

Photoelectric sensors XU, miniature, diffuse  
short, Smax=0.25 m, PNP, connector M8



## Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	General purpose single mode
Electronic sensor type	Photo-electric sensor
Sensor name	XUM
Sensor design	Miniature
Detection system	Diffuse
Material	Plastic
Type of output signal	Discrete
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP
Discrete output function	1 NO or 1 NC programmable
Electrical connection	1 male connector M8, 4 pins
Emission	Infrared diffuse
[Sn] nominal sensing distance	0.17 m

## Complementary

Enclosure material	PBT
Lens material	PMMA
Maximum sensing distance	0.25 m
Output type	Solid state
Status LED	Stability: 1 LED (green) Output state: 1 LED (orange)
[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 with overload and short-circuit protection
Switching frequency	<= 1000 Hz
Maximum voltage drop	<2 V
Current consumption	20 mA no-load
Maximum delay first up	100 ms
Maximum delay response	0.5 ms
Maximum delay recovery	0.5 ms
Setting-up	Sensitivity by potentiometer
Depth	20 mm
Height	44 mm
Width	10 mm
Net weight	0.01 kg

## Environment

Product certifications	cULus[RETURN]CE[RETURN]UKCA
Ambient air temperature for operation	-30...55 °C
Ambient air temperature for storage	-40...70 °C
Relative humidity	35...95 %
Immunity to ambient light	40000 Lux sunlight 10000 lux incandescent light
Vibration resistance	9 gn, amplitude = +/- 1.5 mm (f = 10...500 Hz) for every axis conforming to IEC 60068-2-6

Shock resistance	100 gn (duration = 11 ms) for for every axis 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	1.5 cm
Package 1 Width	4.5 cm
Package 1 Length	9.0 cm
Package 1 Weight	13.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	120
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.066 kg

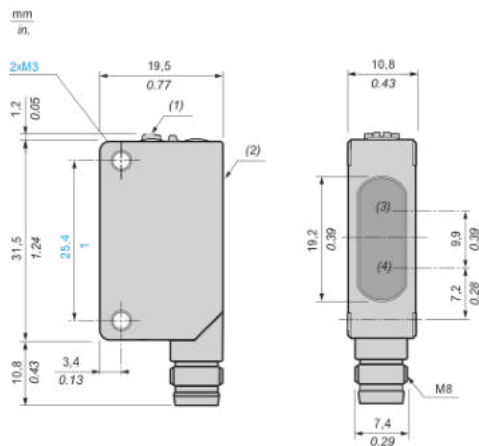
### Offer Sustainability

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>
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



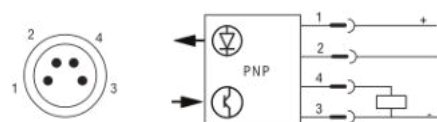
- (1) : Setting potentiometer (sensitivity)
- (2) : Setting potentiometer (output)
- (3) : Reception
- (4) : Transmission

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## Connection and schema

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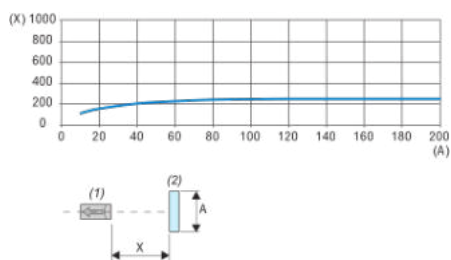
### Wiring diagram



- 1 : (+)
- 2 : Not connected
- 3 : (-)
- 4 : OUT/Output

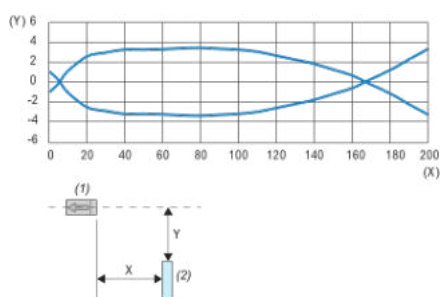
## Detection curves

### Object size/sensing distance



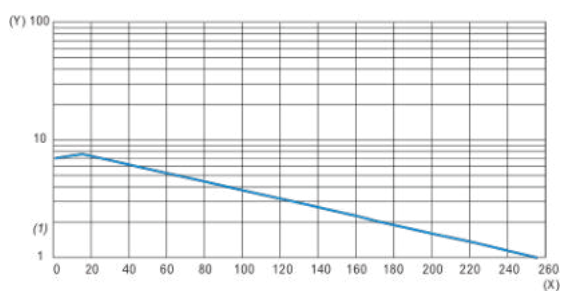
- (1) : Sensor  
(2) : Object (white mat paper of A mm square)  
(A) : Side length (mm)  
(X) : Sensing distance (mm)

### Lateral displacement



- (1) : Sensor  
(2) : Object (200 x 200 mm square white paper)  
(X) : Sensing distance (mm)  
(Y) : Lateral displacement (mm)

### Excess gain



- (1) : Operation level  
(X) : Sensing distance (m)  
(Y) : Excess gain