Product datasheet

Specifications



Photoelectric sensors XU, XUB, multi, Sn 0...20 m, 12...24 VDC, M12

XUB0SPSNM12

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	Application food and beverage mutlimode
Electronic sensor type	Photo-electric sensor
Sensor name	XUB
Sensor design	Cylindrical M18
Detection system	Multimode
Material	Stainless steel
Line of sight type	Axial
Type of output signal	Discrete
Supply circuit type	DC
Wiring technique	3-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	Infrared diffuse Infrared diffuse with background suppression Infrared thru beam Red polarised reflex
[Sn] nominal sensing distance	3 m polarised reflex need reflector XUZC50 20 m thru beam need a transmitter XUB0SKSNM12T 0.12 m diffuse with background suppression 0.3 m diffuse

Complementary

Enclosure material	Stainless steel : 304 CU
Lens material	PMMA
Maximum sensing distance	0.12 m diffuse with background suppression 0.4 m diffuse 30 m thru beam 4.5 m polarised reflex
Output type	Solid state
Status LED	1 LED (green) for output state 1 LED (red) for supply on 1 LED (yellow) for stability

Disclaimer: 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

[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	200 ms
Maximum delay response	2 ms
Maximum delay recovery	2 ms
Setting-up	Self-training
Diameter	18 mm
Length	78 mm
Net weight	0.055 kg

Environment

Product certifications	CSA UL CE
Ambient air temperature for operation	-25…55 °C
Ambient air temperature for storage	-40…70 °C
Vibration resistance	7 gn, amplitude = +/- 1.5 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	IP65 double insulation conforming to IEC 60529 IP67 double insulation conforming to IEC 60529 IP69K double insulation conforming to DIN 40050

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	73.0 g
Package 1 Height	4.4 cm
Package 1 width	6.6 cm
Package 1 Length	9.2 cm
Unit Type of Package 2	S01
Number of Units in Package 2	22
Package 2 Weight	1.79 kg
Package 2 Height	15 cm
Package 2 width	15 cm
Package 2 Length	40 cm

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

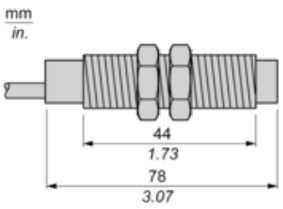
Contractual warranty

Warranty	18 months

Product datasheet XUB0SPSNM12

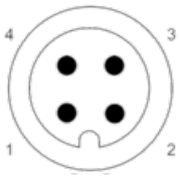
Dimensions Drawings

Dimensions



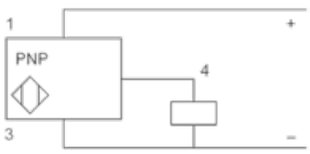
Wiring Schemes

M12 Connector



3 : (-)
1 : (+)
4 : OUT/Output
2 : Not connected

PNP

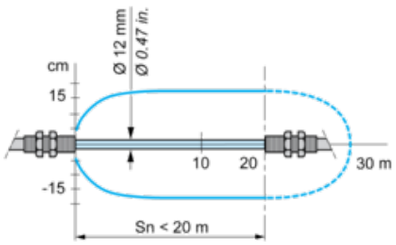


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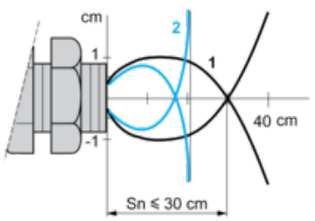
Performance Curves

Detection Curves

With Thru-beam Accessory (Thru-beam)



Without Accessory (Diffuse)

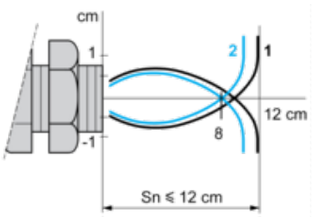


1 : White 90%

2 : Grey 18%

Object: 10 x 10 cm

Without Accessory (Diffuse with Background. Suppression

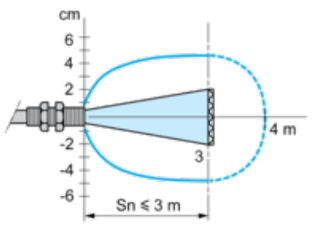


1 : White 90%

2 : Grey 18%

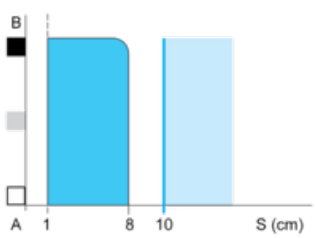
Object: 10 x 10 cm

With Reflector XUZC50 (Polarised Reflex)

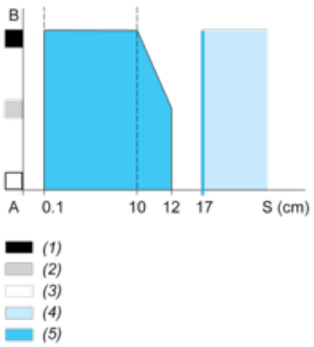


Variation of Usable Sensing Distance Su (Without Accessory, with Adjustable Background Suppression)

Teach mode at minimum



Teach mode at maximum



A-B : Object reflection coefficient

(1) Black 6%

(2) Grey 18%

(3) White 90%

(4) Sensing range

(5) Non sensing zone (matt surfaces)