

XUX0AKSAM12

Photoelectric sensors XU, XUX, multi, Sn 0...40 m, 12...24 VDC, M12



Main

| | |
|-------------------------------|---|
| Range of product | Telemecanique Photoelectric sensors XU |
| Series name | General purpose multimode |
| Electronic sensor type | Photo-electric sensor |
| Sensor name | XUX |
| Sensor design | Compact 92 x 71 |
| Detection system | Multimode |
| Material | Plastic |
| Type of output signal | Discrete |
| Supply circuit type | DC |
| Wiring technique | 3-wire |
| Discrete output function | 1 NO or 1 NC programmable |
| Electrical connection | 1 male connector M12, 4 pins |
| Product specific application | - |
| Emission | Infrared diffuse Infrared diffuse with background suppression Infrared thru beam Red polarised reflex |
| [Sn] nominal sensing distance | 11 M polarised reflex need reflector XUZC50 40 M thru beam need a transmitter XUX0AKSAM12T 2 M diffuse 1.3 m diffuse with background suppression |

Complementary

| | |
|---------------------------|---|
| Enclosure material | PBT |
| Lens material | PMMA |
| Maximum sensing distance | 15 M polarised reflex 3 M diffuse 60 M thru beam 1.3 m diffuse with background suppression |
| Output type | Solid state |
| Add on output | With alarm output, <= 100 mA with overload and short-circuit protection |
| Status LED | 1 LED (green) for supply 1 LED (red) for instability 1 LED (yellow) for output state |
| [Us] rated supply voltage | 12...24 V DC with reverse polarity protection |
| Switching capacity in mA | <= 100 mA (overload and short-circuit protection) |
| Switching frequency | <= 250 Hz |
| Maximum voltage drop | <1.5 V (closed state) |
| Current consumption | <= 35 mA no-load |
| Maximum delay first up | 200 ms |
| Maximum delay response | 2 ms |
| Maximum delay recovery | 2 ms |
| Setting-up | Self-teaching |
| 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 | UL[RETURN]CSA[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 | IP65 double insulation conforming to IEC 60529 IP67 double insulation conforming to IEC 60529 |

Packing Units

| | |
|------------------------------|-----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 4.200 cm |
| Package 1 Width | 9.500 cm |
| Package 1 Length | 13.000 cm |
| Package 1 Weight | 199.000 g |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 22 |
| Package 2 Height | 15 cm |
| Package 2 Width | 30 cm |
| Package 2 Length | 40 cm |
| Package 2 Weight | 4.687 kg |

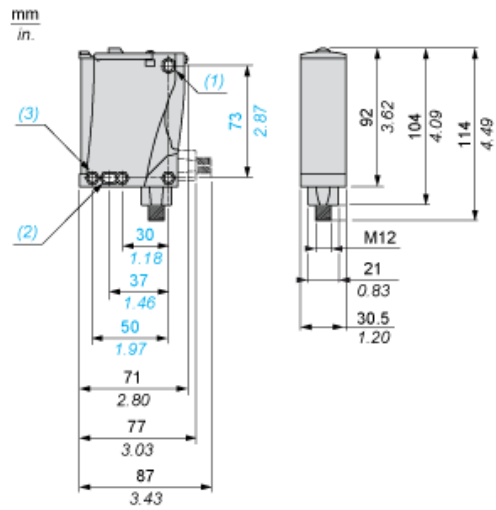
Offer Sustainability

| | |
|--|---|
| 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 Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| For all Reach Rohs enquiries contact us at | sustainability@tesensors.com |

Contractual warranty

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

Dimensions



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

Mounting and Clearance

Possible Orientation of Elbowed Connector (Rear View)



Wiring Schemes

M12 Connector

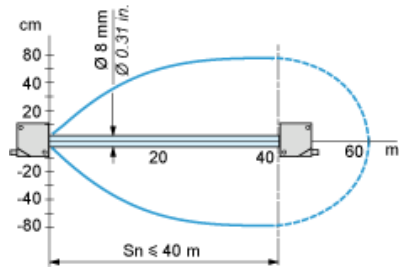


PNP/NPN DC

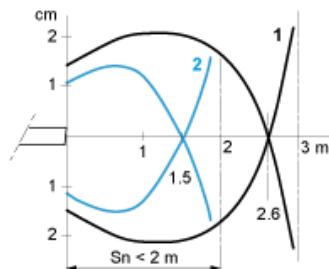
| M12 | | Terminals | | |
|-----|---|-----------|---|----------------|
| 1 | ● | 1 | ⊘ | + |
| 3 | ● | 2 | ⊘ | - |
| 4 | ● | 3 | ⊘ | Output |
| 2 | ● | 4 | ⊘ | Alarm inactive |

Detection Curves

With Thru-beam Accessory (Thru-beam)

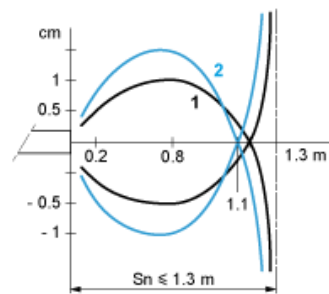


Without Accessory (Diffuse)



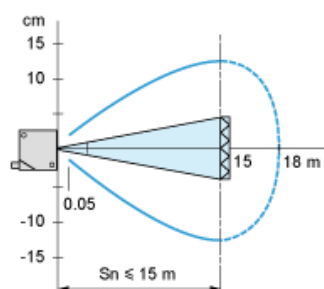
1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)



1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

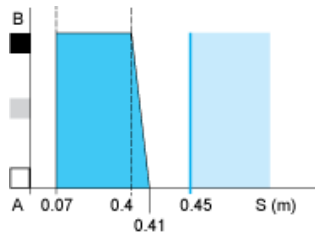
With reflector (Polarised reflex)



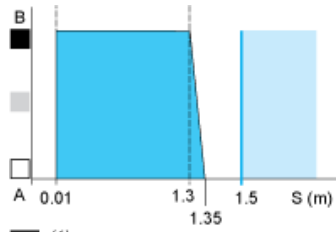
With reflector XUZC50

Variation of Usable Sensing Distance S_u (Without accessory, with adjustable background suppression)

Teach Mode at Minimum



Teach Mode at Maximum



- (1) Black
- (2) Grey
- (3) White
- (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)