

# Product data sheet

Specifications



Photoelectric sensors XU, photo electric laser sensor, XUK, background suppression, Sn 0,8 m -10...30 VDC M12

XUK8LAPPNM12

## 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	Discrete
Supply circuit type	DC
Wiring technique	4-wire
Discrete output type	PNP
Discrete output function	1 NO or 1 NC programmable
Electrical connection	1 male connector M12, 4 pins
Product specific application	-
Emission	Red laser diffuse with background suppression class 1
[Sn] nominal sensing distance	0.8 m diffuse with background suppression

## Complementary

Enclosure material	ABS/PC
Lens material	PMMA
Maximum sensing distance	0.8 m diffuse with background suppression
Output type	Solid state
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	10...30 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	<= 250 Hz

<b>Maximum voltage drop</b>	<2 V
<b>Current consumption</b>	<= 30 mA no-load
<b>Maximum delay first up</b>	300 ms
<b>Maximum delay response</b>	0.5 ms
<b>Maximum delay recovery</b>	0.5 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>	cULus Ecolab CE
<b>Ambient air temperature for operation</b>	-20...50 °C, UL certified -20...60 °C discrete output
<b>Ambient air temperature for storage</b>	-20...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 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>	2.8 cm
<b>Package 1 Width</b>	9.0 cm
<b>Package 1 Length</b>	6.0 cm
<b>Package 1 Weight</b>	52.0 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>	1.708 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>

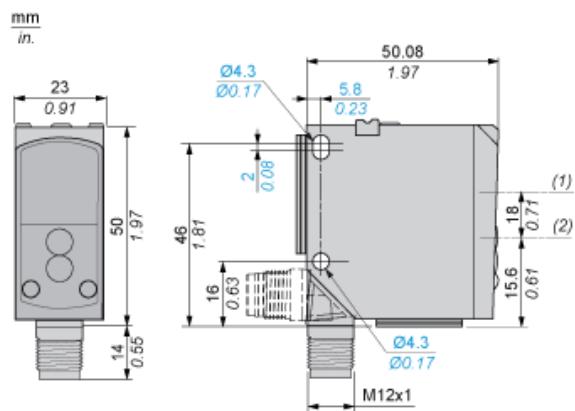
## Contractual warranty

---

Warranty

18 months

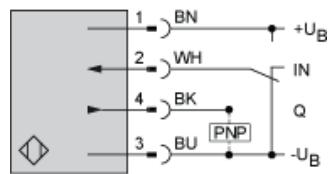
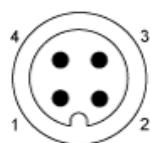
### Dimensions



(1) Receiver optical axis  
(2) Transmitter optical axis

### Wiring Schemes Using M12 Connector

---



1 : (+)  
2 : +UB = NC, -UB = NO, not connected = NO

3 : (-)

4 : Output

BN : Brown

WH : White

BU : Blue

BK : Black

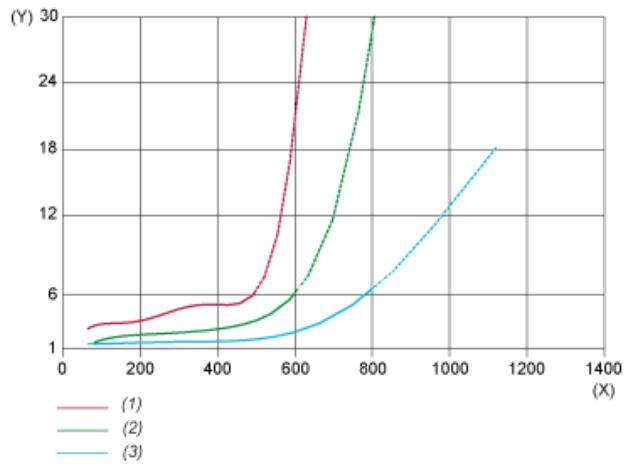
+UB : External teach

-UB : Pushbutton locking

## Curves

---

### Scanning Properties



(X) Detection distance (mm)

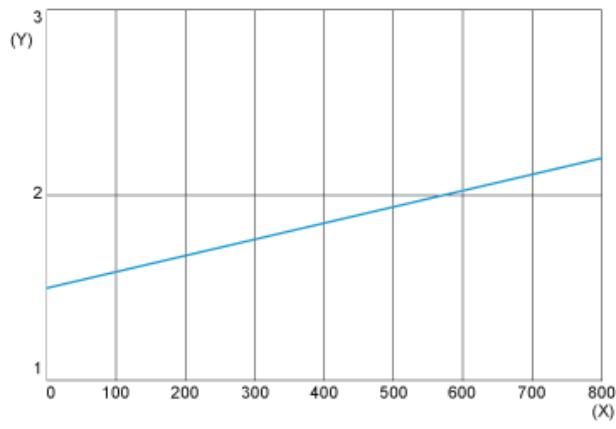
(Y) Distance (%)

(1) Black/white 6%/90%

(2) Grey/white 18%/90%

(3) White/white 90%/90%

### Size of Luminous Point



(X) Distance (mm)

(Y) Size (mm)

### Recommended replacement(s)