

# XURK1KSMM12

Photoelectric sensors XU, diffuse, Sn 9 mm,  
NO or NC, M12 connector



## Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	Application packaging
Electronic sensor type	Photo-electric sensor
Sensor name	XUR
Sensor design	Compact
Detection system	Diffuse
Emission	Red or green
[Sn] nominal sensing distance	18 Mm spot 2 x 7 mm need lens XURZ01 7 Mm spot 1 x 4 mm need lens XURZ02 9 mm spot 1.5 x 5 mm without lens
Material	Metal
Switching frequency	<= 10 kHz
Type of output signal	Discrete Analogue
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Analogue output range	0...5.5 V, DC
Electrical connection	1 male connector M12 adjustable 3 positions, 4 pins
Product specific application	Colour mark
Sale per indivisible quantity	1

## Complementary

Enclosure material	Zinc alloy
Lens material	Glass
Minimum width of mark detected	0.5 mm
Maximum inclination of reader	20 °
Maximum passing speed of object	10 m/s, minimum detected mark width: 1 mm
Output type	Solid state
Output function governance	Light or dark programmable
Add on output	With analogue output
Status LED	Output state: 1 LED (red)
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Supply voltage limits	DC
Switching capacity in mA	<= 200 mA (overload and short-circuit protection)
Maximum voltage drop	<1 V (closed state), NPN <2 V (closed state), PNP
Current consumption	<= 80 mA no-load
Time delay range	20 ms off-delay activation/deactivation by internal switch delay
Maximum delay first up	100 ms
Maximum delay response	0.05 ms
Maximum delay recovery	0.05 ms
Setting-up	Sensitivity adjustment with teach mode
Depth	58 mm
Height	82 mm

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 TWSS Holding nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Width	31 mm
Net weight	0.55 kg

## Environment

Product certifications	CE
Ambient air temperature for operation	-10...55 °C
Ambient air temperature for storage	-20...70 °C
Vibration resistance	7 gn, amplitude = +/- 0.6 mm (f = 10...55 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 11 ms) conforming to IEC 60068-2-27
IP degree of protection	IP67 conforming to IEC 60529

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.0 cm
Package 1 Width	8.5 cm
Package 1 Length	13.5 cm
Package 1 Weight	328.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	21
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.37 kg

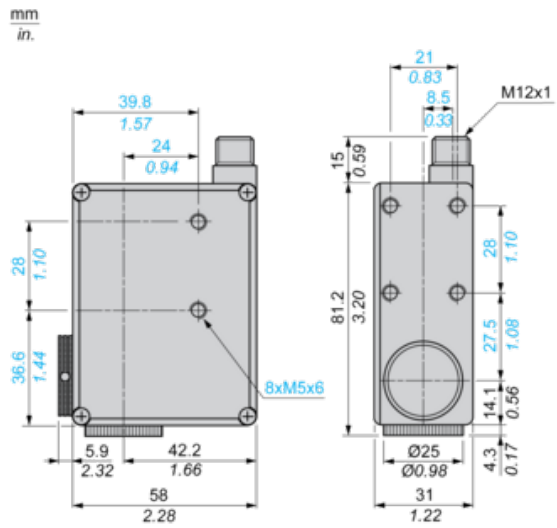
## Offer Sustainability

Toxic heavy metal free	Yes
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>
For all Reach Rohs enquiries contact us at	<a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>

## Contractual warranty

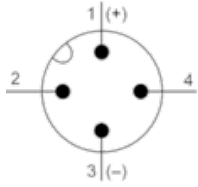
Warranty	18 months
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## Dimensions



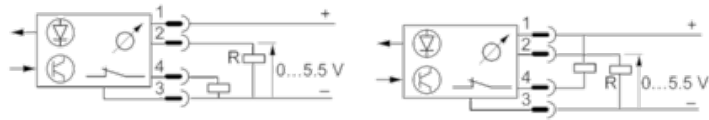
## Wiring Schemes

### Connector Scheme



- 1/Brown : 10...30 VDC
- 2/White : Adjustment input
- 3/Blue : 0 V
- 4/Black : Output

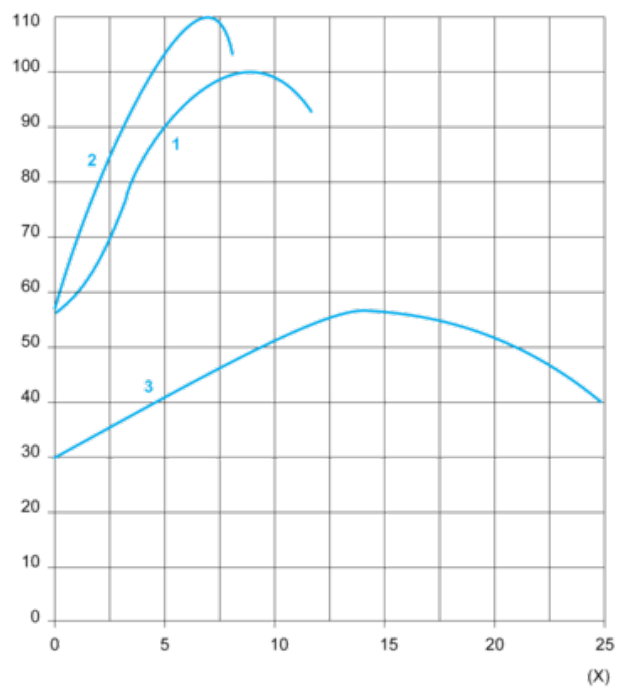
### PNP or NPN Programmable



R = 2.2 k $\Omega$

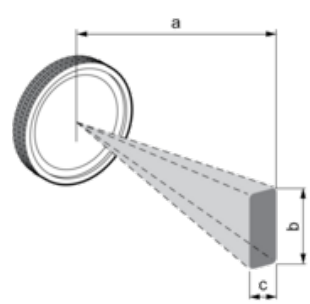
Curves

Detection Curve



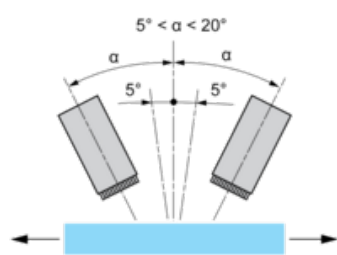
- (x) Distance (mm)  
 1 : XURK●●●●●●●●●●  
 2 : With XURZ01  
 3 : With XURZ02

Detection Zone and Spot Size (mm)



	a	b	c
	9	9	1.5
With XURZ01	18	7	2
With XURZ02	7	4	1

## Vertical Inclination



An angle of 5 to 10° from vertical is recommended for reflective or transparent surfaces Maximum vertical inclination: 20°