

Product data sheet

Characteristics

XUK0AKSAM12

Photoelectric sensors XU, XUK, multi, Sn 0...30 m, 12...24 VDC, M12



Product availability: Stock - Normally stocked in distribution facility

Price*: 111.00 USD



Main

| | |
|-------------------------------|---|
| Range of Product | Telemecanique Photoelectric sensors XU |
| Series name | General purpose multimode |
| Electronic sensor type | Photo-electric sensor |
| Sensor name | XUK |
| Sensor design | Compact 50 x 50 |
| Detection system | Multimode |
| 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 | - |
| Emission | Infrared diffuse Infrared diffuse with background suppression Infrared thru beam Red polarised reflex |
| [Sn] nominal sensing distance | 13.12 Ft (4 m) polarised reflex need reflector XUZC50 98.43 Ft (30 m) thru beam need a transmitter XUK0AKSAM12T 0.92 Ft (0.28 m) diffuse with background suppression 2.62 Ft (0.8 m) diffuse |

Complementary

| | |
|--------------------------|--|
| Enclosure Material | PBT |
| Lens material | PMMA |
| Maximum sensing distance | 114.83 Ft (35 m) thru beam 0.92 Ft (0.28 m) diffuse with background suppression 3.94 Ft (1.2 m) diffuse 18.70 Ft (5.7 m) polarised reflex |
| Output Type | Solid state |
| Add on output | With alarm output, <= 50 mA overload and short-circuit protection |

| | |
|---------------------------|--|
| Status LED | 1 LED green)supply 1 LED red)instability 1 LED yellow)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 | <= 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 |
| Maximum Depth | 1.97 In (50 mm) |
| Maximum Height | 1.97 In (50 mm) |
| Maximum Width | 0.71 In (18 mm) |
| Net Weight | 0.20 Lb(US) (0.09 kg) |

Environment

| | |
|---------------------------------------|---|
| Product Certifications | CE CSA UL |
| Ambient Air Temperature for Operation | -13...131 °F (-25...55 °C) |
| Ambient Air Temperature for Storage | -40...158 °F (-40...70 °C) |
| Vibration resistance | 7 gn +/- 1.5 mm 10...55 Hz) IEC 60068-2-6 |
| Shock resistance | 30 gn 11 ms) IEC 60068-2-27 |
| IP degree of protection | IP65 double insulation IEC 60529 |

Ordering and shipping details

| | |
|-----------------------|--------------------------------|
| Category | 22481 - SENSORS, PHOTOELECTRIC |
| Discount Schedule | DS2 |
| GTIN | 03389110160406 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 2.43 Oz (69 g) |
| Returnability | Yes |
| Country of origin | ID |

Packing Units

| | |
|------------------------------|------------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 1.97 In (5 cm) |
| Package 1 width | 2.76 In (7 cm) |
| Package 1 Length | 3.94 In (10 cm) |
| Unit Type of Package 2 | S01 |
| Number of Units in Package 2 | 22 |
| Package 2 Weight | 4.05 Lb(US) (1.836 kg) |
| Package 2 Height | 5.91 In (15 cm) |
| Package 2 width | 5.91 In (15 cm) |
| Package 2 Length | 15.75 In (40 cm) |

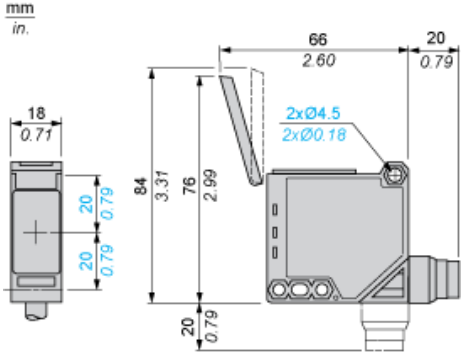
Offer Sustainability

| | |
|----------------------------|--|
| 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 www.P65Warnings.ca.gov |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |

Contractual warranty

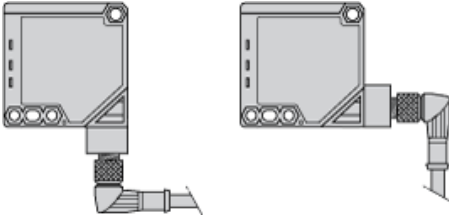
| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Dimensions



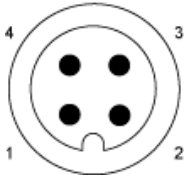
Mounting and Clearance

Possible Orientation of Elbowed Connector



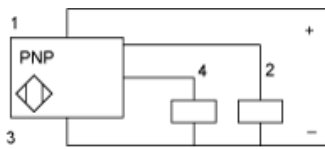
Wiring Schemes

M12 Connector

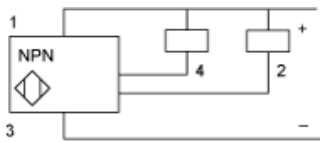


- 1: (+)
- 2: Alarm input
- 3: (-)
- 4: OUT/Output

PNP Output

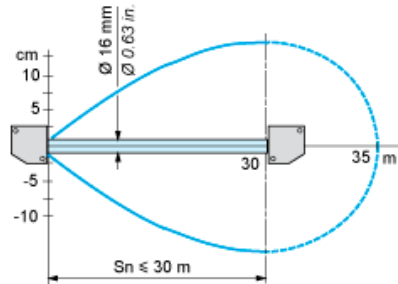


NPN Output

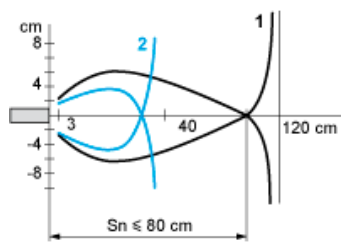


Detection Curves

With Thru-beam Accessory (Thru-beam)

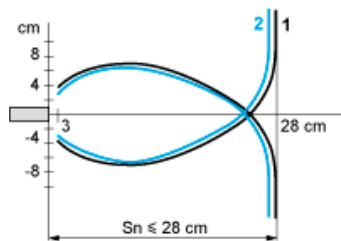


Without Accessory (Diffuse)



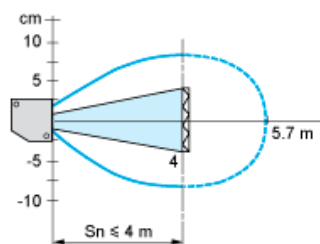
1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)



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

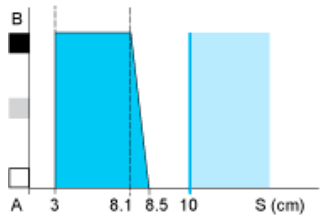
With reflector (Polarised reflex)



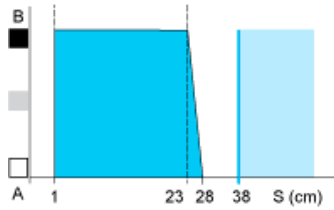
With reflector XUZC50

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)

Product Life Status : **Commercialised**