

# XU8M18MA230

Photoelectric sensors XU, XU8, BGS, Sn 0.12 m, 24...240VAC/DC, 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                   | XU8                                          |
| Sensor design                 | Cylindrical M18                              |
| Detection system              | Diffuse with background suppression          |
| Material                      | Metal                                        |
| Line of sight type            | Axial                                        |
| Type of output signal         | Discrete                                     |
| Supply circuit type           | AC/DC                                        |
| Wiring technique              | 2-wire                                       |
| Discrete output function      | 1 NO                                         |
| Electrical connection         | Cable                                        |
| Cable length                  | 2 m                                          |
| Product specific application  | -                                            |
| Emission                      | Infrared diffuse with background suppression |
| [Sn] nominal sensing distance | 0.12 m diffuse with background suppression   |

## Complementary

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Enclosure material        | Nickel plated brass                                                         |
| Lens material             | PMMA                                                                        |
| Maximum sensing distance  | 0.12 m                                                                      |
| Output type               | Solid state                                                                 |
| Add on output             | Without                                                                     |
| Wire insulation material  | PvR                                                                         |
| Status LED                | 1 LED (yellow) for output state                                             |
| [Us] rated supply voltage | 24...240 V AC/DC                                                            |
| Supply voltage limits     | 20...264 V AC/DC                                                            |
| Maximum residual current  | 1.5 mA open state                                                           |
| Switching capacity in mA  | 10...200 mA (to be used with 0.4 A quick-blow fuse in series with the load) |
| Switching frequency       | <= 25 Hz                                                                    |
| Maximum voltage drop      | <6 V (closed state)                                                         |
| Maximum delay first up    | 300 ms                                                                      |
| Maximum delay response    | 20 ms                                                                       |
| Maximum delay recovery    | 20 ms                                                                       |
| Setting-up                | Sensitivity adjustment                                                      |
| Diameter                  | 18 mm                                                                       |
| Length                    | 82 mm                                                                       |
| Net weight                | 0.15 kg                                                                     |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither TWSS Holding nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Environment

|                                       |                                                                           |
|---------------------------------------|---------------------------------------------------------------------------|
| Product certifications                | CSA[RETURN]UL[RETURN]CE                                                   |
| Ambient air temperature for operation | -25...55 °C                                                               |
| Ambient air temperature for storage   | -40...70 °C                                                               |
| Vibration resistance                  | 7 gn, amplitude = +/- 1.5 mm (f = 10...55 Hz) conforming to IEC 60068-2-6 |
| Shock resistance                      | 30 gn (duration = 11 ms) conforming to IEC 60068-2-27                     |
| IP degree of protection               | IP67 double insulation conforming to IEC 60529                            |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 4.1 cm  |
| Package 1 Width              | 9.4 cm  |
| Package 1 Length             | 13.0 cm |
| Package 1 Weight             | 133.0 g |
| Unit Type of Package 2       | S02     |
| Number of Units in Package 2 | 22      |
| Package 2 Height             | 15.0 cm |
| Package 2 Width              | 30.0 cm |
| Package 2 Length             | 40.0 cm |
| Package 2 Weight             | 3.32 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> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>                                                                                                                                                                                                                                                                                                    |

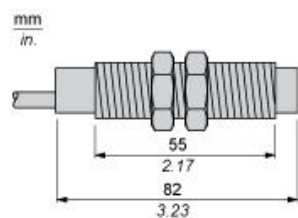
## Contractual warranty

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

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Dimensions

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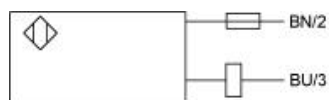


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## Wiring Schemes

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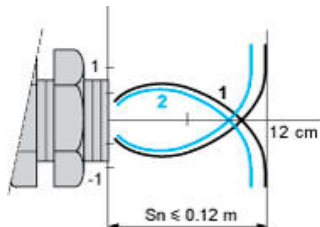
### 2-wire AC or DC



BU : Blue  
BN : Brown

## Detection Curves

### Diffuse System with Adjustable Background Suppression



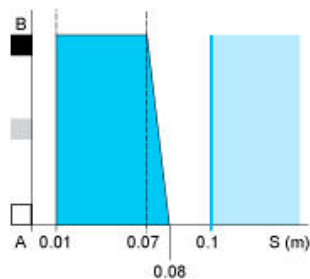
1 : White 90%

2 : Grey 18%

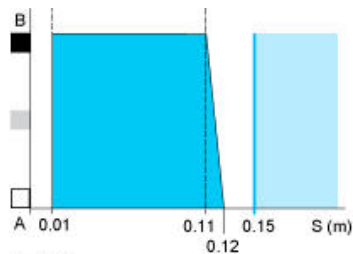
Object 10 x 10 cm

### Variation of Usable Sensing Distance $S_u$

Potentiometer Set at Minimum



Potentiometer Set at Maximum



- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (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)