

# XUX8AKSAM12

photo-electric sensor - XUX - BGS - Sn 2m -  
12..24VDC - M12



## Main

Range of product	OsiSense XU
Series name	General purpose single mode
Electronic sensor type	Photo-electric sensor
Sensor name	XUX
Sensor design	Compact 92 x 71
Detection system	Diffuse with background suppression
Material	Plastic
Type of output signal	Discrete
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Electrical connection	1 male connector M12, 4 pins
Product specific application	Long sensing distance with high accuracy
Emission	Infrared
[Sn] nominal sensing distance	2 m

## Complementary

Enclosure material	PC
Lens material	PMMA
Output type	Solid state
Status LED	1 LED (green) for supply on 1 LED (red) for instability 1 LED (yellow) for output state
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Supply voltage limits	10...36 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	150 Hz
Voltage drop	<= 1.5 V (closed state)
Current consumption	35 mA (no-load)
Delay first up	< 200 ms
Delay response	< 3.5 ms
Delay recovery	< 2.5 ms
Product weight	0.2 kg

## Environment

product certifications	CE CSA UL
ambient air temperature for operation	-25...55 °C
ambient air temperature for storage	-40...70 °C
vibration resistance	7 gn (f = 10...55 Hz) conforming to IEC 60068-2-6
shock resistance	10 gn (duration = 11 ms) conforming to IEC 60068-2-27
IP degree of protection	IP30 (with cover open) conforming to IEC 60529 IP65 (double insulation) conforming to IEC 60529 IP67 (double insulation) conforming to IEC 60529

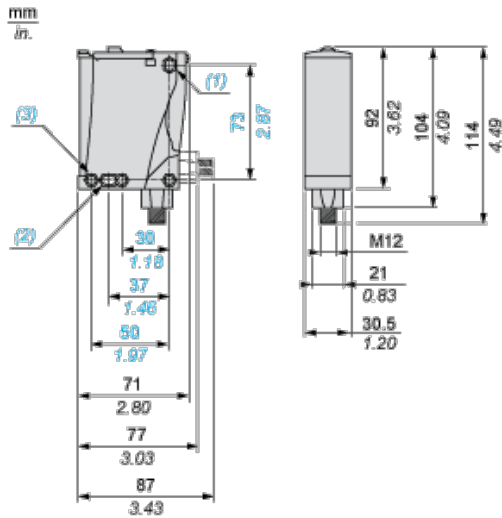
## Offer Sustainability

## Contractual warranty

Warranty period

18 months

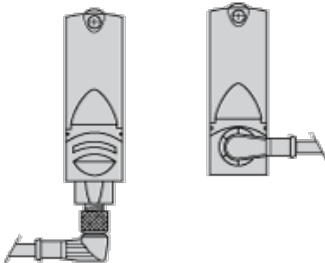
## Dimensions



- (1) Elongated hole  $\varnothing$  5.5 x 7
- (2) Elongated hole  $\varnothing$  5.5 x 9
- (3)  $\varnothing$  5.5 hole

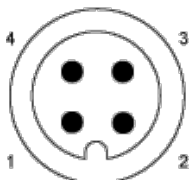
## Mounting and Clearance

### Possible Orientation of Elbowed Connector (Rear View)



## Wiring Schemes

### M12 Connector



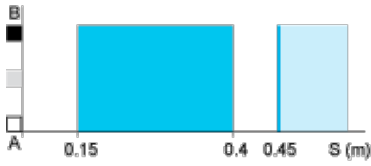
### PNP/NPN DC

M12	Terminals	
1	1	+
3	2	-
4	3	Output

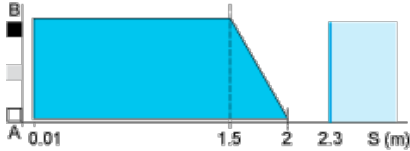
### Detection Curves

#### Variation of Usable Sensing Distance Su

Teach Mode at Minimum



Teach Mode at Maximum

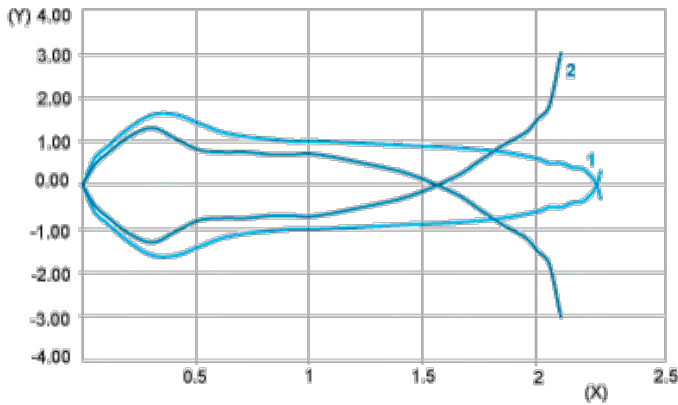


- (1)
- (2)
- (3)
- (4)
- (5)

A-B :Object reflection coefficient

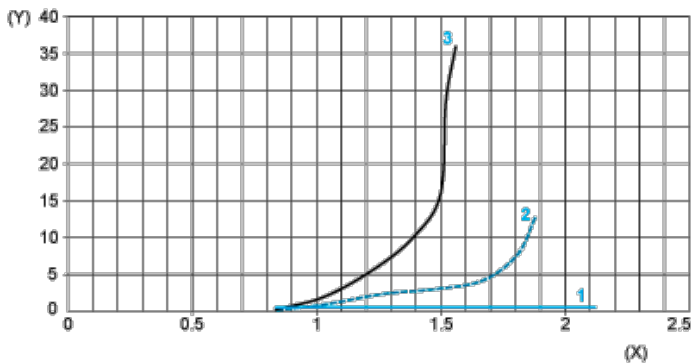
- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

#### Detection Curves



- 1 : White 90%
- 2 : Grey 18%
- (Y) Detection lobe (cm)
- (X) Object distance (m)
- Object 10 x 10 cm

#### Relative Difference in Sensing Distances According to Object Colour



- 1 : White 90%
- 2 : Grey 18%

3 : Black 6%

(Y) Relative error (%)

(X) Object distance (m)

Object 10 x 10 cm