



Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	Application assembly
Electronic sensor type	Photo-electric sensor
Sensor name	XUA
Sensor design	Cylindrical M8
Detection system	Diffuse
Material	Metal
Line of sight type	Axial
Type of output signal	Discrete
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP
Discrete output function	1 NC
Electrical connection	1 male connector M8, 3 pins
Product specific application	-
Emission	Infrared diffuse
[Sn] nominal sensing distance	0.05 m diffuse

Complementary

Enclosure material	Nickel plated brass
Lens material	Polyamide
Maximum sensing distance	0.06 m
Output type	Solid state
Add on output	Without
Cable composition	3 x 0.14 mm <sup>2</sup>
Wire insulation material	PvR
Cable outer diameter	3.5 mm
Status LED	1 LED (yellow) for output state
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Supply voltage limits	10...30 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	<= 2000 Hz
Maximum voltage drop	<1 V (closed state)
Current consumption	<= 10 mA no-load
Maximum delay first up	20 ms
Maximum delay response	0.25 ms
Maximum delay recovery	0.25 ms
Setting-up	Without sensitivity adjustment
Diameter	8 mm
Length	48 mm
Net weight	0.05 kg

## Environment

Product certifications	CE[RETURN]cULus
Ambient air temperature for operation	-25...55 °C
Ambient air temperature for storage	-30...70 °C
Vibration resistance	7 gn, amplitude = +/- 1 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	IP67 conforming to IEC 60529 IP65 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	4.5 cm
Package 1 Length	11.0 cm
Package 1 Weight	30.0 g
Unit Type of Package 2	S01
Number of Units in Package 2	10
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	460.0 g

## Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including: Diisobutyl 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>
For all Reach Rohs enquiries contact us at	<a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>

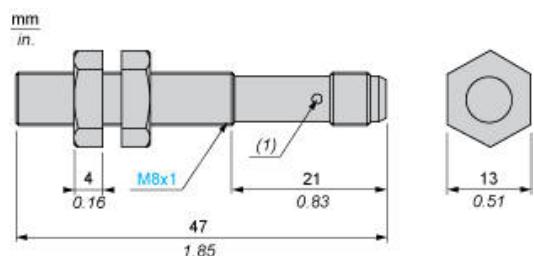
## Contractual warranty

Warranty	18 months
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Dimensions

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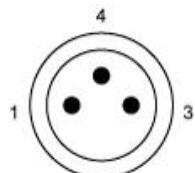
(1) LED, 4 viewing ports at 90°  
Note Fixing nut tightening torque : <2N.m

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### Wiring Schemes

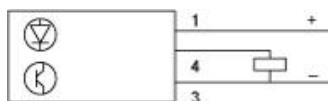
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#### M8 Connector



1 : (+)  
3 : (-)  
4 : OUT or test

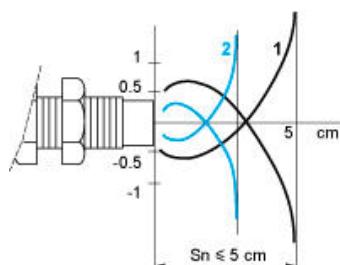
#### PNP



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Detection Curves

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1 : White 90%

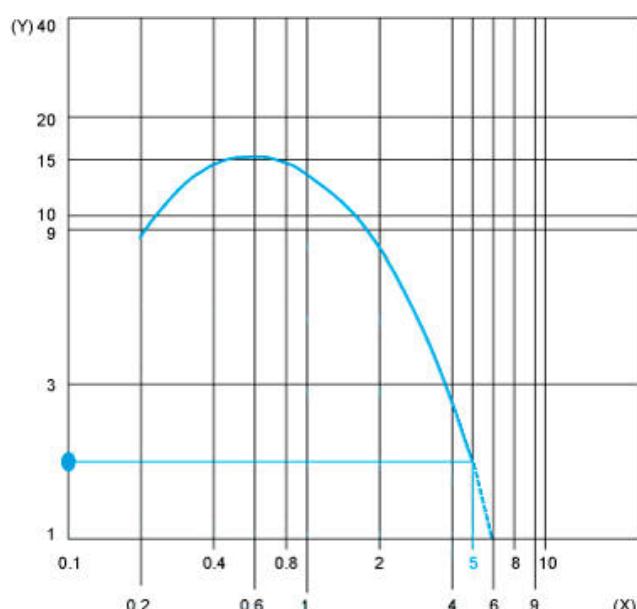
2 : Grey 18%

Object 5 x 5 cm

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Excess Gain Curves (Ambient temperature:  $\pm 25^\circ\text{C}$ )

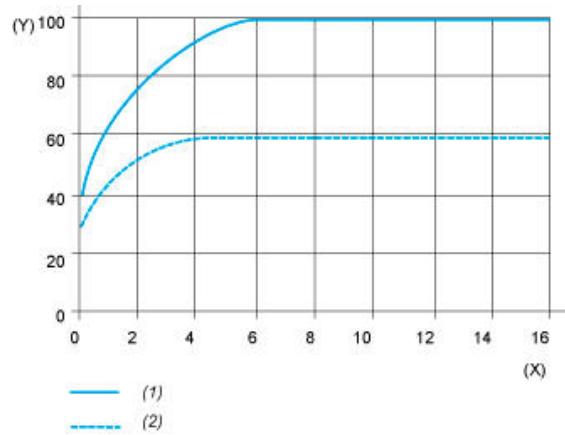
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(Y) Gain

(X) Distance (m)

Object 5 x 5 cm, White 90%



(1) White  
(2) Grey  
(Y) Variation of sensing distance  $S_n$   
(X) Side of square object (cm)

Detection differential ( $H$ ) when object approaches from the front:  $H \leq 25\%$  of  $S_n$