

# XUX5APBNM12

Photoelectric sensors XU, XUX, diffuse, Sn 2.1 m, 12...24 VDC, M12



## Main

|                               |                                        |
|-------------------------------|----------------------------------------|
| Range of product              | Telemecanique Photoelectric sensors 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                                |
| Material                      | Plastic                                |
| Type of output signal         | Discrete                               |
| Supply circuit type           | DC                                     |
| Wiring technique              | 3-wire                                 |
| Discrete output type          | PNP                                    |
| Discrete output function      | 1 NC                                   |
| Electrical connection         | 1 male connector M12, 4 pins           |
| Product specific application  | -                                      |
| Emission                      | Infrared diffuse                       |
| [Sn] nominal sensing distance | 2.1 m diffuse                          |

## Complementary

|                                |                                                                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enclosure material             | PBT                                                                                                                                                                              |
| Lens material                  | PMMA                                                                                                                                                                             |
| Maximum sensing distance       | 3 m diffuse                                                                                                                                                                      |
| Output type                    | Relay                                                                                                                                                                            |
| Cable entry                    | 1 entry for M16 x 1.5 cable gland, cable outer diameter: 7...10 mm                                                                                                               |
| Status LED                     | 1 LED (yellow) for output state<br>1 LED (green) for supply                                                                                                                      |
| [Us] rated supply voltage      | 24...240 V AC/DC                                                                                                                                                                 |
| Switching capacity in mA       | 3 A (cos $\phi$ = 1 for 0.5 million cycles at 1 operating cycle per second at 250 V)<br>0.5 A (cos $\phi$ = 0.4 for 0.5 million cycles at 1 operating cycle per second at 250 V) |
| Switching frequency            | $\leq$ 20 Hz                                                                                                                                                                     |
| Maximum voltage drop           | $<1.5$ V (closed state)                                                                                                                                                          |
| Current consumption            | $\leq$ 35 mA no-load                                                                                                                                                             |
| Maximum power consumption in W | 2 W AC/DC                                                                                                                                                                        |
| Maximum delay first up         | 60 ms                                                                                                                                                                            |
| Maximum delay response         | 25 ms                                                                                                                                                                            |
| Maximum delay recovery         | 25 ms                                                                                                                                                                            |
| Setting-up                     | Sensitivity adjustment                                                                                                                                                           |
| Electrical durability          | 500000 Cycles, cos $f$ = 1, operating rate $<60$ cyc/mn at 250 V<br>500000 cycles, cos $f$ = 0.4, operating rate $<60$ cyc/mn at 250 V                                           |
| Depth                          | 77 mm                                                                                                                                                                            |
| Height                         | 92 mm                                                                                                                                                                            |
| Width                          | 31 mm                                                                                                                                                                            |
| Net weight                     | 0.2 kg                                                                                                                                                                           |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither TWSS Holding nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Environment

|                                       |                                                                                                  |
|---------------------------------------|--------------------------------------------------------------------------------------------------|
| Product certifications                | CSA[RETURN]UL[RETURN]CE                                                                          |
| Ambient air temperature for operation | -25...55 °C                                                                                      |
| Ambient air temperature for storage   | -40...70 °C                                                                                      |
| Vibration resistance                  | 7 gn, amplitude = +/- 1.5 mm (f = 10...55 Hz) conforming to IEC 60068-2-6                        |
| Shock resistance                      | 30 gn (duration = 11 ms) conforming to IEC 60068-2-27                                            |
| IP degree of protection               | IP67 double insulation conforming to IEC 60529<br>IP65 double insulation conforming to IEC 60529 |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 4.2 cm   |
| Package 1 Width              | 9.2 cm   |
| Package 1 Length             | 13.1 cm  |
| Package 1 Weight             | 186 g    |
| Unit Type of Package 2       | S01      |
| Number of Units in Package 2 | 5        |
| Package 2 Height             | 15 cm    |
| Package 2 Width              | 15 cm    |
| Package 2 Length             | 40 cm    |
| Package 2 Weight             | 1.155 kg |

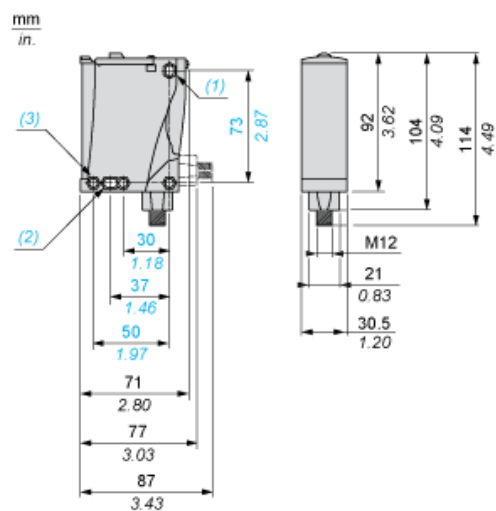
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status                   | Green Premium product                                                                                                                                                                                                                                                                                                                                                            |
| California proposition 65                  | WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Diisodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>                                                                                                                                                                                                                                                                                                   |

## Contractual warranty

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

## Dimensions



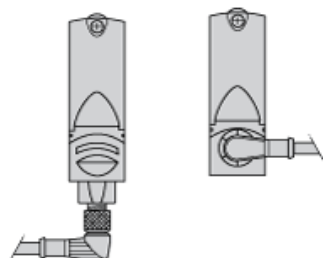
- (1) Elongated hole  $\varnothing 5.5 \times 7$
- (2) Elongated hole  $\varnothing 5.5 \times 9$
- (3)  $\varnothing 5.5$  hole

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## Mounting and Clearance

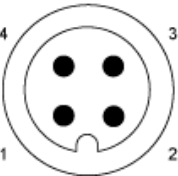
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### Possible Orientation of Elbowed Connector (Rear View)



Wiring Schemes

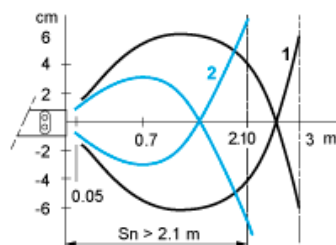
M12 Connector



PNP/NPN DC

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

## Detection Curves



1 : White 90%

2 : Grey 18%

Object 10 x 10 cm