

# XUK0ARCTL10

photo-electric sensor - XUK - multi - Sn 0..30m -  
24..240VAC/DC - cable 10m



## Main

|                               |  |
|-------------------------------|--|
| Range of product              | OsiSense 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<br>Infrared diffuse with background suppression<br>Infrared thru beam<br>Red polarised reflex   |
| [Sn] nominal sensing distance | 0.28 m diffuse with background suppression<br>0.8 m diffuse<br>4 m polarised reflex need reflector XUZC50<br>30 m thru beam need a transmitter<br>XUK0ARCTL10T |

## Complementary

|                           |   |
|---------------------------|---|
| Enclosure material        | PBT   |
| Lens material             | PMMA  |
| Maximum sensing distance  | 35 m thru beam<br>0.28 m diffuse with background suppression<br>1.2 m diffuse<br>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<br>1 LED (red) for instability<br>1 LED (yellow) for output state              |
| [Us] rated supply voltage | 24...240 V AC<br>24...240 V DC  |
| Supply voltage limits     | 20...264 V AC<br>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  |
| Voltage drop              | <= 1.5 V (closed state)   |
| Power consumption in W    | 3 W AC/DC   |
| Time delay range          | 0...10 s monostable, on-delay or off-delay (programmable) delay   |
| Delay first up            | < 300 ms  |
| Delay response            | < 25 ms   |
| Delay recovery            | < 25 ms   |
| Setting-up                | Self-teaching   |
| Electrical durability     | 500000 cycles, cos f = 1, 60 cyc/mn at 250 V  |

The information provided in this documentation contains general descriptions and/or technical characteristics 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 Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|        |       |
|--------|-------|
| Depth  | 50 mm |
| Height | 50 mm |
| Width  | 18 mm |

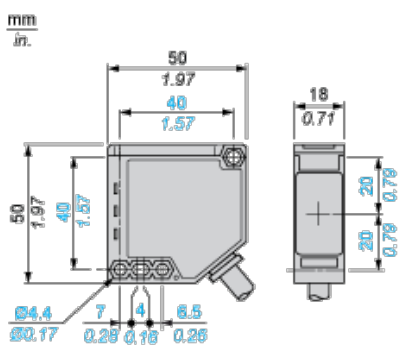
## Environment

|                                       |   |
|---------------------------------------|---|
| product certifications                | CE<br>CSA<br>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                            |

## Offer Sustainability

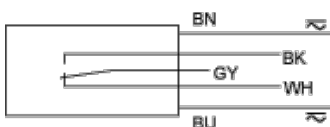
|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Not Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 0903 - Schneider Electric declaration of conformity |
| Product environmental profile    | Available   |
| Product end of life instructions | Available   |

## Dimensions



## Wiring Schemes

### Relay Output



BN : Brown

BU : Blue

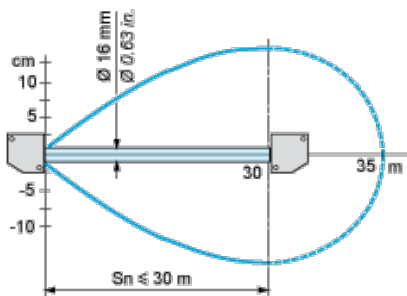
BK : Black (NO)

GY : Grey (Relay common)

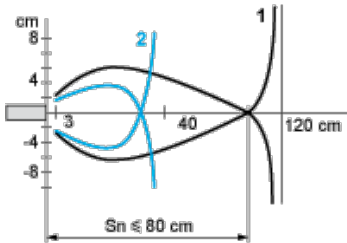
WH : White (NC)

## Detection Curves

### With Thru-beam Accessory (Thru-beam)

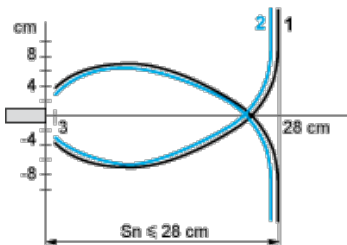


**Without Accessory (Diffuse)**



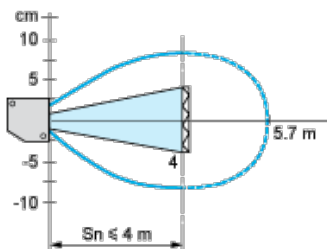
- 1 : White 90%
  - 2 : Grey 18%
- Object 10 x 10 cm

**Without Accessory (Diffuse with background suppression)**



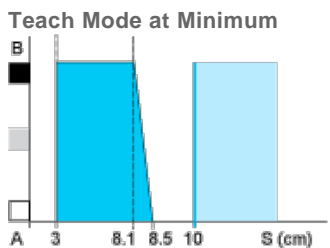
- 1 : White 90%
  - 2 : Grey 18%
- Object 10 x 10 cm

**With reflector (Polarised reflex)**

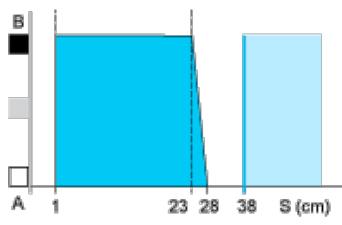


With reflector XUZC50

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



Teach Mode at Maximum



- (1) Black
- (2) Grey
- (3) White
- (4) Sensing range
- (5) Non sensing zone

A-B :Object reflection coefficient

- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)