

Product data sheet

Specifications



Photoelectric sensors XU, XUB, multi, Sn 0...20 m, 12...24 VDC, cable 2 m

XUB0BNSNL2

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	Metal
Line of sight type	Axial
Type of output signal	Discrete
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	NPN
Discrete output function	1 NO or 1 NC programmable
Electrical connection	Cable
Cable length	2 m
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 XUB0BKSNL2T 0.12 m diffuse with background suppression 0.3 m diffuse

Complementary

Enclosure material	Nickel plated brass
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

Length	100 mm
Insulation material	PvR
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	64 mm
Product weight	0.105 kg

Environment

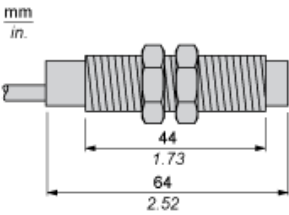
Product certifications	UL CE CSA
Ambient air temperature for operation	Ambient air temperature for operp

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

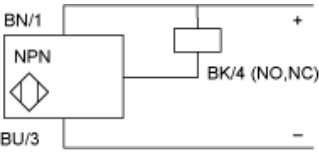
Warranty	18 months
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Dimensions



Connections and Schemes

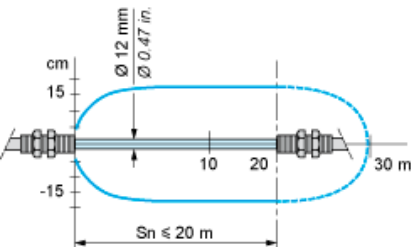
NPN



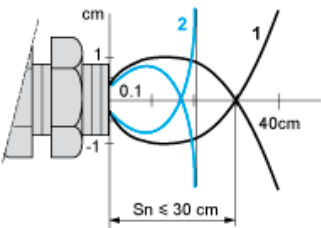
- BN : Brown
- BU : Blue
- BK : Black

Detection Curves

With Thru-beam Accessory (Thru-beam)

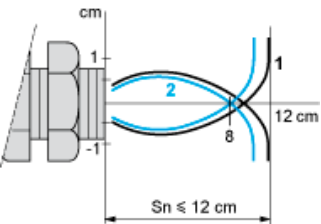


Without Accessory (Diffuse)



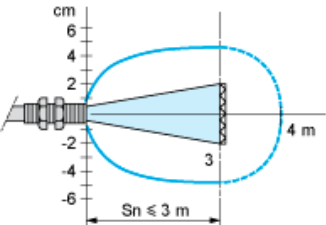
- 1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)



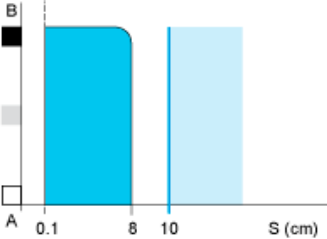
- 1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

With reflector (Polarised reflex)

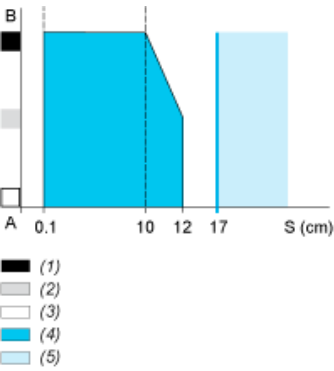


With reflector XUZC50

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



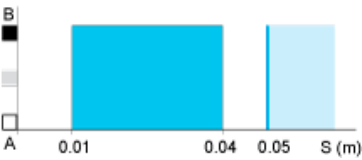
Teach Mode at Maximum



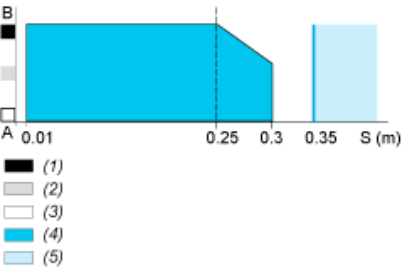
- A-B : Object reflection coefficient
- (1) Black 6%
 - (2) Grey 18%
 - (3) White 90%
 - (4) Sensing range
 - (5) Non sensing zone (matt surfaces)

Variation of Usable Sensing Distance

Minimum Setting



Maximum Setting



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

Recommended replacement(s)