



## Main

|                                    |  |
|------------------------------------|--|
| Range of product                   | OsiSense XS  |
| Series name                        | General purpose                                      |
| Sensor type                        | Inductive proximity sensor                           |
| Device application                 | Mobile equipment                                     |
| Sensor name                        | XS1  |
| Sensor design                      | Cylindrical M12                                      |
| Size                               | 37 mm  |
| Body type                          | Fixed  |
| Detector flush mounting acceptance | Flush mountable                                      |
| Material                           | Metal  |
| Type of output signal              | Discrete   |
| Wiring technique                   | 4-wire   |
| [Sn] nominal sensing distance      | 2 mm   |
| Discrete output function           | 1 NO + 1 NC  |
| Output circuit type                | DC   |
| Discrete output type               | PNP  |
| Electrical connection              | Cable  |
| Cable length                       | 5 m  |
| [Us] rated supply voltage          | 12...24 V DC with reverse polarity protection        |
| Switching capacity in mA           | <= 200 mA with overload and short-circuit protection |
| IP degree of protection            | IP68 conforming to IEC 60529<br>IP65                 |

## Complementary

|                          |  |
|--------------------------|--|
| Safety level             | SIL 2 conforming to EN/IEC 61508<br>PL = d conforming to EN/ISO 13849-1<br>SILCL 2 conforming to IEC 62061 |
| Safety reliability data  | MTTFd = 1810 years<br>PFHd = 62.9E-9 1/h<br>SFF = 92 %<br>DC = 74 % with appropriate safety controller     |
| Service life             | 20 year(s)   |
| 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  |
| Cable composition        | 4 x 0.22 mm <sup>2</sup>   |
| Wire insulation material | PvR  |
| Status LED               | Output state: 1 LED (yellow)   |
| Supply voltage limits    | 9...36 V DC  |
| Switching frequency      | <= 5000 Hz   |
| Maximum voltage drop     | <2 V (closed)  |
| Current consumption      | 0...10 mA no-load  |

|                        |                    |
|------------------------|--------------------|
| Maximum delay first up | 5 ms               |
| Maximum delay response | 0.1 ms             |
| Maximum delay recovery | 0.1 ms             |
| Marking                | CE                 |
| Threaded length        | 25 mm              |
| Height                 | 12 mm              |
| Length                 | 37 mm              |
| Net weight             | 0.16 Kg<br>0.07 kg |

## Environment

|                                       |   |
|---------------------------------------|---|
| Standards                             | EN/ISO 13849-1<br>IEC 62061   |
| Product certifications                | UL<br>E2<br>TÜV<br>CSA  |
| 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                            |

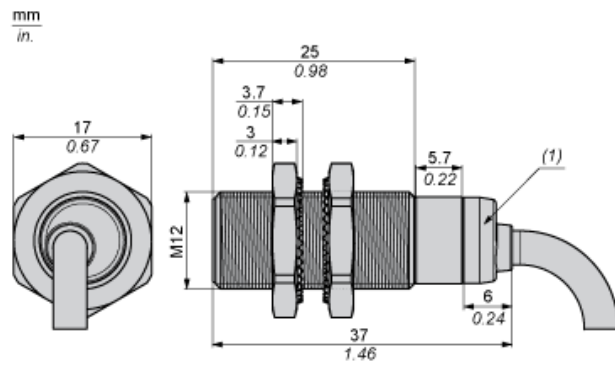
## Offer Sustainability

|                            |  |
|----------------------------|--|
| Sustainable offer status   | Green Premium product  |
| 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



(1) LED

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Minimum Mounting Distances

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Side by side



e (1) 4 mm/0.16 in.

≥

Face to face



e (2) 24 mm/0.94 in.

≥

Facing a metal object



e (3) 6 mm/0.24 in.

≥

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Wiring Schemes

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PNP 4-wire



BU : Blue  
BN : Brown  
BK : Black  
WH : White

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