XUB0APSNM12

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

Green Premium™ Product

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	General purpose multimode
Electronic sensor type	Photo-electric sensor
Sensor name	XUB
Sensor design	Cylindrical M18
Detection system	Multimode
Material	Plastic
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 XUB0AKSNM12T 0.12 M diffuse with background suppression 0.3 m diffuse

Complementary

Enclosure material	PBT
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
Add on output	Without
Status LED	1 LED (green) for supply 1 LED (red) for instability 1 LED (yellow) for output state
[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-teaching
Diameter	18 mm

Length	78 mm
Product weight	0.045 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 Height	4.2 cm
Package 1 Width	6.7 cm
Package 1 Length	9.7 cm
Package 1 Weight	42.9 g
Unit Type of Package 2	S01
Number of Units in Package 2	22
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	1.305 kg
Unit Type of Package 3	P06
Number of Units in Package 3	704
Package 3 Height	75.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	48.116 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
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

Contractual warranty

Warranty	18 months

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Dimensions

mm
in.

44
1.73
78
3.07
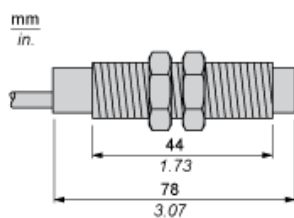
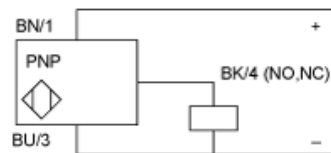## Wiring Schemes

M12 Connector
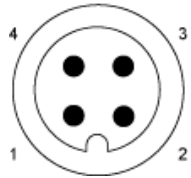
1 : (+)
2 : Beam break input (1)
3 : (-)
4 : OUT/Output
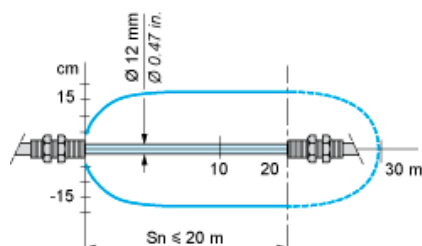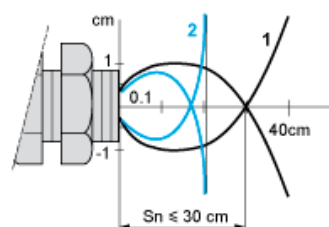(1) Beam break input on thru-beam transmitter only

Receiver, PNP Output

BN : Brown
BU : Blue
BK : Black

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Detection Curves

With Thru-beam Accessory (Thru-beam)

Without Accessory (Diffuse)

1 : White 90%
2 : Grey 18%
Object 10 x 10 cm
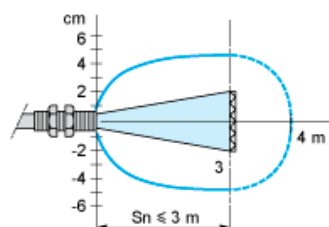
Without Accessory (Diffuse with background suppression)
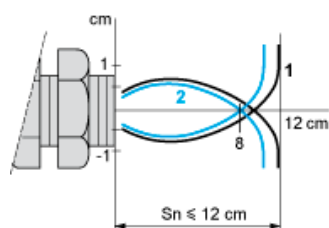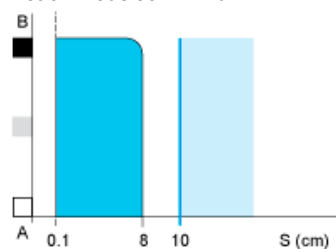

1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

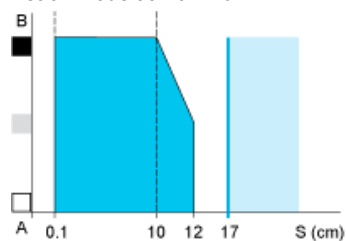### With reflector (Polarised reflex)

With reflector XUZC50

Variation of Usable Sensing Distance Su (Without accessory, with adjustable background suppression)
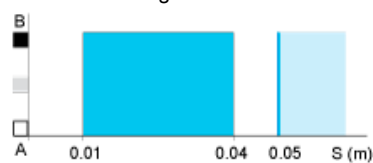
Teach Mode at Minimum

Teach Mode at Maximum

- ■ (1)
- ▨ (2)
- ☐ (3)
- ■ (4)
- ☐ (5)

A-B : Object reflection coefficient
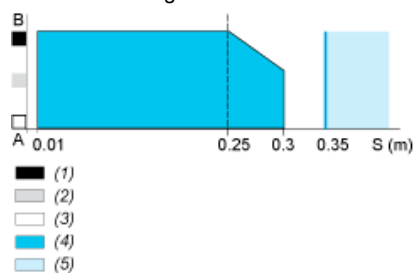(1)   Black 6%
(2)   Grey 18%
(3)   White 90%
(4)   Sensing range
(5)   Non sensing zone (matt surfaces)

Variation of Usable Sensing Distance

Minimum Setting

Maximum Setting

- ■ (1)
- ▨ (2)
- ☐ (3)
- ■ (4)
- ☐ (5)

A-B : Object reflection coefficient
(1)   Black 6%
(2)   Grey 18%
(3)   White 90%
(4)   Sensing range
(5)   Non sensing zone (matt surfaces)

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