

# Product data sheet

Specifications



Photoelectric sensors XU, XUK,  
diffuse Sn 5 m 1out IOLINK or auto  
PNP/NPN, 1out 4.20 mA

XUK8TAE2MM12

## Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	Application assembly Application material handling
Electronic sensor type	Photo-electric sensor
Sensor name	XUK
Sensor design	Compact 50 x 50
Detection system	Diffuse with background suppression
Material	Plastic
Type of output signal	Analogue + discrete
Wiring technique	5-wire
Discrete output type	IOLINK PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Analogue output range	4...20 mA
Electrical connection	1 male connector M12, 5 pins
Product specific application	Distance measurement on object
Emission	Red laser diffuse distance sensor class 1 conforming to IEC 60825-1
[Sn] nominal sensing distance	5 m diffuse distance sensor

## Complementary

Enclosure material	ABS/PC
Lens material	PMMA
Maximum sensing distance	5 m diffuse distance sensor
Output type	Analog
Add on input	External teach
Status LED	1 LED (yellow) for output state 1 LED (green/yellow) for supply on/output state
[Us] rated supply voltage	24 V DC with reverse polarity protection
Supply voltage limits	18...30 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	<= 500 Hz

<b>Maximum voltage drop</b>	<2 V
<b>Current consumption</b>	<= 60 mA no-load
<b>Maximum delay first up</b>	300 ms
<b>Maximum delay response</b>	1.2 ms
<b>Maximum delay recovery</b>	1.2 ms
<b>Setting-up</b>	Using teach button or remote teaching
<b>Depth</b>	50 mm
<b>Height</b>	50 mm
<b>Width</b>	23 mm
<b>Net weight</b>	0.035 kg

## Environment

<b>Product certifications</b>	Ecolab cULUS CE
<b>Ambient air temperature for operation</b>	-20...50 °C, UL certified -40...60 °C
<b>Ambient air temperature for storage</b>	-40...80 °C
<b>Vibration resistance</b>	7 gn, amplitude = +/- 1.5 mm (f = 10...55 Hz) conforming to IEC 60068-2-6
<b>Shock resistance</b>	30 gn (duration = 11 ms) conforming to IEC 60068-2-27
<b>IP degree of protection</b>	IP67 conforming to IEC 60529 IP69K conforming to IEC 60529 IP69K conforming to DIN 40050

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.0 cm
<b>Package 1 Width</b>	6.0 cm
<b>Package 1 Length</b>	9.0 cm
<b>Package 1 Weight</b>	56.0 g
<b>Unit Type of Package 2</b>	S01
<b>Number of Units in Package 2</b>	28
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	15.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	1.785 kg

## Offer Sustainability

<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Diisobutyl 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="#">www.P65Warnings.ca.gov</a>

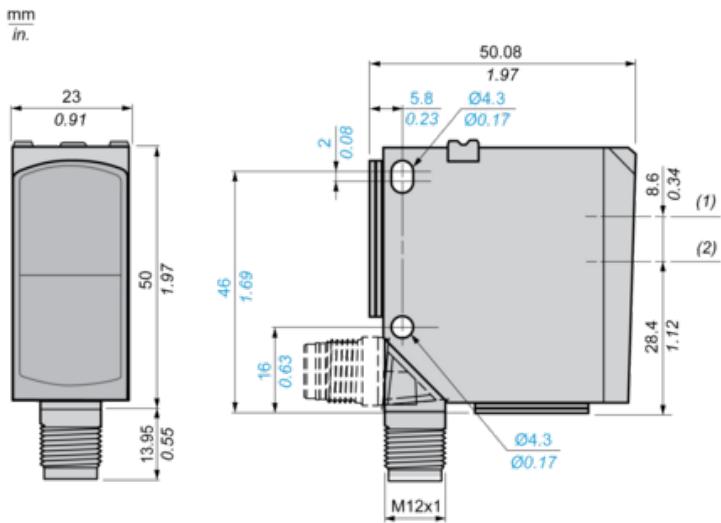
## Contractual warranty

---

Warranty

18 months

## Dimensions

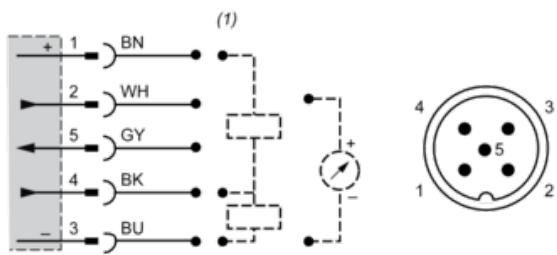


### (1) Transmitter optical axis

## (2) Receiver optical axis

### Connections and Schema

#### Connector Wiring



(1) Auto-detect

1 : + UB (BN: Brown)

2 : QA (WH: White)

3 : -UB (BU: Blue)

4 : Q/IO-Link (BK: Black)

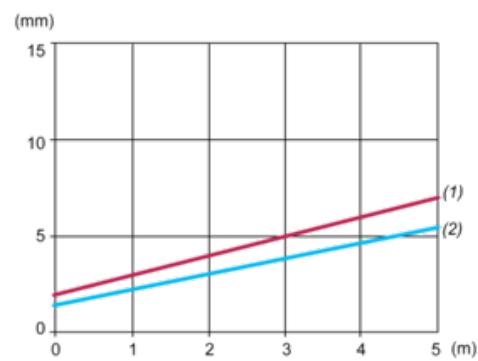
5 : IN (GY: Grey)

**Note :** In OI-Link mode, a 4-pin cable must be used.

### Curves

---

Size of light spot (typical)



(1) Vertical (y)

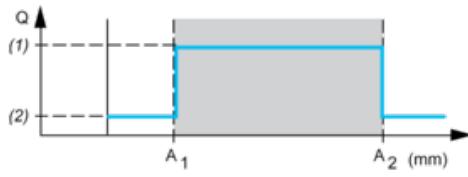
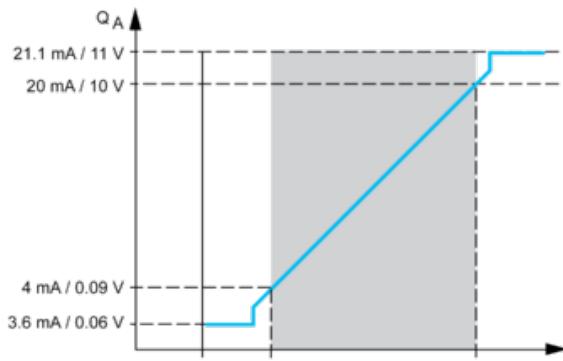
(2) Horizontal (x)

0...15 mm : Size

0...5 m : Distance

**Curves**

Output characteristic curve



**QA** : Analogue output

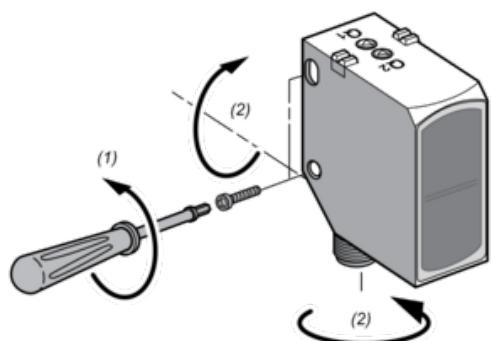
**Q** : Switching output

(1) High

(2) Low

### Mounting

---



(1) < 1,5 Nm (13 lb-in)

(2) < 1 Nm (8.85 lb-in)

### Recommended replacement(s)