

# XS1N18PC410TF

inductive sensor XS1 M18 - L37mm - brass -  
Sn5mm - 12..24VDC - cable 2m



## 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 M18                                      |
| Size                               | 40 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      | 5 mm                                                 |
| Discrete output function           | 1 NO + 1 NC                                          |
| Output circuit type                | DC                                                   |
| Discrete output type               | PNP                                                  |
| Electrical connection              | Cable                                                |
| Cable length                       | 2 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              | M18 x 1                                                                                                    |
| Detection face           | Frontal                                                                                                    |
| Front material           | PPS                                                                                                        |
| Enclosure material       | Nickel plated brass                                                                                        |
| Operating zone           | 0...4 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      | <= 2000 Hz                                                                                                 |
| Maximum voltage drop     | <2 V (closed)                                                                                              |
| Current consumption      | 0...10 mA no-load                                                                                          |

|                        |         |
|------------------------|---------|
| Maximum delay first up | 5 ms    |
| Maximum delay response | 0.15 ms |
| Maximum delay recovery | 0.35 ms |
| Marking                | CE      |
| Threaded length        | 28 mm   |
| Length                 | 40 mm   |

## Environment

|                                       |                                                                         |
|---------------------------------------|-------------------------------------------------------------------------|
| Standards                             | EN/ISO 13849-1<br>IEC 62061                                             |
| Product certifications                | UL<br>CSA<br>TÜV<br>E2                                                  |
| Ambient air temperature for operation | -40...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

|                  |          |
|------------------|----------|
| Package 1 Weight | 0.100 kg |
| Package 1 Height | 0.660 dm |
| Package 1 width  | 0.950 dm |
| Package 1 Length | 1.320 dm |

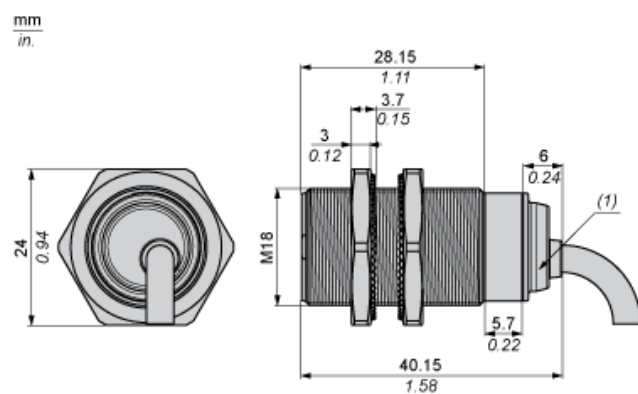
## Offer Sustainability

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



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### Minimum Mounting Distances

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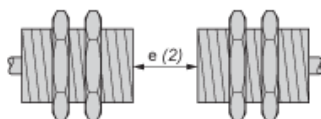
Side by side



e (1) 10 mm/0.39 in.

≥

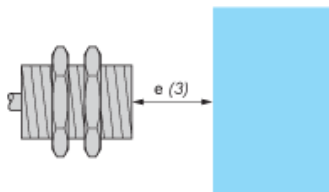
Face to face



e (2) 60 mm/2.36 in.

≥

Facing a metal object

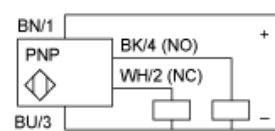


e (3) 15 mm/0.60 in

≥

## Wiring Schemes

### PNP 4-wire



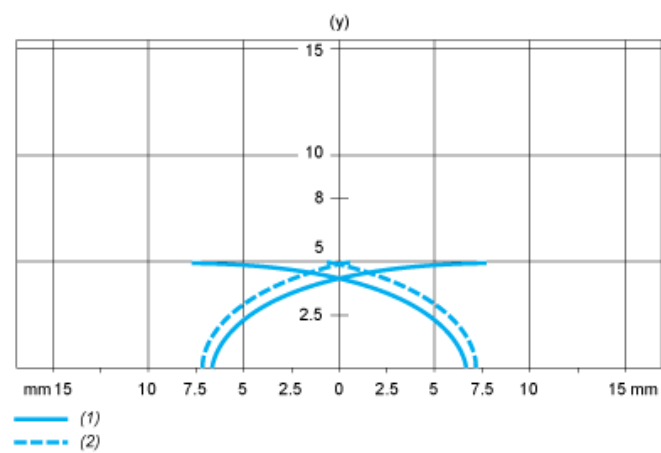
BU : Blue  
BN : Brown  
BK : Black  
WH : White

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Performance Curves

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Standard Steel Target : 18x18x1 mm



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