



## Main

|                               |                                                                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of Product              | Telemecanique Photoelectric sensors XU                                                                                                                                                               |
| Series name                   | Application food and beverage multimode                                                                                                                                                              |
| Electronic sensor type        | Photo-electric sensor                                                                                                                                                                                |
| Sensor name                   | XUB                                                                                                                                                                                                  |
| Sensor design                 | Cylindrical M18                                                                                                                                                                                      |
| Detection system              | Multimode                                                                                                                                                                                            |
| Material                      | Stainless steel                                                                                                                                                                                      |
| 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 or 1 NC programmable                                                                                                                                                                            |
| Electrical connection         | 1 male connector M12, 4 pins                                                                                                                                                                         |
| Product Specific Application  | -                                                                                                                                                                                                    |
| Emission                      | Infrared diffuse<br>Infrared diffuse with background suppression<br>Infrared thru beam<br>Red polarised reflex                                                                                       |
| [Sn] nominal sensing distance | 9.84 Ft (3 m) polarised reflex need reflector XUZC50<br>65.62 Ft (20 m) thru beam need a transmitter XUB0SKSNM12T<br>0.39 Ft (0.12 m) diffuse with background suppression<br>0.98 ft (0.3 m) diffuse |

## Complementary

|                           |                                                                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Enclosure Material        | Stainless steel : 304 CU                                                                                                                          |
| Lens material             | PMMA                                                                                                                                              |
| Maximum sensing distance  | 0.39 Ft (0.12 m) diffuse with background suppression<br>1.31 Ft (0.4 m) diffuse<br>98.43 Ft (30 m) thru beam<br>14.76 ft (4.5 m) polarised reflex |
| Output Type               | Solid state                                                                                                                                       |
| Status LED                | 1 LED green)output state<br>1 LED red)supply on<br>1 LED yellow)stability                                                                         |
| [Us] rated supply voltage | 12...24 V DC reverse polarity protection                                                                                                          |
| Supply voltage limits     | 10...36 V DC                                                                                                                                      |
| Switching capacity in mA  | <= 100 mA overload and short-circuit protection)                                                                                                  |
| Switching frequency       | <= 250 Hz                                                                                                                                         |
| Maximum voltage drop      | <1.5 V closed state)                                                                                                                              |
| Current consumption       | 35 mA no-load                                                                                                                                     |
| Maximum delay first up    | 200 ms                                                                                                                                            |
| Maximum delay response    | 2 ms                                                                                                                                              |
| Maximum delay recovery    | 2 ms                                                                                                                                              |
| Setting-up                | Self-training                                                                                                                                     |
| Diameter                  | 0.71 in (18 mm)                                                                                                                                   |
| Length                    | 3.07 in (78 mm)                                                                                                                                   |
| Net Weight                | 0.12 lb(US) (0.055 kg)                                                                                                                            |

## Environment

|                                       |                                                                                                           |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Product Certifications                | CSA<br>UL<br>CE                                                                                           |
| Ambient air temperature for operation | -13...131 °F (-25...55 °C)                                                                                |
| Ambient Air Temperature for Storage   | -40...158 °F (-40...70 °C)                                                                                |
| Vibration resistance                  | 7 gn +/- 1.5 mm 10...55 Hz) IEC 60068-2-6                                                                 |
| Shock resistance                      | 30 gn 11 ms) IEC 60068-2-27                                                                               |
| IP degree of protection               | IP65 double insulation IEC 60529<br>IP67 double insulation IEC 60529<br>IP69K double insulation DIN 40050 |

## Ordering and shipping details

|                   |                              |
|-------------------|------------------------------|
| Category          | 22481-SENSORS, PHOTOELECTRIC |
| Discount Schedule | DS2                          |
| GTIN              | 3389119010443                |
| Returnability     | No                           |
| Country of origin | FR                           |

