

Product data sheet

Specifications



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

XUB0BPSNL2

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	PNP
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
Wire Insulation Material	PvR

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

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
Net Weight	0.105 kg

Environment

Product Certifications	CE CSA UL
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

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	124.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	22
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.198 kg

Contractual warranty

Warranty	18 months
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Sustainability

Green Premium™ label is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.


[Learn more about Green Premium >](#)


[Guide to assess a product’s sustainability >](#)



RoHS/REACH

Well-being performance

 Mercury Free

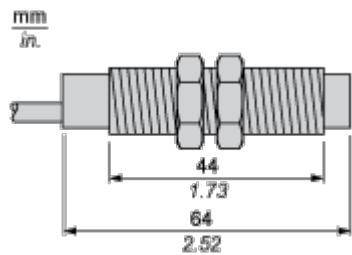
 Rohs Exemption Information [Yes](#)

Certifications & Standards

Reach Regulation	REACH Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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 Diisodecyl 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

Dimensions Drawings

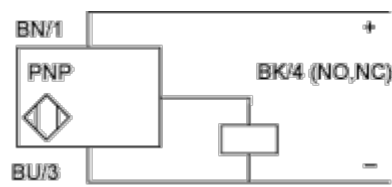
Dimensions



Connections and Schema

Connections and Schemes

PNP



BN : Brown

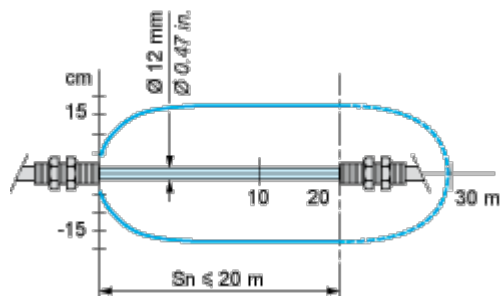
BU : Blue

BK : Black

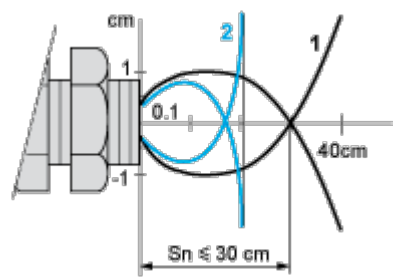
Performance Curves

Detection Curves

With Thru-beam Accessory (Thru-beam)



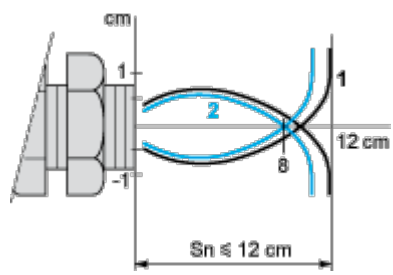
Without Accessory (Diffuse)



- 1 : White 90%
- 2 : Grey 18%

Object 10 x 10 cm

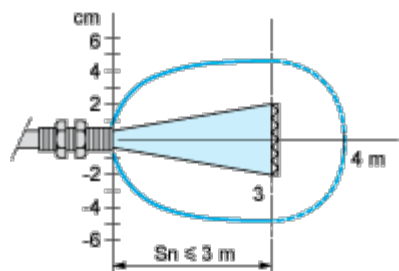
Without Accessory (Diffuse with background suppression)



- 1 : White 90%
- 2 : Grey 18%

Object 10 x 10 cm

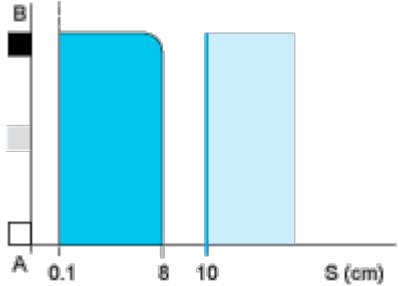
With reflector (Polarised reflex)



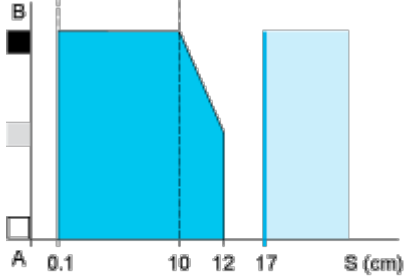
With reflector XUZC50

Variation of Usable Sensing Distance Su (Without accessory, with adjustable background suppression)

Teach Mode at Minimum



Teach Mode at Maximum



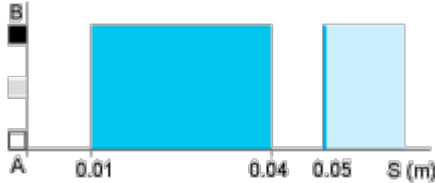
- (1) Black
- (2) Grey
- (3) White
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

A-B : Object reflection coefficient

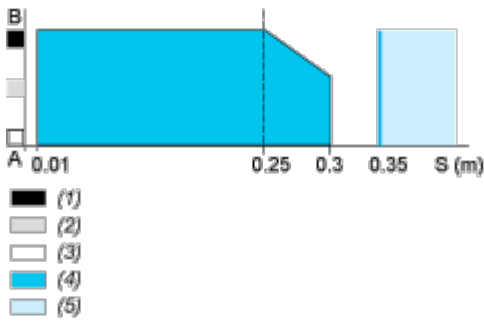
- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

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)