



Main

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| 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 | 2 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 XUK0ARCTL2T 0.28 M diffuse with background suppression 0.8 m diffuse |

Complementary

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|--------------------------------|---|
| 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 |

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| Depth | 50 mm |
| Height | 50 mm |
| Width | 18 mm |
| Net weight | 0.175 kg |

Environment

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

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|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 4.2 cm |
| Package 1 Width | 9.7 cm |
| Package 1 Length | 13.2 cm |
| Package 1 Weight | 180.0 g |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 22 |
| Package 2 Height | 15.0 cm |
| Package 2 Width | 30.0 cm |
| Package 2 Length | 40.0 cm |
| Package 2 Weight | 4.539 kg |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 352 |
| Package 3 Height | 80.0 cm |
| Package 3 Width | 80.0 cm |
| Package 3 Length | 60.0 cm |
| Package 3 Weight | 79.14 kg |

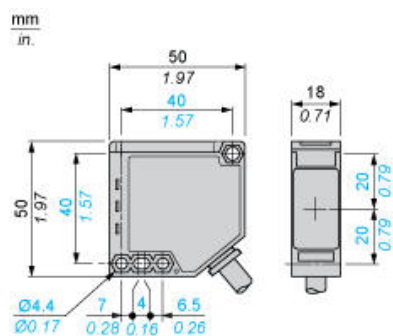
Offer Sustainability

| | |
|--|--|
| 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 www.P65Warnings.ca.gov |
| For all Reach Rohs enquiries contact us at | sustainability@tesensors.com |

Contractual warranty

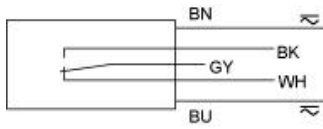
| | |
|----------|-----------|
| Warranty | 18 months |
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Dimensions



Wiring Schemes

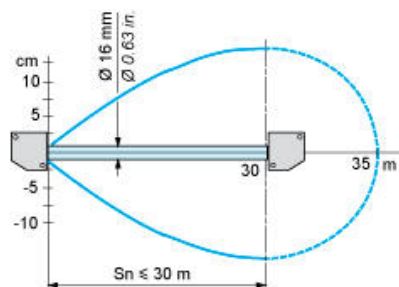
Relay Output



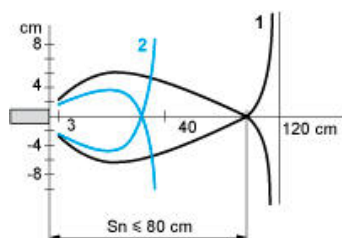
BN : Brown
BU : Blue
BK : Black (NO)
GY : Grey (Relay common)
WH : White (NC)

Detection Curves

With Thru-beam Accessory (Thru-beam)



Without Accessory (Diffuse)

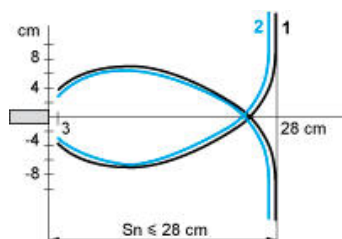


1 : White 90%

2 : Grey 18%

Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)

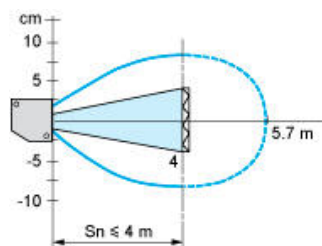


1 : White 90%

2 : Grey 18%

Object 10 x 10 cm

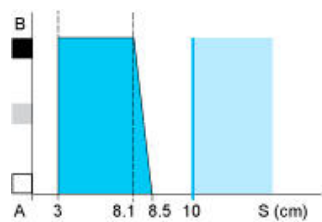
With reflector (Polarised reflex)



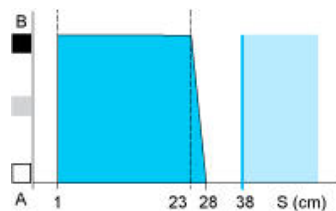
With reflector XUZC50

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)