

XUK0ARCTL10

Photoelectric sensors XU, XUK, multi, Sn 0...30 m, 24...240VAC/DC, cable 10 m



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 | AC/DC |
| Wiring technique | 5-wire |
| Discrete output function | 1 NO or 1 NC programmable |
| Electrical connection | Cable |
| Cable length | 10 m |
| Product specific application | - |
| Emission | Infrared diffuse Infrared diffuse with background suppression Infrared thru beam Red polarised reflex |
| [Sn] nominal sensing distance | 4 M polarised reflex need reflector XUZC50 30 M thru beam need a transmitter XUK0ARCTL10T 0.28 M diffuse with background suppression 0.8 m diffuse |

Complementary

| | |
|--------------------------------|---|
| Enclosure material | PBT |
| Lens material | PMMA |
| Maximum sensing distance | 35 M thru beam 0.28 M diffuse with background suppression 1.2 M diffuse 5.7 m polarised reflex |
| Output type | Relay |
| Add on output | Without, <= 50 mA with overload and short-circuit protection |
| Wire insulation material | PvR |
| Status LED | 1 LED (green) for supply 1 LED (red) for instability 1 LED (yellow) for output state |
| [Us] rated supply voltage | 24...240 V AC 24...240 V DC |
| Supply voltage limits | 20...264 V AC 20...264 V DC |
| Switching capacity in mA | 3 A (cos ϕ = 1 for 0.5 million cycles at 1 operating cycle per second at 250 V) |
| Switching frequency | <= 20 Hz |
| Maximum voltage drop | <1.5 V (closed state) |
| Maximum power consumption in W | 3 W AC/DC |
| Time delay range | 0...10 s monostable, on-delay or off-delay (programmable) delay |
| Maximum delay first up | 300 ms |
| Maximum delay response | 25 ms |
| Maximum delay recovery | 25 ms |
| Setting-up | Self-teaching |

| | |
|-----------------------|--|
| Electrical durability | 500000 cycles, cos f = 1, operating rate <60 cyc/mn at 250 V |
| Depth | 50 mm |
| Height | 50 mm |
| Width | 18 mm |



Environment

| | |
|---------------------------------------|---|
| Product certifications | CE[RETURN]CSA[RETURN]UL |
| 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 |

Packing Units

| | |
|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 6.0 cm |
| Package 1 Width | 13.0 cm |
| Package 1 Length | 13.5 cm |
| Package 1 Weight | 550.0 g |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 12 |
| Package 2 Height | 15 cm |
| Package 2 Width | 30 cm |
| Package 2 Length | 40 cm |
| Package 2 Weight | 7.074 kg |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 192 |
| Package 3 Height | 75 cm |
| Package 3 Width | 40 cm |
| Package 3 Length | 80 cm |
| Package 3 Weight | 130.6 kg |

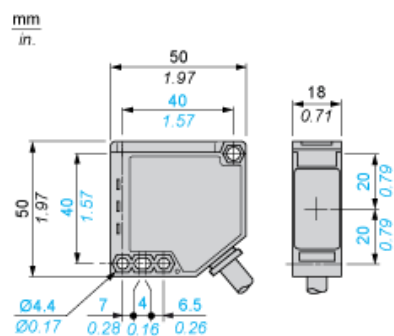
Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation |  REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free | Yes |
| RoHS exemption information |  Yes |
| 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 |

Contractual warranty

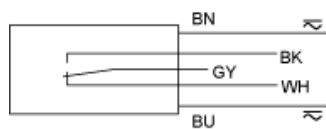
| | |
|----------|-----------|
| Warranty | 18 months |
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Dimensions



Wiring Schemes

Relay Output



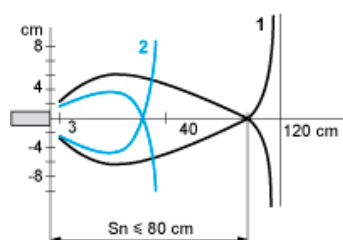
BN : Brown
BU : Blue
BK : Black (NO)
GY : Grey (Relay common)
WH : White (NC)

Detection Curves

With Thru-beam Accessory (Thru-beam)



Without Accessory (Diffuse)

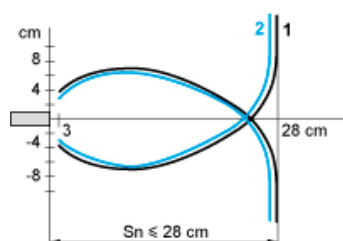


1 : White 90%

2 : Grey 18%

Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)

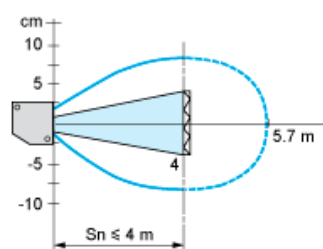


1 : White 90%

2 : Grey 18%

Object 10 x 10 cm

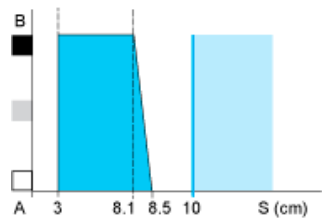
With reflector (Polarised reflex)



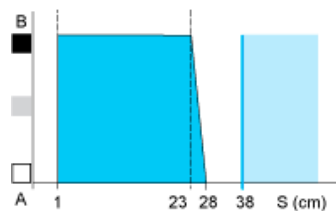
With reflector XUZC50

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

Teach Mode at Minimum



Teach Mode at Maximum



- (1) Black 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)