

Product data sheet

XUK8AKSNM12

Photoelectric sensor XUK, laser, Sn 1 m, 12...24 VDC, M12, NO/NC

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	General purpose single mode
Sensor name	XUK
Electronic sensor type	Photo-electric sensor
Sensor design	Compact 50 x 50
Kit composition	With XUZA51 bracket fixing
Product specific application	Not applicable
ETIM classification	ETIM 9 - EC002719 - Light scanner with background masking
Material	Plastic
Lens material	PMMA
Enclosure material	PC
[Sn] nominal sensing distance	1-1 m diffuse with background suppression
Maximum sensing distance	1 m diffuse with background suppression
Wiring technique	3-wire
Detection system	Diffuse with background suppression
Delay response	2 ms
Indivisible sale quantity	1

Complementary

Sensing range	> 0.3...1 m
Electrical connection	1 male connector M12, 4 pins
Supply voltage limits	10-36 V DC
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Supply circuit type	DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Maximum voltage drop	<1.5 V (closed state)
Current consumption	<= 30 mA no-load
Emission	Infrared laser, modulated diffuse with background suppression class 1
Setting-up	Sensitivity adjustment by potentiometer

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.
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Output type	Solid state
Type of output signal	Discrete
Discrete output type	PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Switching frequency	250 Hz
Status LED	1 LED (yellow) for output state, 1 LED (green) for supply
Delay first up	300 ms
Delay recovery	2 ms
Height	50 mm
Width	18 mm
Depth	50 mm
Product weight	0.035 kg

Environment

IP degree of protection	IP65 double insulation conforming to IEC 60529
Ambient air temperature for operation	-20…60 °C
Ambient air temperature for operation	-20-60 °C
Ambient air temperature for storage	-30…70 °C
Shock resistance	30 gn (duration = 11 ms) conforming to IEC 60068-2-27
Vibration resistance	7 gn, amplitude = +/- 1.5 mm (f = 10-55 Hz) conforming to IEC 60068-2-6

Offer Sustainability

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 www.P65Warnings.ca.gov

Warranty

Warranty	18 months

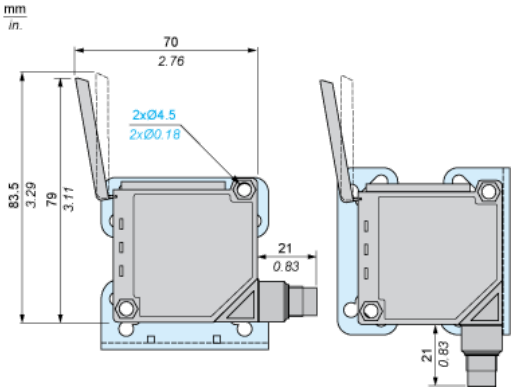
Packing Units

Country of origin	ID (Indonesia)
Unit type of package 1	PCE
Number of units in package 1	1
New Package 1 GTIN-13	3666916037522
Package 1 height	4 cm
Package 1 width	6 cm
Package 1 length	10 cm
Package 1 weight	0.07 kg
Unit type of package 2	S02

Number of units in package 2	30
New Package 2 GTIN 14	13666916037529
Package 2 height	15 cm
Package 2 width	30 cm
Package 2 length	40 cm
Package 2 weight	4.265 kg
Unit type of package 3	CAR
Number of units in package 3	1
New Package 3 GTIN 14	23666916037526
Package 3 height	4 cm
Package 3 width	6 cm
Package 3 length	10 cm
Package 3 weight	0.126 kg

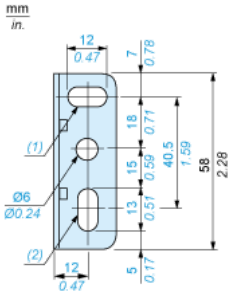
Technical Drawings

Dimensions



Dimensions

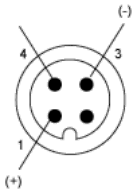
Bracket fixing



- (1) 1 elongated hole Ø 6 x 12
- (2) 1 elongated hole Ø 6 x 13

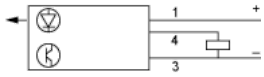
Wiring Schemes

Connector

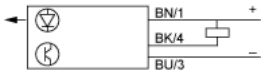


Wiring Schemes

NO/NC programming



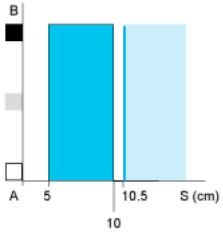
NO/NC programming



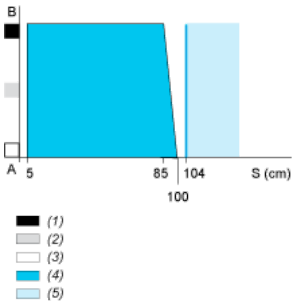
- BN : Brown
- BU : Blue
- BK : Black

Detection Curves

Variation of Usable Sensing Distance Su



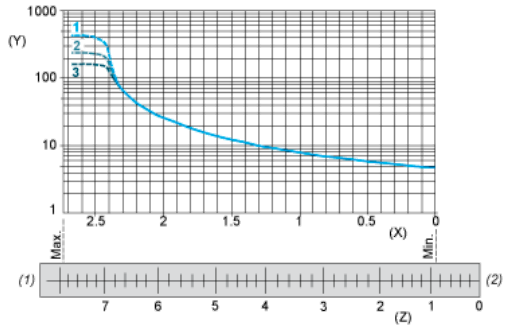
Variation of Usable Sensing Distance Su



- 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

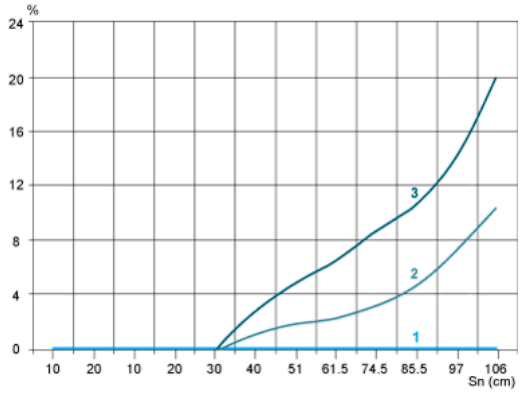
Sensing Distance Adjustment



- A-B : Object reflection coefficient
- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)
- 1 : White 90%
- 2 : Grey 18%
- 3 : Black 6%
- (Y) Sensing distance (cm)
- (X) Number of turns on potentiometer
- (Z) Setting indicator position (mm)

Detection Curves

Relative Difference in Sensing Distances According to Object Colour



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- (X) Number of turns on potentiometer
- (Z) Setting indicator position (mm)
- 1 : White 90%
- 2 : Grey 18%
- 3 : Black 6%