

# Product data sheet

# XUK0ARCTL2

Photoelectric sensor XUK, multimode, Sn 0...30 m, 24...240 VAC/DC, cable 2 m, NO/NC

## Main

| | |
|---|---|
| Range of product | Telemecanique Photoelectric sensors XU |
| Series name | General purpose multimode |
| Sensor name | XUK |
| Electronic sensor type | Photo-electric sensor |
| Sensor design | Compact 50 x 50 |
| Product specific application | Not applicable |
| ETIM classification | ETIM 9 - EC002716 - Through beam photoelectric sensor |
| Material | Plastic |
| Lens material | PMMA |
| Enclosure material | PBT |
| [Sn] nominal sensing distance | 4-4 m polarised reflex need reflector XUZC50, 30-30 m thru beam need a transmitter XUK0ARCTL2T, 0.28-0.28 m diffuse with background suppression, 0.8-0.8 m diffuse |
| Maximum sensing distance | 35 m thru beam, 0.28 m diffuse with background suppression, 1.2 m diffuse, 5.7 m polarised reflex |
| Wiring technique | 5-wire |
| Detection system | Multimode |
| Delay response | 25 ms |
| Indivisible sale quantity | 1 |

## Complementary

| | |
|---|---|
| Sensing range | 0...30 m |
| Electrical durability | 500000 cycles, cos f = 1 , operating rate <60 cyc/mn at 250 V |
| Electrical connection | Cable |
| Cable length | 2 m |
| Supply voltage limits | 20-264 V AC, 20-264 V DC |
| [Us] rated supply voltage | 24...240 V AC, 24...240 V DC |
| Supply circuit type | AC/DC |
| Switching capacity in mA | 3 A (cos φ = 1 for 0.5 million cycles at 1 operating cycle per second at 250 V) |
| Maximum voltage drop | <1.5 V (closed state) |
| Emission | Infrared diffuse, infrared diffuse with background suppression, infrared thru beam, red polarised reflex |

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.
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| | |
|---|---|
| Setting-up | Self teaching |
| Output type | Relay |
| Type of output signal | Discrete |
| Add on output | Without, <= 50 mA with overload and short-circuit protection |
| Discrete output function | 1 NO or 1 NC programmable |
| Time delay range | 0...10 s monostable, on-delay or off-delay (programmable) delay |
| Switching frequency | 20 Hz |
| Status LED | 1 LED (green) for supply, 1 LED (red) for instability, 1 LED (yellow) for output state |
| Delay first up | 300 ms |
| Delay recovery | 25 ms |
| Height | 50 mm |
| Width | 18 mm |
| Depth | 50 mm |
| Product weight | 0.175 kg |

## Environment

| | |
|---|---|
| IP degree of protection | IP65 double insulation conforming to IEC 60529 |
| Ambient air temperature for storage | -40...70 °C |
| Shock resistance | 30 gn (duration = 11 ms) conforming to IEC 60068-2-27 |
| Vibration resistance | 7 gn, amplitude = +/- 1.5 mm (f = 10-55 Hz) conforming to IEC 60068-2-6 |

## Offer Sustainability

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

## Warranty

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

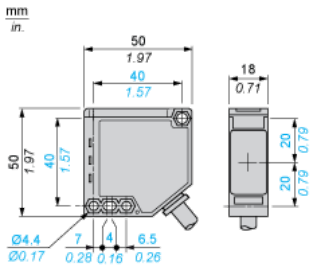
## Packing Units

| | |
|---|---|
| Country of origin | ID (Indonesia) |
| Unit type of package 1 | PCE |
| Number of units in package 1 | 1 |
| New Package 1 GTIN-13 | 3666916033739 |
| Package 1 height | 4.2 cm |
| Package 1 width | 9.7 cm |
| Package 1 length | 13.2 cm |
| Package 1 weight | 0.175 kg |
| Unit type of package 2 | S02 |
| Number of units in package 2 | 22 |

| | |
|---|---|
| New Package 2 GTIN 14 | 13666916033736 |
| Package 2 height | 30 cm |
| Package 2 width | 15 cm |
| Package 2 length | 40 cm |
| Package 2 weight | 0.0045 kg |
| Unit type of package 3 | CAR |
| Number of units in package 3 | 1 |
| New Package 3 GTIN 14 | 23666916033733 |
| Package 3 height | 4.2 cm |
| Package 3 width | 9.7 cm |
| Package 3 length | 13.2 cm |
| Package 3 weight | 0.18 kg |

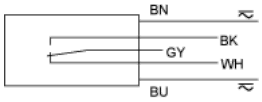
## Technical Drawings

### Dimensions




### Wiring Schemes

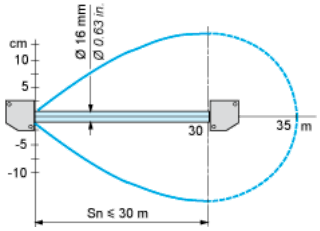
Relay Output




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

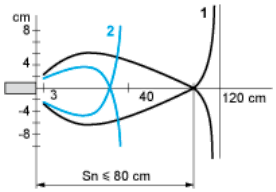
### Detection Curves

With Thru-beam Accessory (Thru-beam)



## Detection Curves

### Without Accessory (Diffuse)

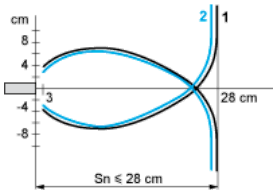



- 1 : White 90%
- 2 : Grey 18%

Object 10 x 10 cm

## Detection Curves

### Without Accessory (Diffuse with background suppression)

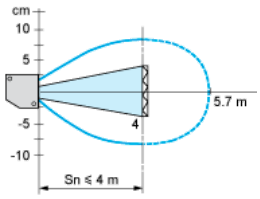



- 1 : White 90%
- 2 : Grey 18%
- 1 : White 90%
- 2 : Grey 18%

Object 10 x 10 cm

## Detection Curves

### With reflector (Polarised reflex)

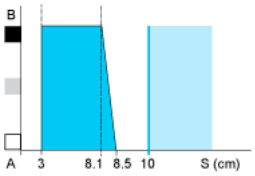



- 1 : White 90%
- 2 : Grey 18%
- 1 : White 90%
- 2 : Grey 18%

With reflector XUZC50

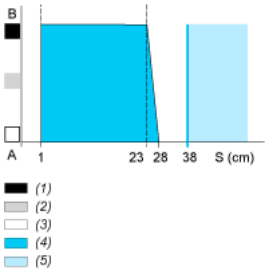
## Detection Curves

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




- 1 : White 90%
- 2 : Grey 18%
- 1 : White 90%
- 2 : Grey 18%

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




- 1 : White 90%
- 2 : Grey 18%
- 1 : White 90%
- 2 : Grey 18%
- A-B : Object reflection coefficient
- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)