



## Main

|                               |                                        |
|-------------------------------|----------------------------------------|
| Range of Product              | Telemecanique Photoelectric sensors XU |
| Series name                   | Application assembly                   |
| Electronic sensor type        | Photo-electric sensor                  |
| Sensor name                   | XUA                                    |
| Sensor design                 | Cylindrical M8                         |
| Detection system              | Diffuse                                |
| Material                      | Metal                                  |
| Line of sight type            | Axial                                  |
| Type of output signal         | Discrete                               |
| Supply circuit type           | DC                                     |
| Wiring Technique              | 3-wire                                 |
| Discrete output type          | PNP                                    |
| Discrete output function      | 1 NO                                   |
| Electrical connection         | Cable                                  |
| Cable length                  | 6.56 ft (2 m)                          |
| Product Specific Application  | -                                      |
| Emission                      | Infrared diffuse                       |
| [Sn] nominal sensing distance | 0.16 ft (0.05 m) diffuse               |

## Complementary

|                           |                                                  |
|---------------------------|--------------------------------------------------|
| Enclosure Material        | Nickel Plated Brass                              |
| Lens material             | PMMA                                             |
| Maximum sensing distance  | 0.20 ft (0.06 m)                                 |
| Output Type               | Solid state                                      |
| Add on output             | Without                                          |
| Cable composition         | 3 x 0.14 mm <sup>2</sup>                         |
| Wire insulation material  | PvR                                              |
| Cable outer diameter      | 0.14 in (3.5 mm)                                 |
| Status LED                | 1 LED yellow)output state                        |
| [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      | <1 V closed state)                               |
| Current consumption       | <= 25 mA no-load                                 |
| Maximum delay first up    | 20 ms                                            |
| Maximum delay response    | 0.5 ms                                           |
| Maximum delay recovery    | 0.5 ms                                           |
| Setting-up                | Without sensitivity adjustment                   |
| Diameter                  | 0.31 in (8 mm)                                   |
| Length                    | 1.85 in (47 mm)                                  |
| Product Weight            | 0.03 lb(US) (0.015 kg)                           |

## Environment

|                                       |                                         |
|---------------------------------------|-----------------------------------------|
| Product Certifications                | CE<br>cULus                             |
| Ambient air temperature for operation | -13...131 °F (-25...55 °C)              |
| Ambient Air Temperature for Storage   | -22...158 °F (-30...70 °C)              |
| Vibration resistance                  | 7 gn +/- 1 mm 10...55 Hz) IEC 60068-2-6 |
| Shock resistance                      | 30 gn 11 ms) IEC 60068-2-27             |
| IP degree of protection               | IP65 IEC 60529                          |

## Ordering and shipping details

|                   |                              |
|-------------------|------------------------------|
| Category          | 22481-SENSORS, PHOTOELECTRIC |
| Discount Schedule | DS2                          |
| GTIN              | 3389110427165                |
| Returnability     | No                           |
| Country of origin | FR                           |

## Packing Units

|                              |                       |
|------------------------------|-----------------------|
| Unit Type of Package 1       | PCE                   |
| Number of Units in Package 1 | 1                     |
| Package 1 Height             | 1.38 in (3.5 cm)      |
| Package 1 Width              | 3.54 in (9.0 cm)      |
| Package 1 Length             | 4.33 in (11.0 cm)     |
| Package 1 Weight             | 1.76 oz (50.0 g)      |
| Unit Type of Package 2       | S01                   |
| Number of Units in Package 2 | 24                    |
| Package 2 Height             | 5.91 in (15.0 cm)     |
| Package 2 Width              | 5.91 in (15.0 cm)     |
| Package 2 Length             | 15.75 in (40.0 cm)    |
| Package 2 Weight             | 3.06 lb(US) (1.39 kg) |

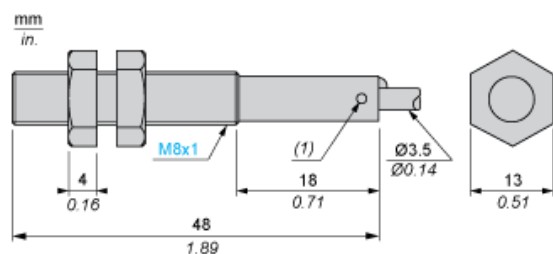
## Offer Sustainability

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

## Contractual warranty

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

## Dimensions



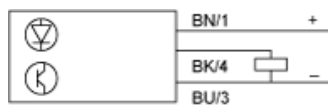
(1) LED, 4 viewing ports at 90°  
Note Fixing nut tightening torque : <2N.m

---

## Wiring Schemes

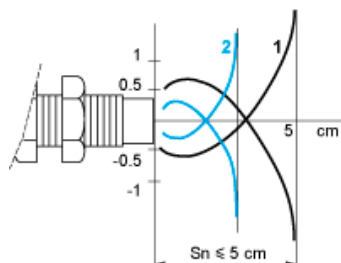
---

### PNP



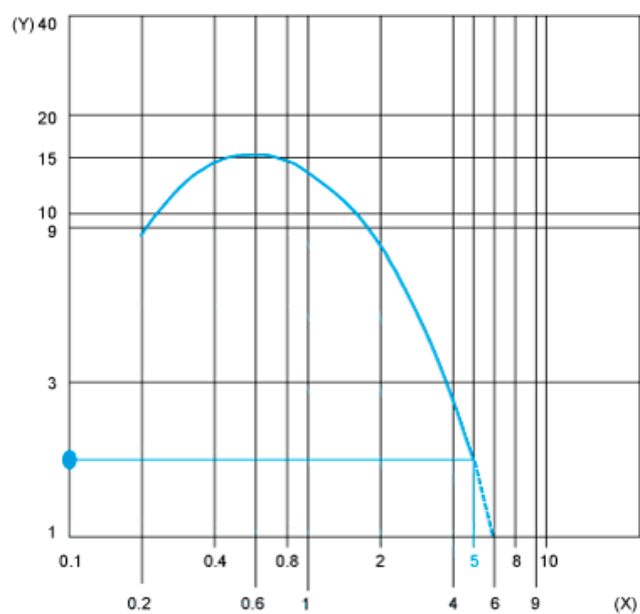
BN : Brown  
BU : Blue  
BK : Black

## Detection Curves

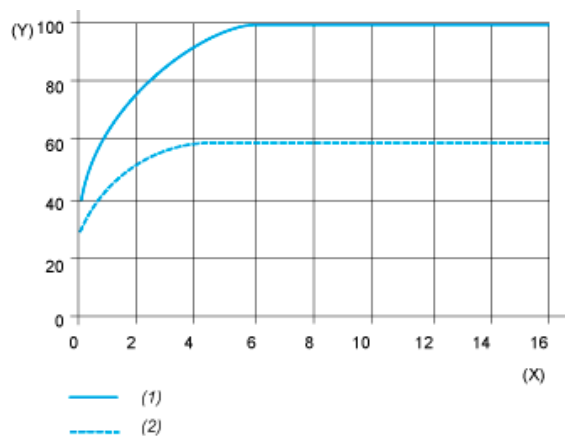


1 : White 90%  
2 : Grey 18%  
Object 5 x 5 cm

## Excess Gain Curves (Ambient temperature: $\pm 25^{\circ}\text{C}$ )



(Y) Gain  
(X) Distance (m)  
Object 5 x 5 cm, White 90%



(1) White

(2) Grey

(Y) Variation of sensing distance  $S_n$

(X) Side of square object (cm)

Detection differential (H) when object approaches from the front:  $H \leq 25\%$  of  $S_n$