

Product data sheet

Specifications



Photoelectric sensors XU, miniature, background suppression, Smax=0.30 m, NPN, cable 2 m

XUM8ANXBL2

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	General purpose single mode
Electronic sensor type	Photo-electric sensor
Sensor name	XUM
Sensor design	Miniature
Detection system	Diffuse with background suppression
Material	Plastic
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
Emission	Red LED diffuse with background suppression
[Sn] nominal sensing distance	0.20 m

Complementary

Enclosure material	PBT
Lens material	PMMA
Maximum sensing distance	0.30 m
Output type	Solid state
Wire insulation material	PVC
Status LED	Stability: 1 LED (green) Output state: 1 LED (orange)
[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 with overload and short-circuit protection
Switching frequency	<= 1000 Hz

Maximum voltage drop	<2 V (closed state)
Current consumption	30 mA no-load
Maximum delay first up	100 ms
Maximum delay response	0.5 ms
Maximum delay recovery	0.5 ms
Setting-up	Sensitivity by potentiometer
Depth	20 mm
Height	33 mm
Width	10 mm
Net weight	0.063 kg

Environment

Product certifications	cULus CE UKCA
Ambient air temperature for operation	-30...55 °C
Ambient air temperature for storage	-40...70 °C
Relative humidity	35...95 %
Immunity to ambient light	40000 lux sunlight 10000 lux incandescent light
Vibration resistance	9 gn, amplitude = +/- 1.5 mm (f = 10...500 Hz)for every axis conforming to IEC 60068-2-6
Shock resistance	100 gn (duration = 11 ms) for for every axis conforming to IEC 60068-2-27
IP degree of protection	IP67 conforming to IEC 60529 IP65 conforming to IEC 60529

Packing Units

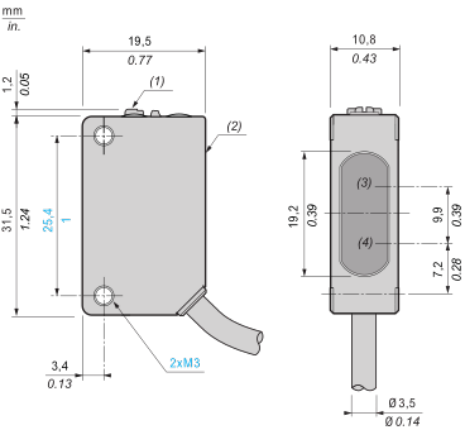
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.5 cm
Package 1 Width	10.0 cm
Package 1 Length	18.0 cm
Package 1 Weight	50.0 g
Unit Type of Package 2	S04
Number of Units in Package 2	160
Package 2 Height	30.0 cm
Package 2 Width	40.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	9.885 kg

Offer Sustainability

REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration

RoHS exemption information	Yes
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

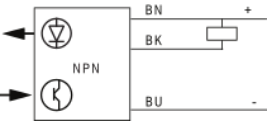
Dimensions



- (1) : Setting potentiometer (sensitivity)
- (2) : Setting potentiometer (output)
- (3) : Reception
- (4) : Transmission

Connection and schema

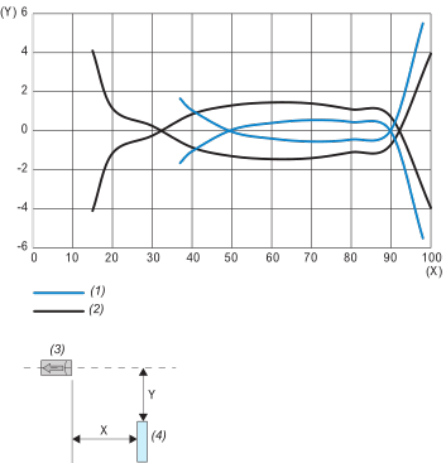
Wiring diagram



BN (Brown) : (+)
BK (Black) : OUT/Output
BU (Blue) : (-)

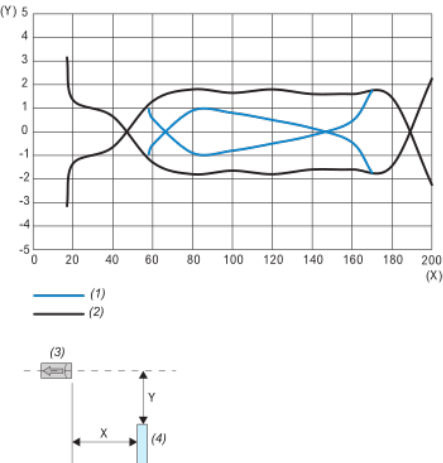
Detection curves

Lateral displacement (preset 100 mm)



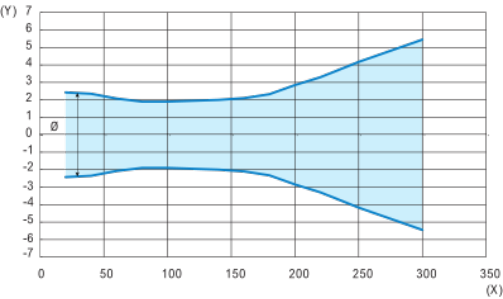
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

Lateral displacement (preset 200 mm)



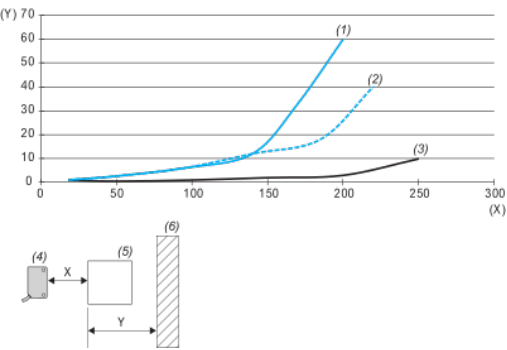
- (1) : Black paper 6 % remission
- (2) : White paper 90 % remission
- (3) : Sensor
- (4) : Object (200 mm square white and black mat paper)
- (X) : Sensing distance (mm)
- (Y) : Lateral displacement (mm)

Light beam diameter



- (X) : Sensing distance (mm)
- (Y) : Light beam diameter (mm)

Minimum distance between the object to detect and white background



- (1) : Min. distance black object (6%)/white background (90%) (mm)
- (2) : Min. distance grey object (18%)/white background (90%) (mm)
- (3) : Min. distance white object (90%)/white background (90%) (mm)
- (4) : Sensor
- (5) : Object
- (6) : Background
- (X) : Distance sensor/object (mm)
- (Y) : Min. distance object/background (mm)

Recommended replacement(s)