

Product datasheet

Specifications



photo-electric laser sensor - XUK - BGS - Sn 1m - 12..24VDC - cable 2m

XUK8AKSNL2

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	General purpose single mode
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	3-wire
Discrete output type	PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Electrical connection	Cable
Cable length	2 m
Product specific application	-
Emission	Infrared laser, modulated diffuse with background suppression class 1
[Sn] nominal sensing distance	1 m diffuse with background suppression

Complementary

Enclosure material	PC
Lens material	PMMA
Maximum sensing distance	1 m diffuse with background suppression
Minimum object diameter for detection	2 mm
Output type	Solid state
Add on output	Without, <= 50 mA with overload and short-circuit protection
Cable composition	5 x 0.34 mm²
Wire insulation material	PVC
Cable outer diameter	6 mm
Status LED	1 LED (green) for supply on

	1 LED (yellow) for output state 1 LED (red) for alignment assistance
[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	<= 250 Hz
Maximum voltage drop	<1.5 V (closed state)
Current consumption	35 mA no-load
Maximum delay first up	300 ms
Maximum delay response	2 ms
Maximum delay recovery	2 ms
Setting-up	Sensitivity adjustment by potentiometer
Depth	50 mm
Height	50 mm
Width	18 mm
Product weight	0.19 kg
Kit composition	With XUZA51 bracket fixing

Environment

Product certifications	CE
Ambient air temperature for operation	-25...55 °C
Ambient air temperature for storage	-30...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	IP65 double insulation conforming to IEC 60529

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.2 cm
Package 1 Width	9.7 cm
Package 1 Length	13.2 cm
Package 1 Weight	228 g
Unit Type of Package 2	S02
Number of Units in Package 2	12
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	3.2 kg

Offer Sustainability

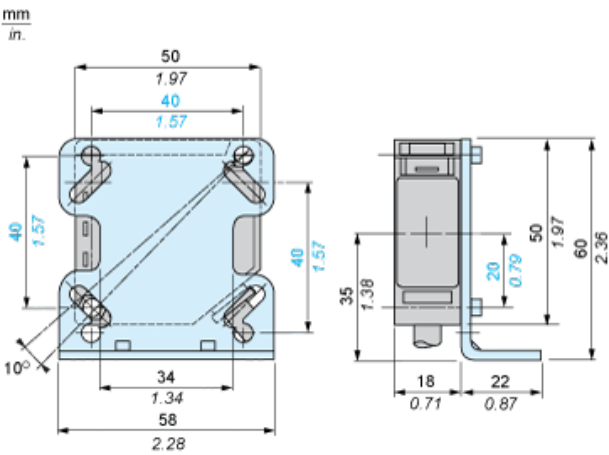
Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration

EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

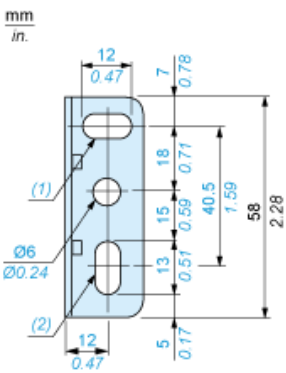
Contractual warranty

Warranty	18 months
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Dimensions



Bracket fixing

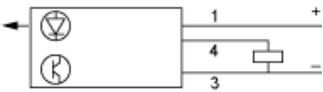


- (1) 1 elongated hole Ø 6 x 12
- (2) 1 elongated hole Ø 6 x 13

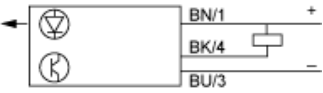
Wiring Schemes

NO/NC Programming

PNP Output



NPN Output

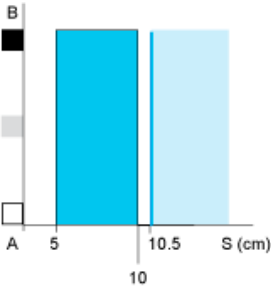


- BN : Brown
- BU : Blue
- BK : Black

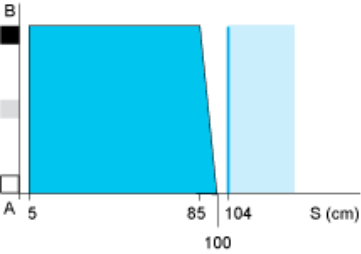
Detection Curves

Variation of Usable Sensing Distance Su

Adjustment at 10 cm



Adjustment at 1 m



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

A-B : Object reflection coefficient

(1) Black 6%

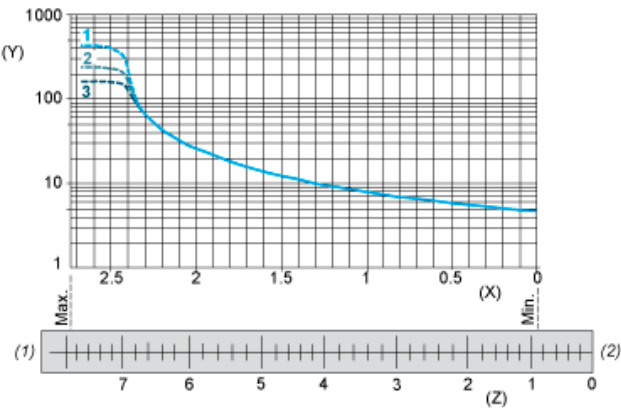
(2) Grey 18%

(3) White 90%

(4) Sensing range

(5) Non sensing zone (matt surfaces)

Sensing Distance Adjustment



1 : White 90%

2 : Grey 18%

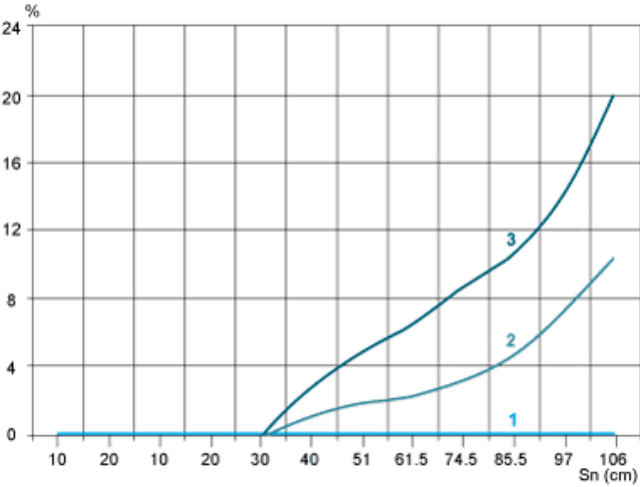
3 : Black 6%

(Y) Sensing distance (cm)

(X) Number of turns on potentiometer

(Z) Setting indicator position (mm)

Relative Difference in Sensing Distances According to Object Colour



- 1 : White 90%
- 2 : Grey 18%
- 3 : Black 6%

Recommended replacement(s)

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