

Product data sheet

Specifications



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

XUM8APXBL2

Main

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|-------------------------------|---|
| 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) 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

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|---------------------------------------|---|
| Product certifications | cULus CE 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 every axis conforming to IEC 60068-2-27 |
| IP degree of protection | IP67 conforming to IEC 60529 IP65 conforming to IEC 60529 |

Packing Units

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|------------------------------|-----------|
| Unit Type of Package 1 | Db |
| 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 | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS declaration |

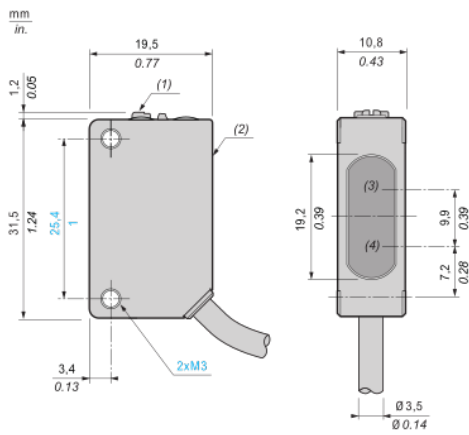
| | |
|-----------------------------------|-----|
| RoHS exemption information | Yes |
|-----------------------------------|-----|

| | |
|----------------------------------|---|
| 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 www.P65Warnings.ca.gov |
|----------------------------------|---|

Contractual warranty

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

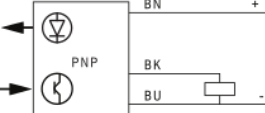
Dimensions



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

Connection and schema

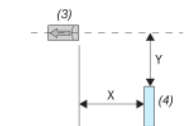
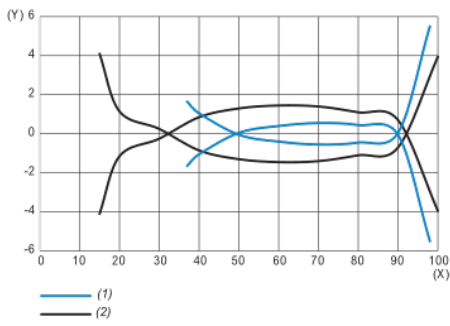
Wiring diagram



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

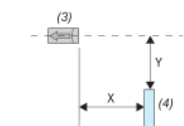
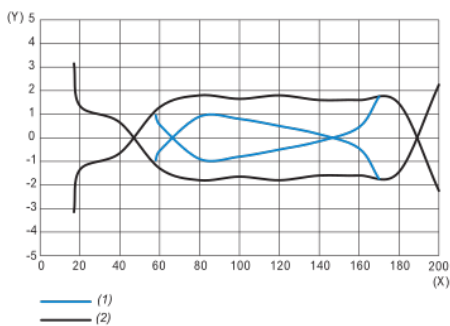
Detection curves

Lateral displacement (preset 100 mm)



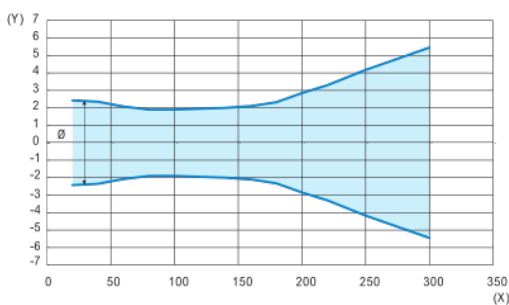
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

Lateral displacement (preset 200 mm)



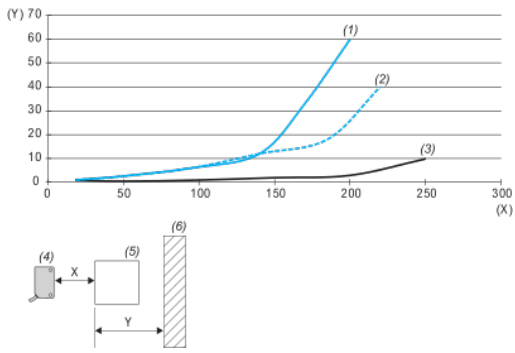
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

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)