



## Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	General purpose multimode
Electronic sensor type	Photo-electric sensor
Sensor name	XUX
Sensor design	Compact 92 x 71
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	Screw-clamp terminals, 1 x 1.5 mm <sup>2</sup> or 1 x 0.75 mm <sup>2</sup> with adaptor
Product specific application	-
Emission	Infrared diffuse Infrared diffuse with background suppression Infrared thru beam Red polarised reflex
[Sn] nominal sensing distance	11 m polarised reflex need reflector XUZC50 40 m thru beam need a transmitter XUX0ARCTT16T 2 m diffuse 1.3 m diffuse with background suppression

## Complementary

Enclosure material	PBT
Lens material	PMMA
Maximum sensing distance	15 m polarised reflex 3 m diffuse 60 m thru beam

1.3 m diffuse with background suppression

Output type	Relay
Add on output	With alarm output, <= 100 mA with overload and short-circuit protection
Cable entry	1 entry for M16 x 1.5 cable gland, cable outer diameter: 7...10 mm
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/DC
Switching capacity in mA	0.5 A (cos $\varphi$ = 0.4 for 0.5 million cycles at 1 operating cycle per second at 250 V) 3 A (cos $\varphi$ = 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	2 W AC/DC
Time delay range	0.02...15 s monostable, on-delay or off-delay (programmable) delay
Maximum delay first up	200 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 500000 cycles, cos $f$ = 0.4, operating rate <60 cyc/mn at 250 V
Depth	77 mm
Height	92 mm
Width	31 mm
Net weight	0.2 kg

## Environment

Product certifications	UL CE 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 IP67 double insulation conforming to IEC 60529

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	209 g
Package 1 Height	4 cm
Package 1 width	9.5 cm
Package 1 Length	13 cm
Unit Type of Package 2	S02
Number of Units in Package 2	22
Package 2 Weight	5.175 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

## 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)

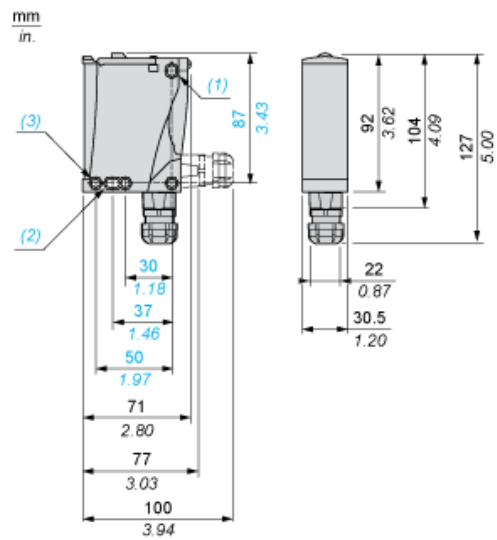
[EU RoHS Declaration](#)

Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

**Contractual warranty**

Warranty	18 months
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Dimensions



- (1) Elongated hole  $\varnothing$  5.5 x 7
- (2) Elongated hole  $\varnothing$  5.5 x 9
- (3)  $\varnothing$  5.5 hole

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## Wiring Schemes

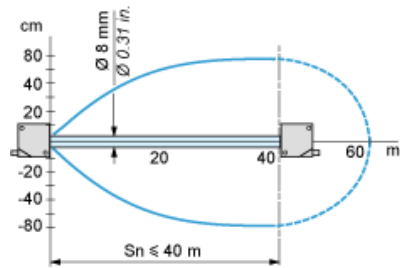
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### Relay Output AC/DC

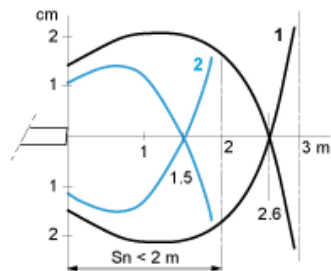
Terminals		
1		AC/DC
2		AC/DC
3		NO
4		Relay common
5		NC

Detection Curves

With Thru-beam Accessory (Thru-beam)

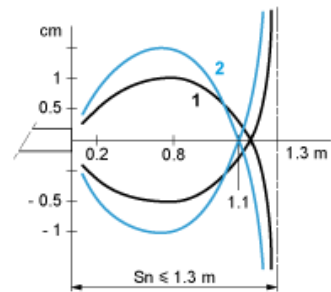


Without Accessory (Diffuse)



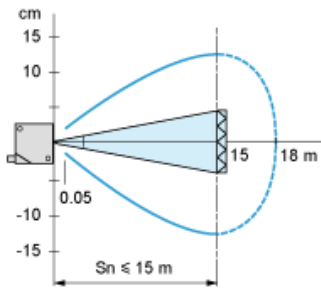
1: White 90%  
2: Grey 18%  
Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)



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

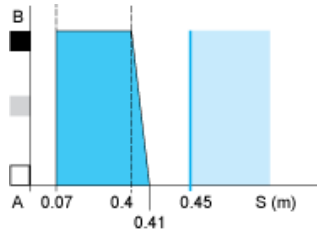
### With reflector (Polarised reflex)



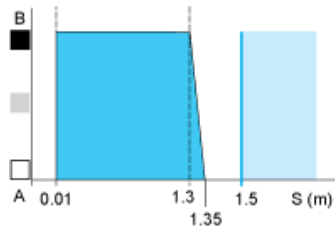
With reflector XUZC50

### 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) Blue
- (5) Light Blue

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