

# Product data sheet

## Characteristics

# XXV18B1PBL2

Ultrasonic sensor - M18 metal - Sn 50mm - PNP  
NC - cable 2m



### Main

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Range of product              | OsiSense 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 NC                                          |
| Wiring technique              | 3-wire                                        |
| Discrete output type          | PNP                                           |
| [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 |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                           |                                                   |
|---------------------------|---------------------------------------------------|
| Status LED                | 1 LED (yellow) for output state                   |
| Current consumption       | 15 mA                                             |
| Maximum switching current | 200 mA with overload and short-circuit protection |
| Voltage drop              | < 2 V                                             |
| Switching frequency       | <= 80 Hz                                          |
| Delay first up            | 5 ms                                              |
| Delay response            | 4 ms                                              |
| Delay recovery            | 4 ms                                              |
| Marking                   | CE                                                |
| Threaded length           | 51 mm                                             |
| Height                    | 18 mm                                             |
| Width                     | 18 mm                                             |
| Depth                     | 65 mm                                             |
| Product 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 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                   |

## Offer Sustainability

|                        |                                                |
|------------------------|------------------------------------------------|
| RoHS (date code: YYWW) | Will not be compliant<br>Will not be compliant |
|------------------------|------------------------------------------------|

## Contractual warranty

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