

# XUK0ARCTL10

Photoelectric sensors XU, photo electric sensor, 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 $\phi$ = 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 CSA 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

Package 1 Weight	0.550 kg
Package 1 Height	0.600 dm
Package 1 width	1.300 dm
Package 1 Length	1.350 dm

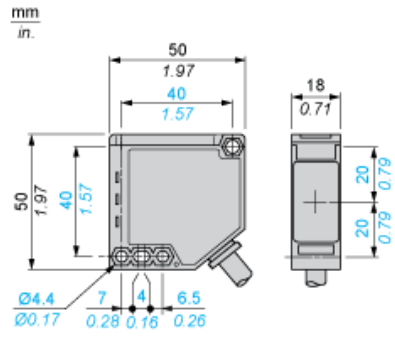
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>

## Contractual warranty

Warranty	18 months
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Dimensions

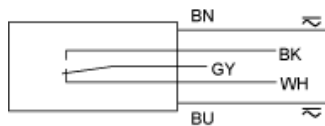


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## Wiring Schemes

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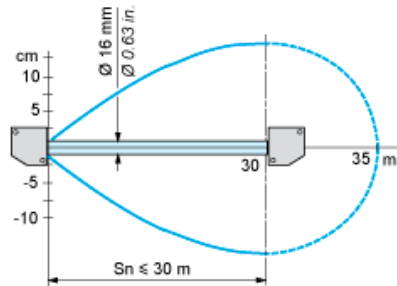
### Relay Output



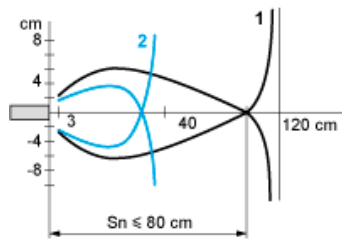
BN : Brown  
BU : Blue  
BK : Black (NO)  
GY : Grey (Relay common)  
WH : White (NC)

Detection Curves

With Thru-beam Accessory (Thru-beam)

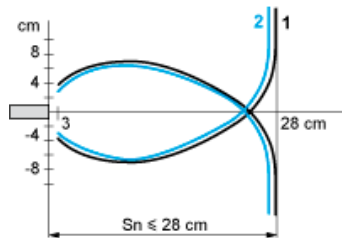


Without Accessory (Diffuse)



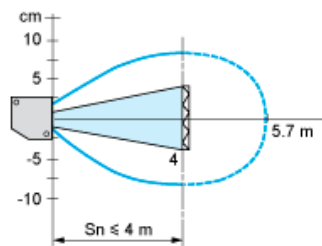
- 1 : White 90%
  - 2 : Grey 18%
- Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)



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

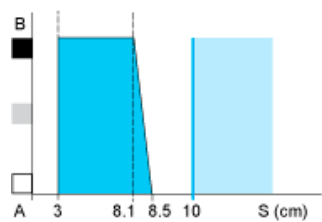
With reflector (Polarised reflex)



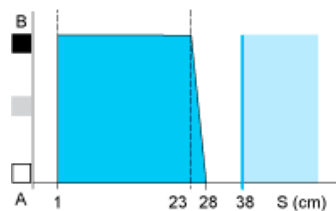
With reflector XUZC50

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

Teach Mode at Minimum



Teach Mode at Maximum



- (1) Black
- (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)