

# Product datasheet

Specifications



Photoelectric sensors XU,  
miniature, background suppression,  
Smax=0.30 m, PNP, cable 2 m

XUM8APXBL2

EAN Code : 3389110974874

## 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         | Cable                                       |
| Cable length                  | 2 m                                         |
| Emission                      | Red LED diffuse with background suppression |
| [Sn] nominal sensing distance | 0.20 m                                      |

## Complementary

|                           |                                                          |
|---------------------------|----------------------------------------------------------|
| Enclosure material        | PBT                                                      |
| Lens material             | PMMA                                                     |
| Maximum sensing distance  | 0.30 m                                                   |
| Output type               | Solid state                                              |
| Wire insulation material  | PVC                                                      |
| Status LED                | Stability: 1 LED (green)<br>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 (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                  | 27 mm                        |
| Height                 | 33 mm                        |
| Width                  | 10 mm                        |
| Net weight             | 0.063 kg                     |

## Environment

|                                       |                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------|
| Product certifications                | cULus<br>CE<br>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<br>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<br>IP65 conforming to IEC 60529                             |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 1.500 cm  |
| Package 1 Width              | 18.000 cm |
| Package 1 Length             | 24.500 cm |
| Package 1 Weight             | 50.000 g  |
| Unit Type of Package 2       | S04       |
| Number of Units in Package 2 | 160       |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 40.000 cm |
| Package 2 Length             | 60.000 cm |
| Package 2 Weight             | 9.830 kg  |

## Offer Sustainability

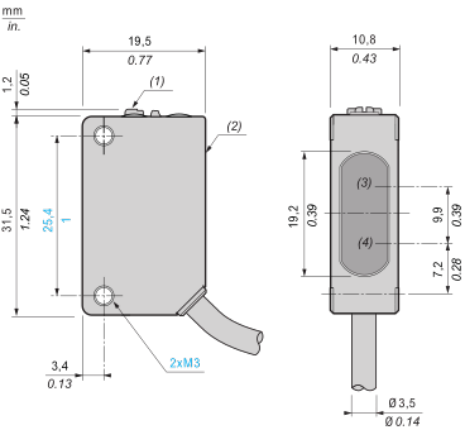
|                       |                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------|
| REACH Regulation      | <a href="#">REACH Declaration</a>                                                                 |
| EU RoHS Directive     | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a> |
| Mercury free          | Yes                                                                                               |
| China RoHS Regulation | <a href="#">China RoHS declaration</a>                                                            |

|                            |     |
|----------------------------|-----|
| RoHS exemption information | Yes |
|----------------------------|-----|

Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

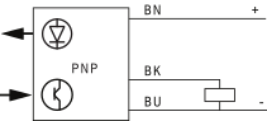
Dimensions



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

Connection and schema

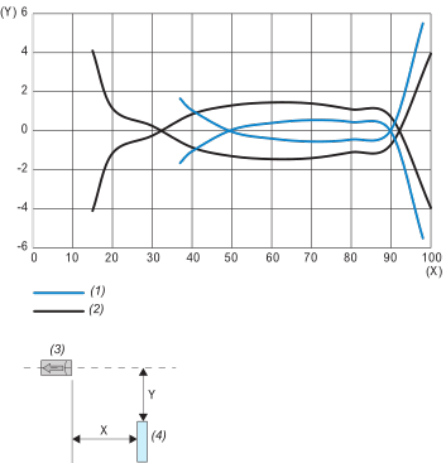
Wiring diagram



- BN (Brown) : (+)
- BK (Black) : OUT/Output
- BU (Blue) : (-)

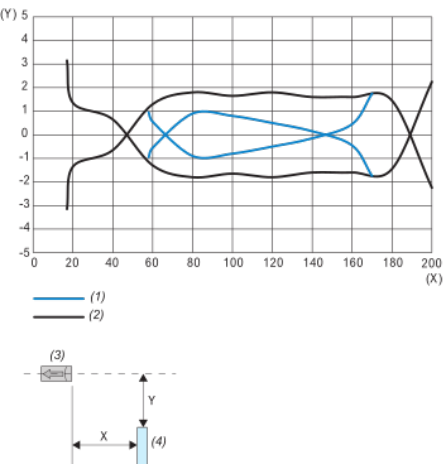
Detection curves

Lateral displacement (preset 100 mm)



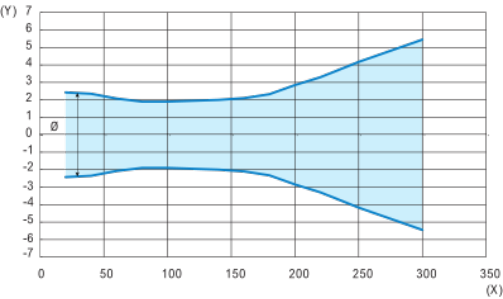
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

Lateral displacement (preset 200 mm)



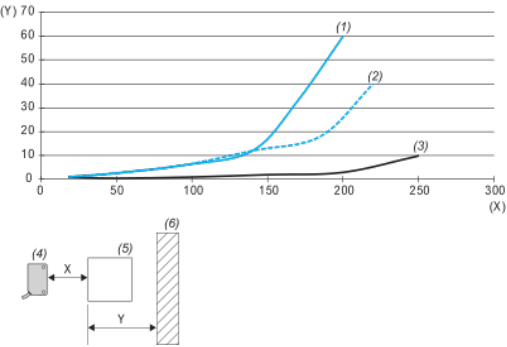
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

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)

Recommended replacement(s)