photo-electric sensor - XUY - BGS - 2 channels - Sn 600mm - 12..24VDC - M8



#### 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	1 male connector M8, 4 pins
Product specific application	2 channels triangulation Control of filling Detection of object on conveyor against reflective background
Emission	Infrared LED, modulated
[Sn] nominal sensing distance	50600 mm

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#### Complementary

Enclosure material	Glass impregnated nylon
Output type	Solid state
Status LED	1 LED (green) for output state
[Us] rated supply voltage	1224 V DC with reverse polarity protection
Supply voltage limits	1030 V DC
Switching capacity in mA	100 mA (overload and short-circuit protection)
Switching frequency	> 370 Hz
Voltage drop	< 2 V (closed state)
Current consumption	< 1.5 mA (no-load)
Delay response	< 1.8 ms
Delay recovery	< 1.8 ms
Product weight	0.055 kg

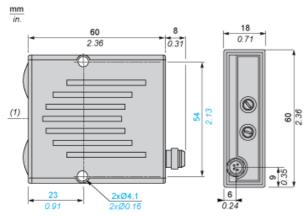
#### **Environment**

Product certifications	CE	
Ambient air temperature for operation	050 °C	
Ambient air temperature for storage	-2060 °C	
Immunity to ambient light	10000 lux with natural light 1300 lux with incandescent bulb	
IP degree of protection	IP65 conforming to IEC 60529	

#### Contractual warranty

14/	40
Warranty period	18 months
3 1	

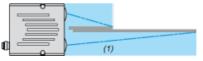
## **Dimensions**



(1) Optical axis

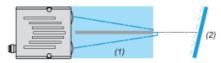
## Mounting and Clearance

## Two independent sensors with triangulation: A, B



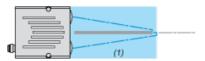
(1) Detected zones

## Immunity to reflection: A and B



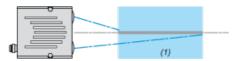
- (1) Detected zones
- (2) Mirror

## Detection of contrasting objects: A or B



(1) Detected zones

## Monitoring of distance: A xor B



(1) Detected zones

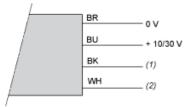
#### Wiring Schemes and Outputs

## Two Independent Sensors with Triangulation: A, B





NC Output



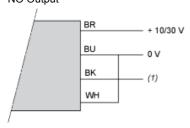
BN: Brown BU: Blue BK: Black WH: White

(1) Zone A output(2) Zone B output

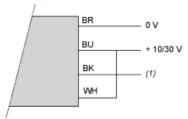
## Immunity to Reflection: A and B

#### Without Time Delay

NO Output

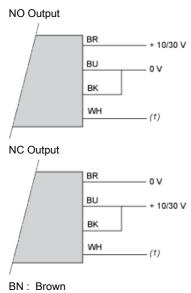


NC Output



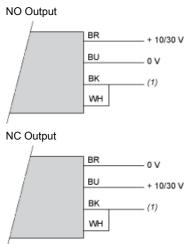
BN: Brown BU: Blue BK: Black WH: White (1) Output

With 40 ms Time Delay



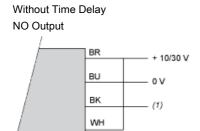
BU: Blue BK: Black WH: White (1) Output

## Detection of Contrasting Objects: A or B

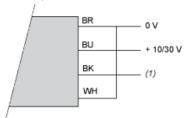


BN: Brown BU: Blue BK: Black WH: White (1) Output

## Monitoring of Distance: A or B



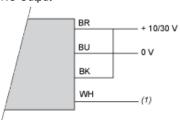
## NC Output



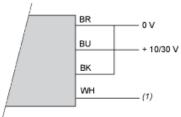
BN: Brown BU: Blue BK: Black WH: White (1) Output

#### With 40 ms Time Delay

## NO Output

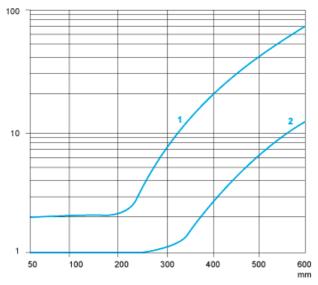


## NC Output



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

## **Detection Curves**



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