



## 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 NO
Electrical connection	1 male connector M8, 3 pins
Product Specific Application	-
Emission	Infrared diffuse
[Sn] nominal sensing distance	0.16 ft (0.05 m) diffuse

## Complementary

Enclosure Material	Nickel Plated Brass
Lens material	PMMA
Maximum sensing distance	0.20 ft (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	0.14 in (3.5 mm)
Status LED	1 LED yellow)output state
[Us] rated supply voltage	12...24 V DC reverse polarity protection
Supply voltage limits	10...30 V DC
Switching capacity in mA	<= 100 mA overload and short-circuit protection)
Switching frequency	<= 1000 Hz
Maximum voltage drop	<1 V closed state)
Current consumption	<= 25 mA no-load
Maximum delay first up	20 ms
Maximum delay response	0.5 ms
Maximum delay recovery	0.5 ms
Setting-up	Without sensitivity adjustment
Diameter	0.31 in (8 mm)
Length	1.89 in (48 mm)
Product Weight	1.10 lb(US) (0.5 kg)

## Environment

Product Certifications	CE cULus
Ambient air temperature for operation	-13...131 °F (-25...55 °C)
Ambient Air Temperature for Storage	-22...158 °F (-30...70 °C)
Vibration resistance	7 gn +/- 1 mm 10...55 Hz) IEC 60068-2-6
Shock resistance	30 gn 11 ms) IEC 60068-2-27
IP degree of protection	IP67 IEC 60529 IP65 IEC 60529

## Ordering and shipping details

Category	22481-SENSORS, PHOTOELECTRIC
Discount Schedule	DS2
GTIN	3389110427233
Returnability	Yes
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.73 in (4.4 cm)
Package 1 Width	2.68 in (6.8 cm)
Package 1 Length	3.78 in (9.6 cm)
Package 1 Weight	0.99 oz (28.0 g)
Unit Type of Package 2	S01
Number of Units in Package 2	24
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	5.91 in (15.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	30.76 oz (872.0 g)

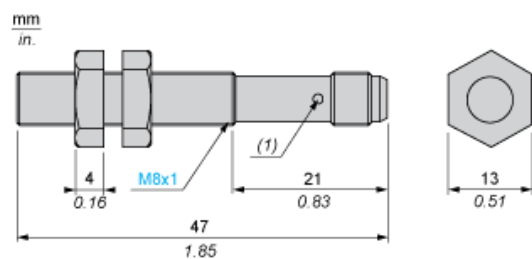
## Offer Sustainability

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>
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>

## Contractual warranty

Warranty	18 months
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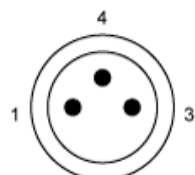
## Dimensions



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

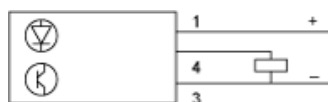
## Wiring Schemes

### M8 Connector

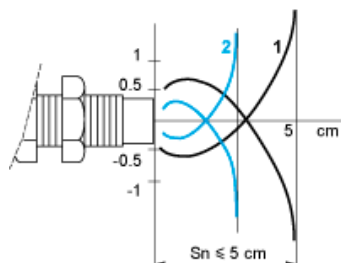


- 1 : (+)
- 3 : (-)
- 4 : OUT or test

### PNP

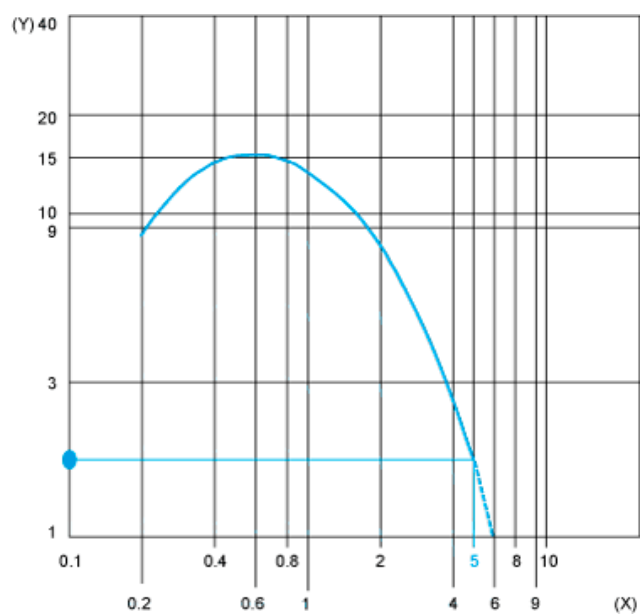


## Detection Curves

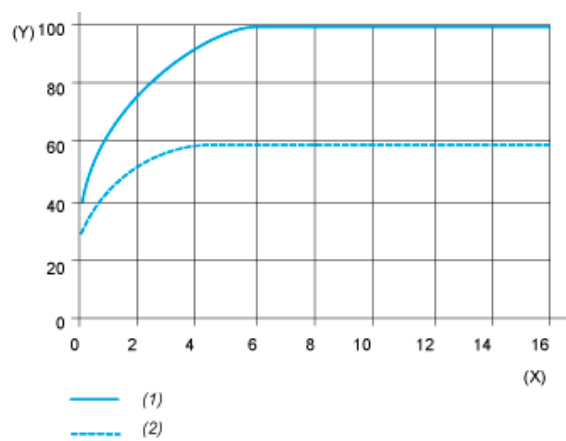


1 : White 90%  
2 : Grey 18%  
Object 5 x 5 cm

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



(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  $S_n$