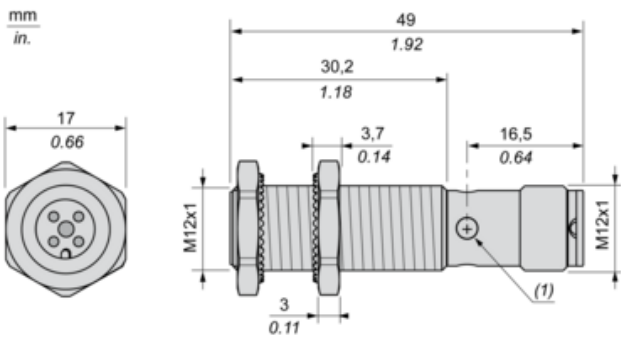
## Offer Sustainability

|                            |   |
|----------------------------|---|
| 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)<br><a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |

## Contractual warranty

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

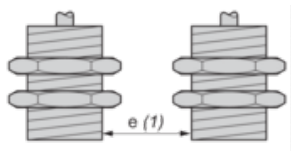
Dimensions



(1) : LED

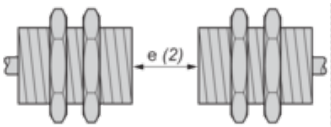
Minimum Mounting Distances

Side by side



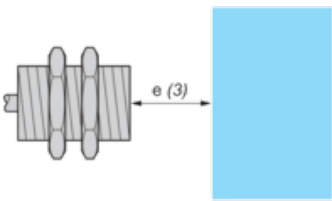
$e (1) \geq 4 \text{ mm}/0.16 \text{ in.}$

Face to face



$e (2) \geq 24 \text{ mm}/0.94 \text{ in.}$

Facing a metal object



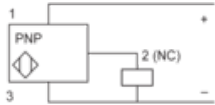
$e (3) \geq 6 \text{ mm}/0.24 \text{ in.}$

Wiring Schemes

M12 connector



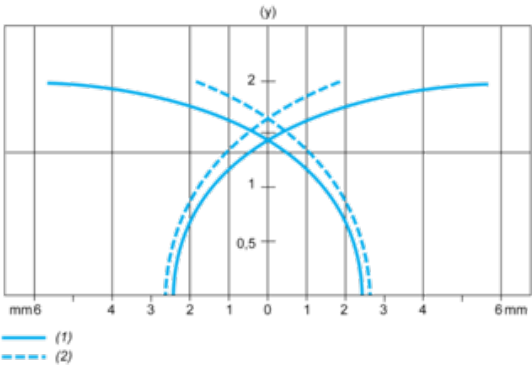
PNP



- 1 : (+)
- 2 : NC Output
- 3 : (-)
- 4 : Not connected

Performance Curves

Standard Steel Target : 12x12x1 mm



- (1) Pick-up points
- (2) Drop-out points (object approaching from the side)
- (y) Sensing distance in mm