

# XUYPS2945S

photo-electric sensor - XUY - BGS - 2 channels  
- Sn 600mm - 12..24VDC - cable 2m



## Main

|                               |                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Range of product              | OsiSense XU                                                                                                     |
| Series name                   | Application material handling                                                                                   |
| Electronic sensor type        | Photo-electric sensor                                                                                           |
| Sensor name                   | XUY                                                                                                             |
| Sensor design                 | Compact                                                                                                         |
| Detection system              | Diffuse with background suppression                                                                             |
| Material                      | Plastic                                                                                                         |
| Type of output signal         | Discrete                                                                                                        |
| Supply circuit type           | DC                                                                                                              |
| Wiring technique              | 4-wire                                                                                                          |
| Discrete output type          | PNP and NPN                                                                                                     |
| Discrete output function      | 1 NO or 1 NC programmable                                                                                       |
| Electrical connection         | Cable                                                                                                           |
| Cable length                  | 6.56 ft (2 m)                                                                                                   |
| Product specific application  | 2 channels triangulation<br>Control of filling<br>Detection of object on conveyor against reflective background |
| Emission                      | Infrared LED, modulated                                                                                         |
| [Sn] nominal sensing distance | 1.97...23.62 in (50...600 mm)                                                                                   |

## Complementary

|                           |                                                |
|---------------------------|------------------------------------------------|
| Enclosure material        | Glass impregnated nylon                        |
| Output type               | Solid state                                    |
| Status LED                | Output state 1 LED green)                      |
| [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 (overload and short-circuit protection) |
| Switching frequency       | > 370 Hz                                       |
| Maximum voltage drop      | <2 V (closed state)                            |
| Current consumption       | < 1.5 mA no-load                               |
| Maximum delay response    | 1.8 ms                                         |
| Maximum delay recovery    | 1.8 ms                                         |
| Net Weight                | 0.30 lb(US) (0.135 kg)                         |

## Environment

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| Product certifications                | CE                                                    |
| Ambient air temperature for operation | 32...122 °F (0...50 °C)                               |
| Ambient air temperature for storage   | -4...140 °F (-20...60 °C)                             |
| Immunity to ambient light             | 10000 Lux natural light<br>1300 lux incandescent bulb |
| IP degree of protection               | IP65 conforming to IEC 60529                          |

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 Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Ordering and shipping details

|                       |                                |
|-----------------------|--------------------------------|
| Category              | 22481 - SENSORS, PHOTOELECTRIC |
| Discount Schedule     | DS2                            |
| GTIN                  | 03389119007252                 |
| Nbr. of units in pkg. | 1                              |
| Package weight(Lbs)   | 1 lb(US) (0.45 kg)             |
| Returnability         | No                             |
| Country of origin     | FR                             |

## Packing Units

|                  |          |
|------------------|----------|
| Package 1 Height | 1.600 dm |
| Package 1 width  | 0.450 dm |
| Package 1 Length | 1.100 dm |

## 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 |
|----------|-----------|

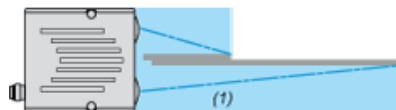
(1) Optical axis

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## Mounting and Clearance

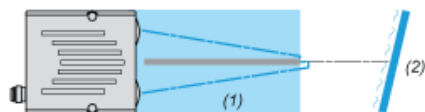
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### Two independent sensors with triangulation: A, B