## Packing Units

|                              |                       |
|------------------------------|-----------------------|
| Unit Type of Package 1       | PCE                   |
| Number of Units in Package 1 | 1                     |
| Package 1 Height             | 1.73 in (4.4 cm)      |
| Package 1 Width              | 2.60 in (6.6 cm)      |
| Package 1 Length             | 3.62 in (9.2 cm)      |
| Package 1 Weight             | 2.57 oz (73.0 g)      |
| Unit Type of Package 2       | S01                   |
| Number of Units in Package 2 | 22                    |
| 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             | 3.95 lb(US) (1.79 kg) |

## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                                                                                                                                                                                                             |
| 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>                                                                                                                                                                                                                                                                                                                                                               |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                                                                                                                                                                                                                                                                                     |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                                                                                                                                                                                                                                                                                                           |

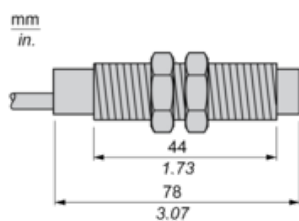
## Contractual warranty

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

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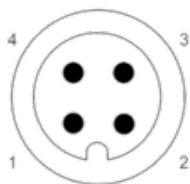
Dimensions

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## Wiring Schemes

### M12 Connector



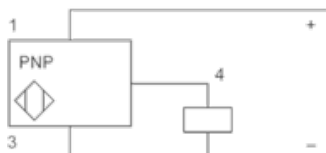
3 : (-)

1 : (+)

4 : OUT/Output

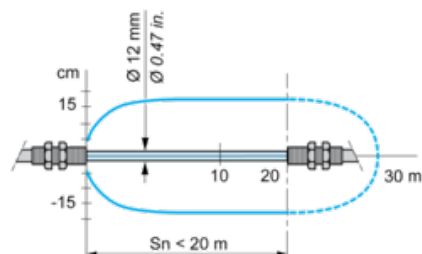
2 : Not connected

### PNP

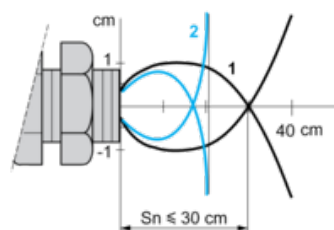


## Detection Curves

### With Thru-beam Accessory (Thru-beam)



### Without Accessory (Diffuse)

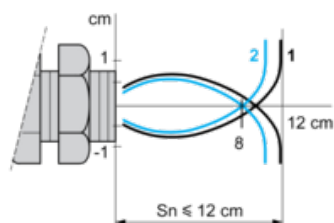


1 : White 90%

2 : Grey 18%

Object: 10 x 10 cm

### Without Accessory (Diffuse with Background. Suppression)

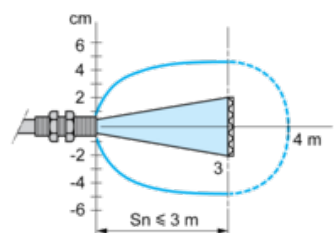


1 : White 90%

2 : Grey 18%

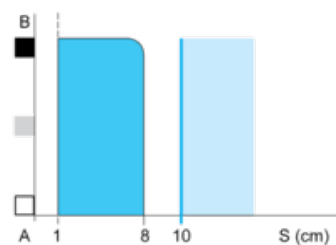
Object: 10 x 10 cm

### With Reflector XU5C50 (Polarised Reflex)

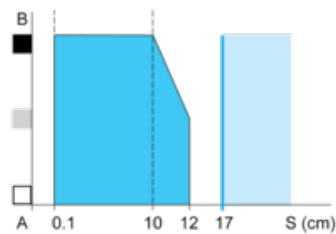


### Variation of Usable Sensing Distance $S_u$ (Without Accessory, with Adjustable Background Suppression)

Teach mode at minimum



Teach mode at maximum



- (1) Black
- (2) Grey
- (3) White
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

A-B : Object reflection coefficient

- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)