

# XUM0APSA10

photo-electric sensor - XUM - multi - Sn 0..10m  
- 12..24VDC - cable 10m



## Main

|                               |   |
|-------------------------------|---|
| Range of product              | Telemecanique Photoelectric sensors XU  |
| Series name                   | General purpose multimode   |
| Electronic sensor type        | Photo-electric sensor   |
| Sensor name                   | XUM   |
| Sensor design                 | Miniature   |
| Detection system              | Multimode   |
| 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                  | 10 m  |
| Product specific application  | -   |
| Emission                      | Infrared diffuse<br>Infrared diffuse with background suppression<br>Infrared thru beam<br>Red polarised reflex  |
| [Sn] nominal sensing distance | 3 M polarised reflex need reflector XUZC50<br>10 M thru beam need a transmitter XUM0AKSA10T<br>0.1 M diffuse with background suppression<br>0.4 m diffuse |

## Complementary

|                           |   |
|---------------------------|---|
| Enclosure material        | PBT   |
| Lens material             | PMMA  |
| Maximum sensing distance  | 14 M thru beam<br>4 M polarised reflex<br>0.1 M diffuse with background suppression<br>0.55 m diffuse |
| Output type               | Solid state   |
| Add on output             | With alarm output, 50 mA  |
| Wire insulation material  | PvR   |
| Status LED                | 1 LED (green) for supply<br>1 LED (red) for instability<br>1 LED (yellow) for output state            |
| [Us] rated supply voltage | 12...24 V DC with reverse polarity protection   |
| 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    | 100 ms  |
| Maximum delay response    | 2 ms  |
| Maximum delay recovery    | 2 ms  |
| Setting-up                | Self-teaching   |
| Depth                     | 20 mm   |
| Height                    | 34 mm   |
| Width                     | 12 mm   |

## 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               | IP65 double insulation conforming to IEC 60529<br>IP67 double insulation conforming to IEC 60529 |

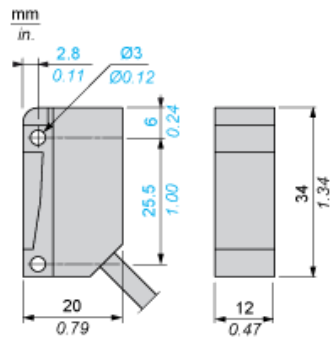
## Packing Units

|                              |     |
|------------------------------|-----|
| Unit Type of Package 1       | PCE |
| Number of Units in Package 1 | 1   |

## Contractual warranty

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

## Dimensions

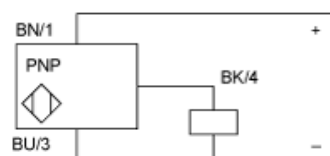


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## Wiring Schemes

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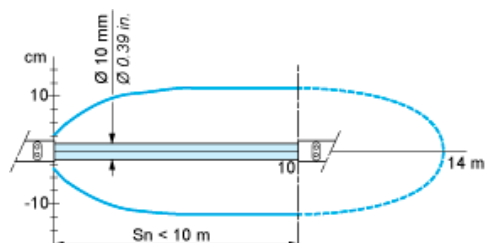
### Receiver, PNP Output



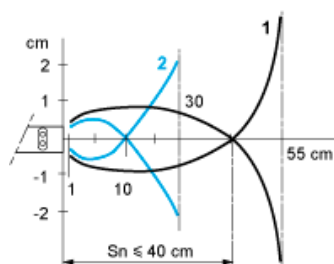
BN : Brown  
BU : Blue  
BK : Black

Detection Curves

With Thru-beam Accessory (Thru-beam)

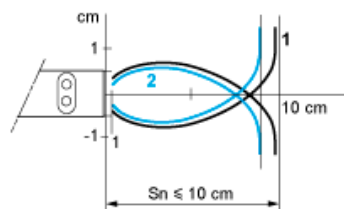


Without Accessory (Diffuse)



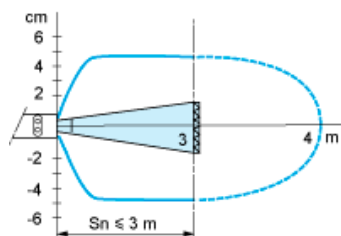
1 : White 90%  
2 : Grey 18%  
Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)



1 : White 90%  
2 : Grey 18%  
Object 10 x 10 cm

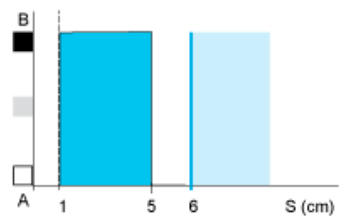
With reflector (Polarised reflex)



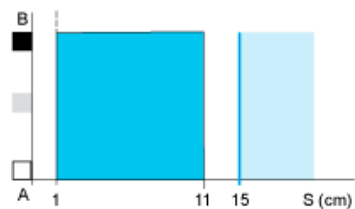
With reflector XU5C50

## 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)