

# XUM0APSAM8

Photoelectric sensors XU, XUM, multi, Sn  
0...10 m, 12...24 VDC, M8



## Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	General purpose multimode
Electronic sensor type	Photo-electric sensor
Sensor name	XUM
Sensor design	Miniature
Detection system	Multimode
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
Product specific application	-
Emission	Infrared diffuse Infrared diffuse with background suppression Infrared thru beam Red polarised reflex
[Sn] nominal sensing distance	3 M polarised reflex need reflector XUZC50 10 M thru beam need a transmitter XUM0AKSAM8T 0.1 M diffuse with background suppression 0.4 m diffuse

## Complementary

Enclosure material	PBT
Lens material	PMMA
Maximum sensing distance	14 M thru beam 4 M polarised reflex 0.1 M diffuse with background suppression 0.55 m diffuse
Output type	Solid state
Add on output	With alarm output, 50 mA
Wire insulation material	PVC
Status LED	1 LED (green) for supply 1 LED (red) for instability 1 LED (yellow) for output state
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	<= 250 Hz 240 Hz
Maximum voltage drop	<1.5 V (closed state)
Current consumption	35 mA no-load
Maximum delay first up	100 ms
Maximum delay response	2 ms
Maximum delay recovery	2 ms
Setting-up	Self-teaching
Depth	20 mm
Height	45 mm
Width	12 mm
Net weight	0.035 kg

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither TWSS Holding nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Environment

Product certifications	CSA[RETURN]UL[RETURN]CE
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 conforming to IEC 60529 IP67 conforming to IEC 60529

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.2 cm
Package 1 Width	6.7 cm
Package 1 Length	9.7 cm
Package 1 Weight	35.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	22
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	3.195 kg
Unit Type of Package 3	P06
Number of Units in Package 3	352
Package 3 Height	75 cm
Package 3 Width	40 cm
Package 3 Length	80 cm
Package 3 Weight	28.88 kg

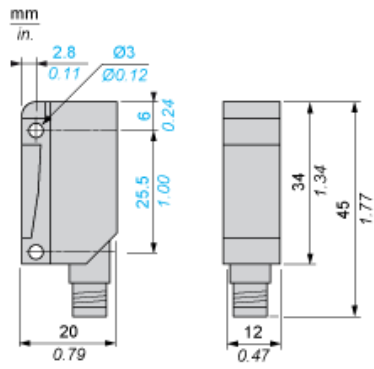
## Offer Sustainability

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 <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

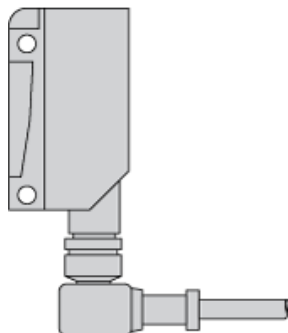


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## Mounting and Clearance

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### Possible Orientation of Elbowed Connector

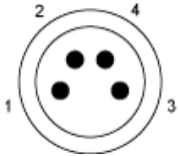


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## Wiring Schemes

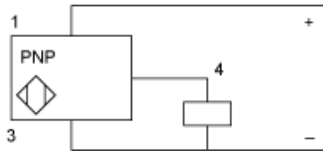
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### M8 Connector



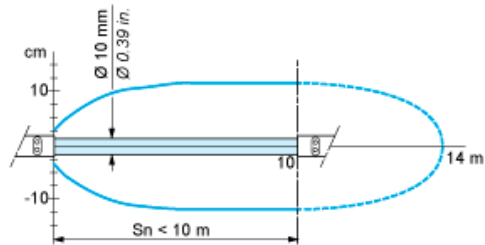
- 1 : (+)
- 3 : (-)
- 4 : OUT/Output

### Receiver, PNP Output

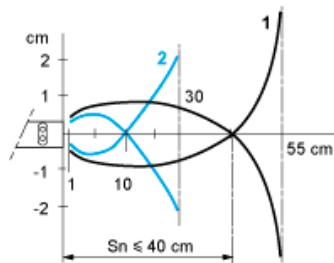


Detection Curves

With Thru-beam Accessory (Thru-beam)

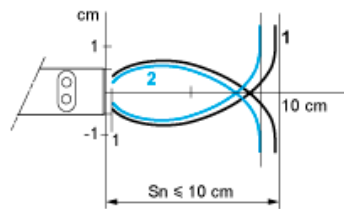


Without Accessory (Diffuse)



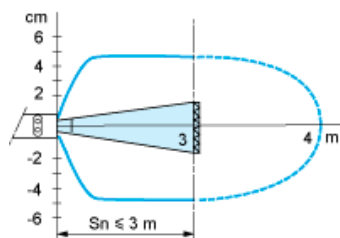
- 1: White 90%
  - 2: Grey 18%
- Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)



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

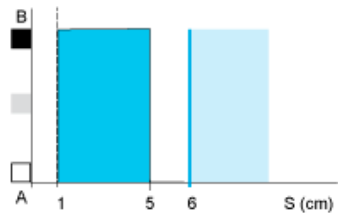
With reflector (Polarised reflex)



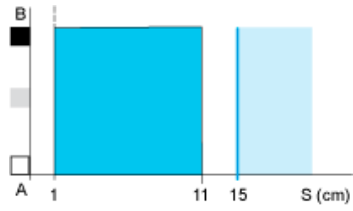
With reflector XUZC50

## 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)