

# XUM8ANXB2

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



## 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          | NPN                                         |
| 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                     | 20 mm                                                    |
| Height                    | 33 mm                                                    |
| Width                     | 10 mm                                                    |
| Net weight                | 0.063 kg                                                 |

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## 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<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 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             | 1.5 cm   |
| Package 1 Width              | 10.0 cm  |
| Package 1 Length             | 18.0 cm  |
| Package 1 Weight             | 50.0 g   |
| Unit Type of Package 2       | S04      |
| Number of Units in Package 2 | 160      |
| Package 2 Height             | 30.0 cm  |
| Package 2 Width              | 40.0 cm  |
| Package 2 Length             | 60.0 cm  |
| Package 2 Weight             | 9.885 kg |

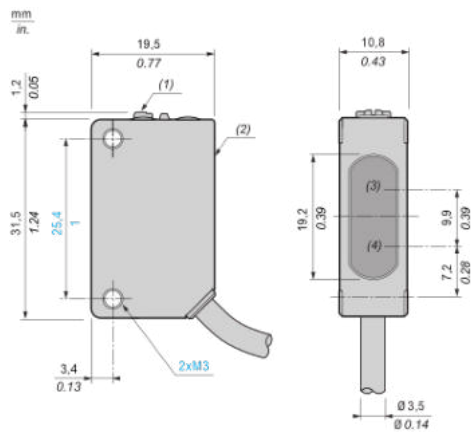
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|----------|-----------|

## Dimensions



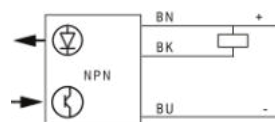
- (1) : Setting potentiometer (sensitivity)
- (2) : Setting potentiometer (output)
- (3) : Reception
- (4) : Transmission

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## Connection and schema

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### Wiring diagram



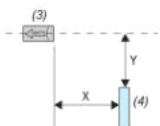
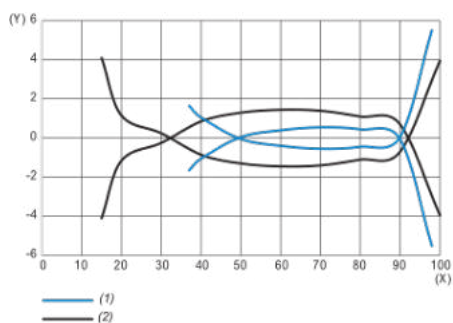
BN (Brown) : (+)

BK (Black) : OUT/Output

BU (Blue) : (-)

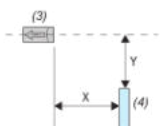
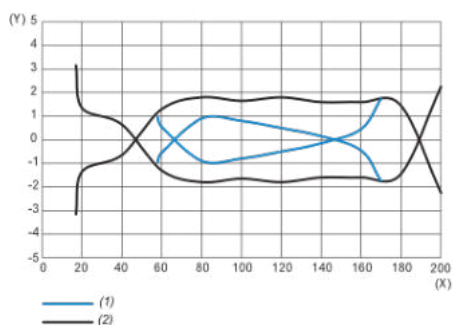
## Detection curves

### Lateral displacement (preset 100 mm)



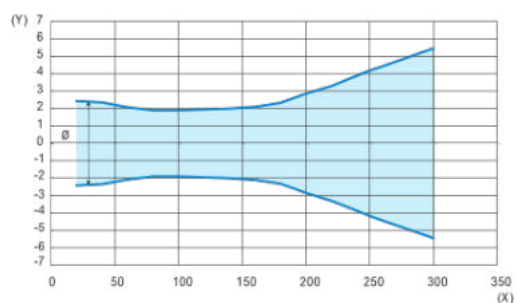
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

### 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)

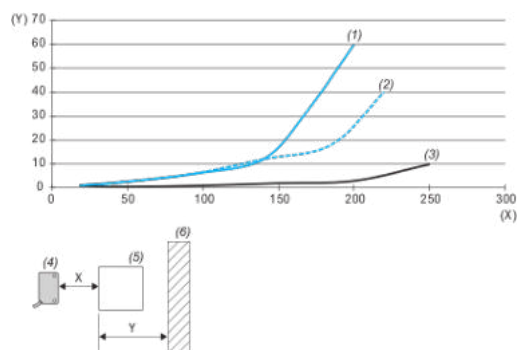
## Light beam diameter



(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)