Product data sheet

Specifications

Photoelectric sensors XU, XU2, thru beam, high gain, Sn 50 m, 12...24 VDC, M12

XU2M18AP20D

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	Application material handling
Electronic sensor type	Photo-electric sensor
Sensor name	XU2
Sensor design	Cylindrical M18
Detection system	Thru beam
Material	Metal
Line of sight type	Axial
Type of output signal	Discrete Analogue
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP
Discrete output function	1 NO
Analogue output range	4...20 mA
Electrical connection	1 male connector M12, 4 pins
Product specific application	-
Emission	Infrared thru beam
[Sn] nominal sensing distance	50 m thru beam

Complementary

Enclosure material	Nickel plated brass
Lens material	PMMA
Maximum sensing distance	70 m
Output type	Solid state
Add on output	With analogue output
Add on input	Breaking test (transmitter)
Status LED	1 LED (green) for supply on 1 LED (yellow) for operation
[Us] rated supply voltage	12...24 V DC with reverse polarity protection

Supply voltage limits	10…30 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	<= 30 Hz
Maximum voltage drop	<1.5 V (closed state)
Current consumption	<= 55 mA no-load
Maximum delay first up	50 ms
Maximum delay response	15 ms
Maximum delay recovery	15 ms
Setting-up	Sensitivity adjustment
Diameter	18 mm
Length	95 mm
Net weight	0.155 kg
Kit composition	Transmitter + receiver

Environment

Product certifications	CSA CE UL
Ambient air temperature for operation	-25…55 °C
Ambient air temperature for storage	-40…70 °C
Vibration resistance	25 gn, amplitude = +/- 2 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	IP67 conforming to IEC 60529

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	160.0 g
Package 1 Height	4.1 cm
Package 1 width	9.4 cm
Package 1 Length	13 cm
Unit Type of Package 2	S02
Number of Units in Package 2	22
Package 2 Weight	3.843 kg
Package 2 Height	15 cm
Package 2 width	30 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

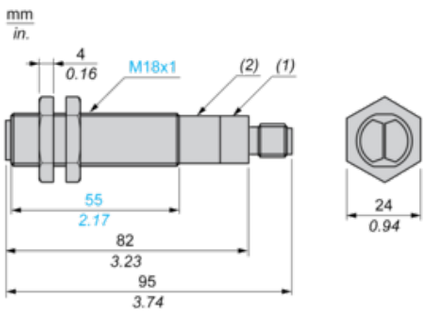
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
California proposition 65	WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, 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

Dimensions

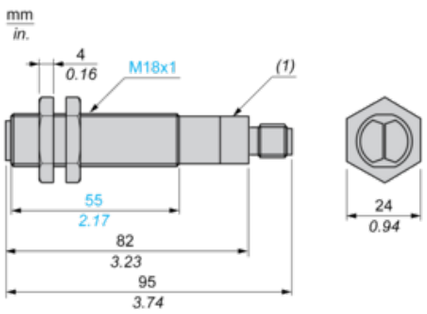
Receiver dimensions



(1) LEDs

(2) Potentiometer

Transmitter dimensions



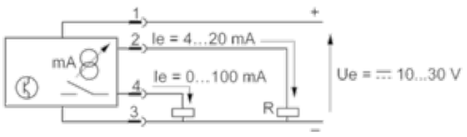
(1) LEDs

Mounting and Clearance

Fixing nut tightening torque: 15 N.m
Connector tightening torque: 2 N.m

Wiring Schemes

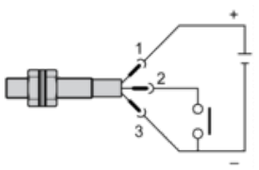
Receiver



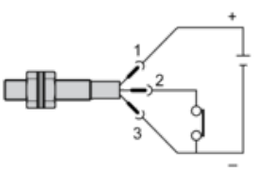
R max. < 800 Ω (Ue = 24 V), < 300 Ω (Ue = 12 V)

Beam Break Test (only on Transmitter)

Beam made

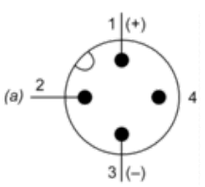


Beam broken



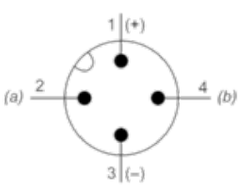
Sensor Connector Pin View

Transmitter



(a) Test

Receiver

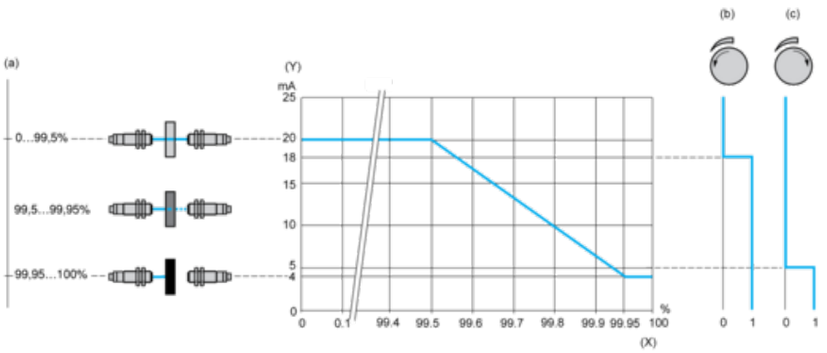


(a) Analogue output

(b) Solid-state output

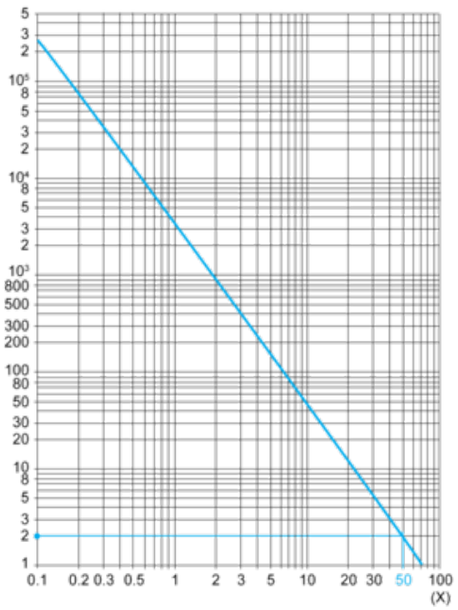
Operation, Settings

Type, opacity of objectAnalogue output curveSwitching level of digital solid-statePNP output



(a) Degree of opacity of object
(b) Potentiometer set at minimum
(c) Potentiometer set at maximum
(y) Output current
(x) Degree of opacity of object

Type, opacity of objectAnalogue output curveSwitching level of digital solid-statePNP output



(a) Degree of opacity of object
(b) Potentiometer set at minimum
(c) Potentiometer set at maximum
(y) Output current
(x) Degree of opacity of object