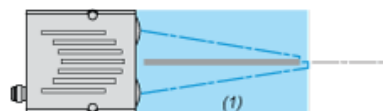
(1) Detected zones

### Immunity to reflection: A and B



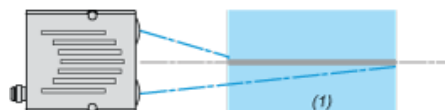
(1) Detected zones  
(2) Mirror

### Detection of contrasting objects: A or B



(1) Detected zones

### Monitoring of distance: A xor B

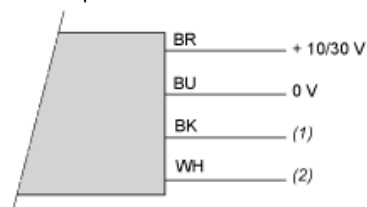


(1) Detected zones

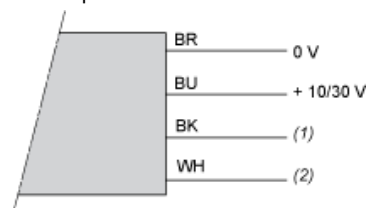
## Wiring Schemes and Outputs

### Two Independent Sensors with Triangulation: A, B

NO Output



NC Output



BN : Brown

BU : Blue

BK : Black

WH : White

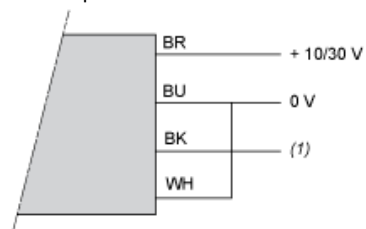
(1) Zone A output

(2) Zone B output

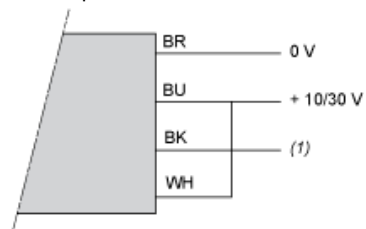
### Immunity to Reflection: A and B

Without Time Delay

NO Output



NC Output



BN : Brown

BU : Blue

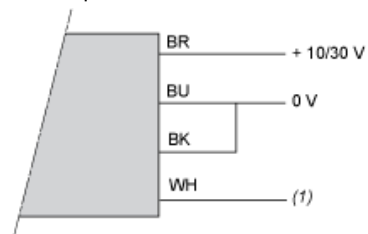
BK : Black

WH : White

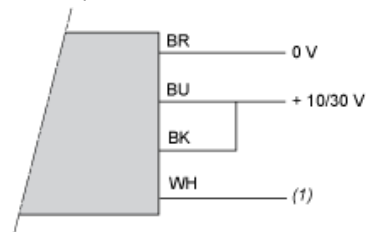
(1) Output

With 40 ms Time Delay

NO Output



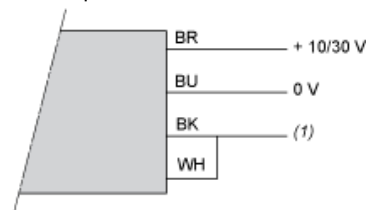
NC Output



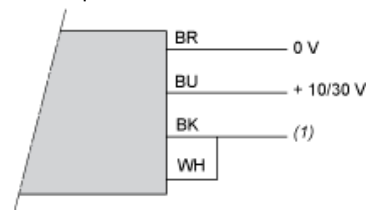
BN : Brown  
 BU : Blue  
 BK : Black  
 WH : White  
 (1) Output

## Detection of Contrasting Objects: A or B

NO Output



NC Output

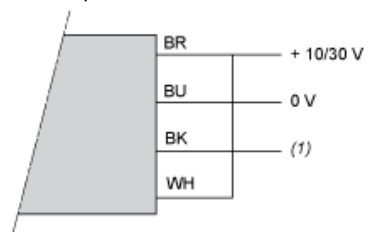


BN : Brown  
 BU : Blue  
 BK : Black  
 WH : White  
 (1) Output

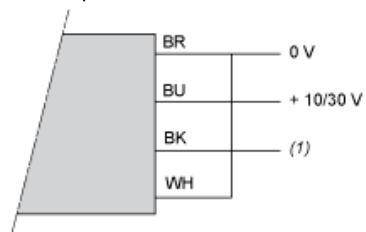
## Monitoring of Distance: A or B

Without Time Delay

NO Output



NC Output



BN : Brown

BU : Blue

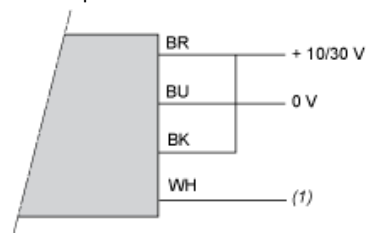
BK : Black

WH : White

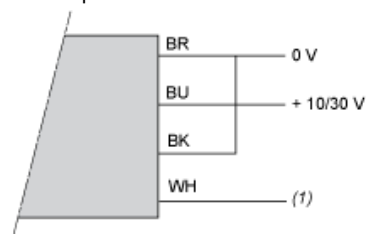
(1) Output

With 40 ms Time Delay

NO Output



NC Output



BN : Brown

BU : Blue

BK : Black

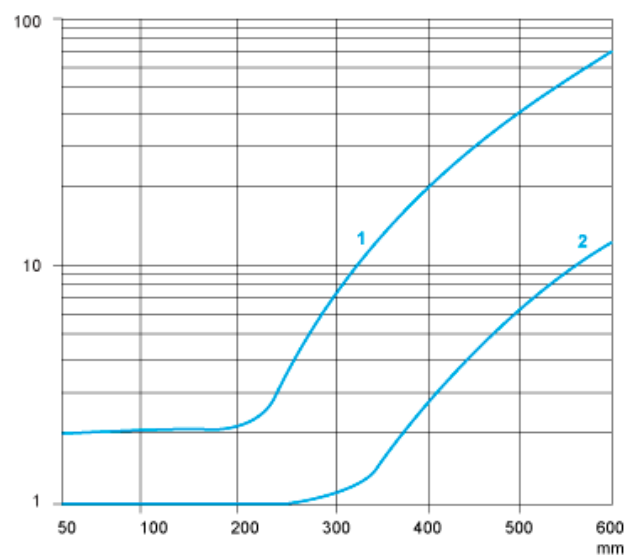
WH : White

(1) Output

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Detection Curves

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- 1 : Black 6%  
2 : Grey 18% - Distance (mm) set on 92% (Kodak 1527795)