



## Main

|                               |  |
|-------------------------------|--|
| Range of product              | OsiSense XU                              |
| Series name                   | General purpose single mode              |
| Electronic sensor type        | Photo-electric sensor                    |
| Sensor name                   | XUX                                      |
| Sensor design                 | Compact 92 x 71                          |
| Detection system              | Diffuse with background suppression      |
| Material                      | Plastic                                  |
| Type of output signal         | Discrete                                 |
| Supply circuit type           | DC                                       |
| Wiring technique              | 3-wire                                   |
| Discrete output type          | PNP or NPN                               |
| Discrete output function      | 1 NO or 1 NC programmable                |
| Electrical connection         | 1 male connector M12, 4 pins             |
| Product specific application  | Long sensing distance with high accuracy |
| Emission                      | Infrared                                 |
| [Sn] nominal sensing distance | 2 m                                      |

## Buy online

## Complementary

|                           |   |
|---------------------------|---|
| Enclosure material        | PC  |
| Lens material             | PMMA  |
| Output type               | Solid state   |
| Status LED                | 1 LED (green) for supply on<br>1 LED (red) for instability<br>1 LED (yellow) for output state |
| [Us] rated supply voltage | 12...24 V DC with reverse polarity protection   |
| Supply voltage limits     | 10...36 V DC  |
| Switching capacity in mA  | <= 100 mA (overload and short-circuit protection)   |
| Switching frequency       | 150 Hz  |
| Voltage drop              | <= 1.5 V (closed state)   |
| Current consumption       | 35 mA (no-load)   |
| Delay first up            | < 200 ms  |
| Delay response            | < 3.5 ms  |
| Delay recovery            | < 2.5 ms  |
| Product weight            | 0.2 kg  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Product certifications                | CE<br>CSA<br>UL  |
| Ambient air temperature for operation | -25...55 °C  |
| Ambient air temperature for storage   | -40...70 °C  |
| Vibration resistance                  | 7 gn (f = 10...55 Hz) conforming to IEC 60068-2-6  |
| Shock resistance                      | 10 gn (duration = 11 ms) conforming to IEC 60068-2-27  |
| IP degree of protection               | IP30 (with cover open) conforming to IEC 60529<br>IP65 (double insulation) conforming to IEC 60529<br>IP67 (double insulation) conforming to IEC 60529 |

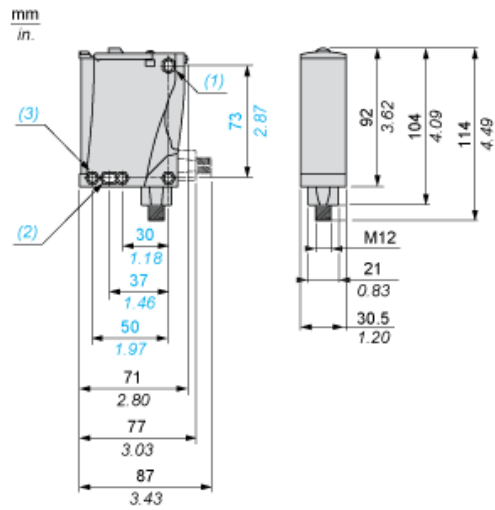
## Offer Sustainability

|                          |  |
|--------------------------|--|
| Sustainable offer status | Green Premium product  |
| RoHS (date code: YYWW)   | Compliant - since 1136 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                    | Reference not containing SVHC above the threshold  |

## Contractual warranty

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

## Dimensions



- (1) Elongated hole  $\varnothing$  5.5 x 7
- (2) Elongated hole  $\varnothing$  5.5 x 9
- (3)  $\varnothing$  5.5 hole

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## Mounting and Clearance

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### Possible Orientation of Elbowed Connector (Rear View)



Wiring Schemes

M12 Connector



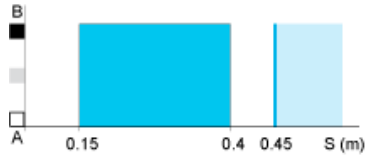
PNP/NPN DC

| M12 |   | Terminals |   |                |
|-----|---|-----------|---|----------------|
| 1   | ● | 1         | ⊘ | +              |
| 3   | ● | 2         | ⊘ | -              |
| 4   | ● | 3         | ⊘ | Output         |
| 2   | ● | 4         | ⊘ | Alarm inactive |

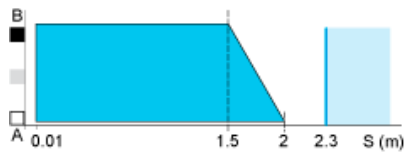
Detection Curves

Variation of Usable Sensing Distance  $S_u$

Teach Mode at Minimum



Teach Mode at Maximum

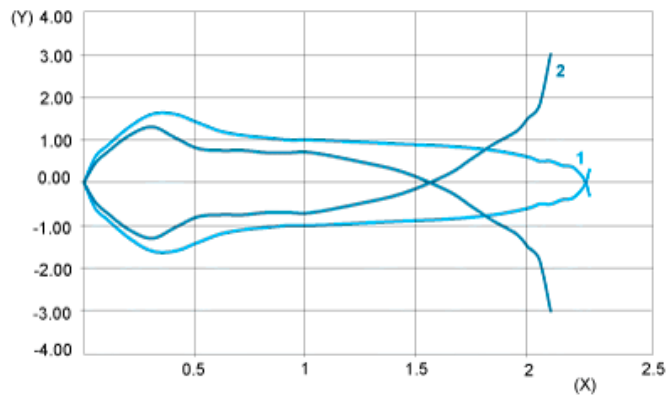


- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

A-B : Object reflection coefficient

- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

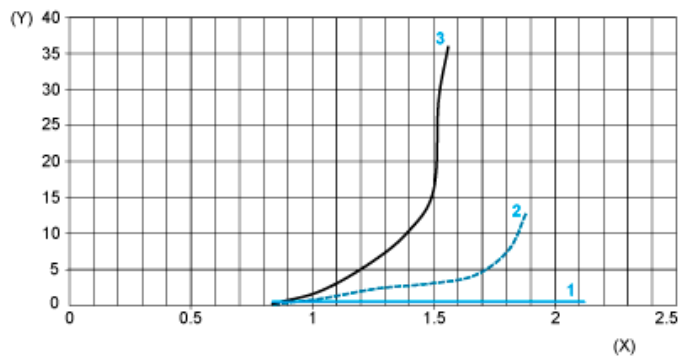
Detection Curves



- 1 : White 90%
- 2 : Grey 18%
- (Y) Detection lobe (cm)
- (X) Object distance (m)

Object 10 x 10 cm

## Relative Difference in Sensing Distances According to Object Colour



- 1 : White 90%
  - 2 : Grey 18%
  - 3 : Black 6%
  - (Y) Relative error (%)
  - (X) Object distance (m)
- Object 10 x 10 cm