



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	5 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 XUK0ARCTL5T 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
Net weight	0.175 kg

Environment

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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.0 cm
Package 1 Width	13.0 cm
Package 1 Length	13.0 cm
Package 1 Weight	308.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	6.821 kg

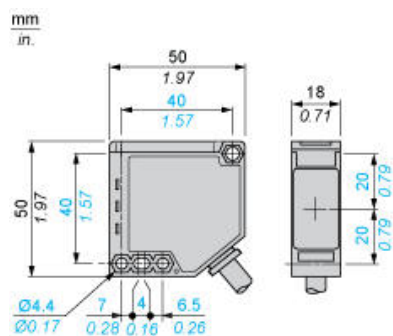
Offer Sustainability

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 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
For all Reach Rohs enquiries contact us at	sustainability@tesensors.com

Contractual warranty

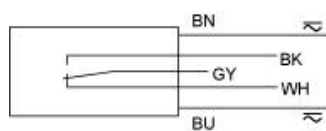
Warranty	18 months
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Dimensions



Wiring Schemes

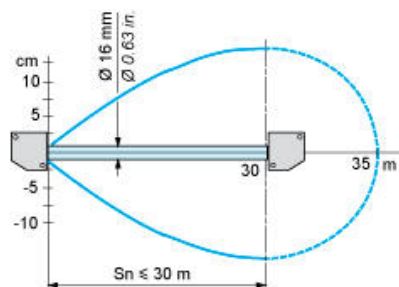
Relay Output



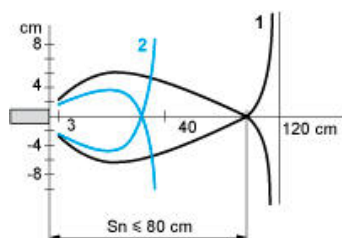
BN : Brown
BU : Blue
BK : Black (NO)
GY : Grey (Relay common)
WH : White (NC)

Detection Curves

With Thru-beam Accessory (Thru-beam)



Without Accessory (Diffuse)

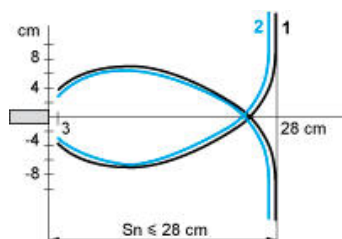


1 : White 90%

2 : Grey 18%

Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)

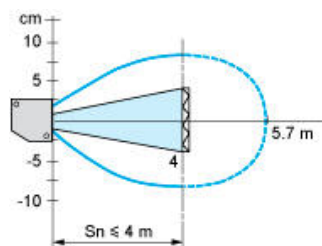


1 : White 90%

2 : Grey 18%

Object 10 x 10 cm

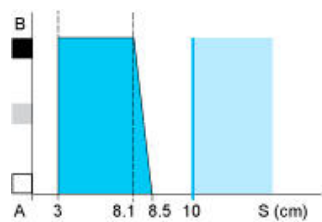
With reflector (Polarised reflex)



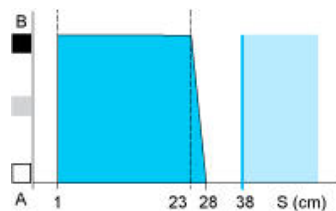
With reflector XUZC50

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)