

XUM8APXB M8

Photoelectric sensors XU, miniature, background suppression, Smax=0.30 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 with background suppression
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	Male connector M8, 4 pins
Emission	Red LED diffuse with background suppression
[Sn] nominal sensing distance	0.66 ft (0.20 m)

Complementary

Enclosure Material	PBT
Lens material	PMMA
Maximum sensing distance	0.98 ft (0.30 m)
Output Type	Solid state
Status LED	Stability 1 LED green) Output state 1 LED orange)
[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	<2 V closed state)
Current consumption	30 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	1.06 in (27 mm)
Height	1.73 in (44 mm)
Width	0.39 in (10 mm)
Net Weight	0.02 lb(US) (0.01 kg)

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Environment

Product Certifications	CULus CE UKCA
Ambient Air Temperature for Operation	-22...131 °F (-30...55 °C)
Ambient Air Temperature for Storage	-40...158 °F (-40...70 °C)
Relative humidity	35...95 %
Immunity to ambient light	40000 Lux sunlight 10000 lux incandescent light
Vibration resistance	9 gn +/- 1.5 mm 10...500 Hz)for every axis IEC 60068-2-6
Shock resistance	100 gn 11 ms) for every axis IEC 60068-2-27
IP degree of protection	IP67 IEC 60529 IP65 IEC 60529

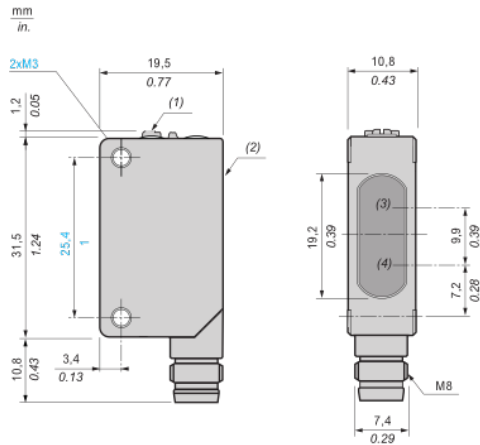
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.79 in (2 cm)
Package 1 Width	3.54 in (9 cm)
Package 1 Length	4.72 in (12 cm)
Package 1 Weight	0.42 oz (12 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	1
Package 2 Height	5.91 in (15 cm)
Package 2 Width	7.87 in (20 cm)
Package 2 Length	9.84 in (25 cm)
Package 2 Weight	0.71 oz (20 g)
Unit Type of Package 3	S02
Number of Units in Package 3	120
Package 3 Height	5.91 in (15 cm)
Package 3 Width	11.81 in (30 cm)
Package 3 Length	15.75 in (40 cm)
Package 3 Weight	4.35 lb(US) (1.975 kg)

Offer Sustainability

REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration

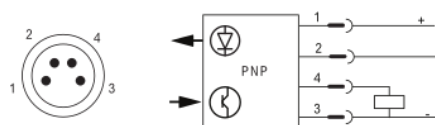
Dimensions



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

Connection and schema

Wiring diagram



1 : (+)

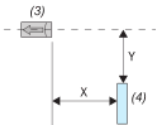
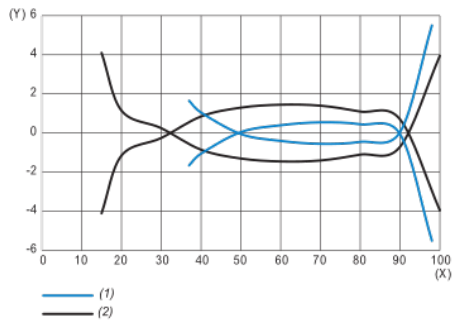
2 : Not connected

3 : (-)

4 : OUT/Output

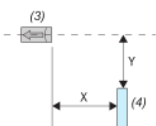
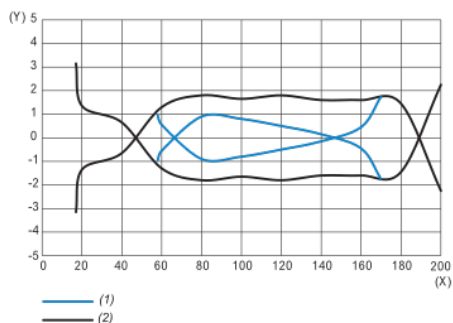
Detection curves

Lateral displacement (preset 100 mm)



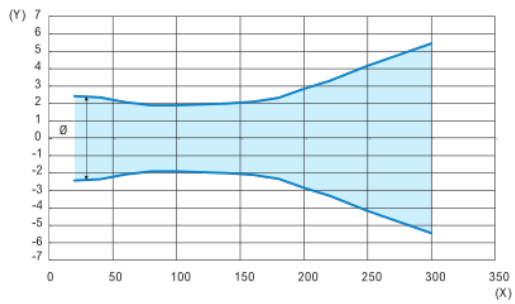
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

Lateral displacement (preset 200 mm)



- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

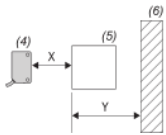
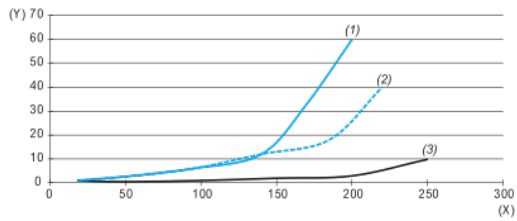
Light beam diameter



(X) : Sensing distance (mm)

(Y) : Light beam diameter (mm)

Minimum distance between the object to detect and white background



(1) : Min. distance black object (6%)/white background (90%) (mm)

(2) : Min. distance grey object (18%)/white background (90%) (mm)

(3) : Min. distance white object (90%)/white background (90%) (mm)

(4) : Sensor

(5) : Object

(6) : Background

(X) : Distance sensor/object (mm)

(Y) : Min. distance object/background (mm)