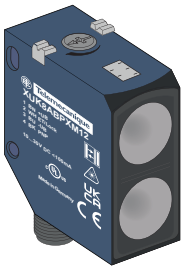
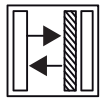
XUK8ABPXM12 (50 x 23 x 50)

Photo-electric sensor - Compact design

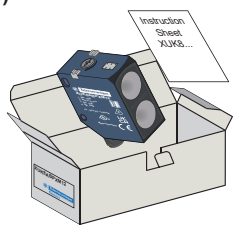


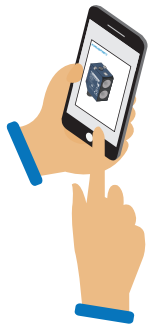
ECOLAB

Background suppression (BGS)



Package Content *(Example)*





Scan the code to access this Instruction Sheet in different languages and all the product information or you can visit our website at: **www.tesensors.com**

We welcome your comments about this document. You can reach us through the customer support page on your local website.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before servicing equipment.
- Do not connect this device to AC power.
- The power voltage must not exceed the rated range.

Failure to follow these instructions will result in death or serious injury.

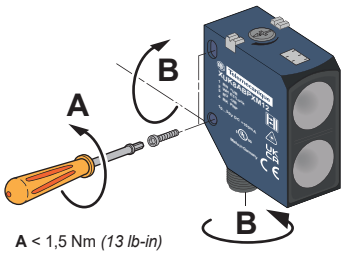
WARNING

IMPROPER SETUP OR INSTALLATION

- This equipment must only be installed and serviced by qualified personnel.
- Read, understand, and follow the compliance below, before installing the XU Photo-electric sensor.
- Do not tamper with or make alterations on the unit.
- Comply with the wiring and mounting instructions.
- Check the connections and fastening during maintenance operations.
- The proper functioning of the XU Photo-electric sensor and its operating line must be checked regularly and according to the application (for example number of operations, level of environmental pollution, etc.).

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Mounting and tightening torques



A < 1,5 Nm *(13 lb-in)*

B < 1 Nm *(8.85 lb-in)*

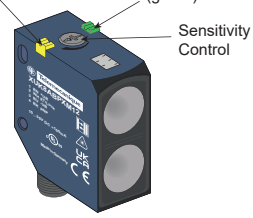
CAUTION

DEGREE OF PROTECTION DETERIORATION

Do not apply excessive torque on the sensor during the installation process.

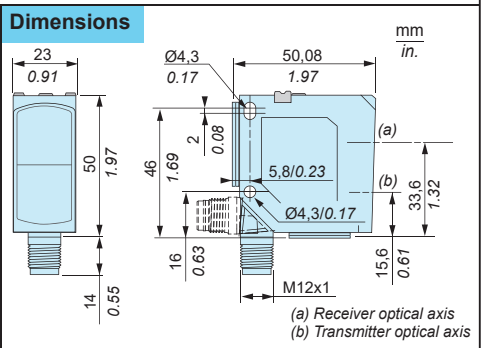
Failure to follow these instructions can result in injury or equipment damage.

LEDs and Setting



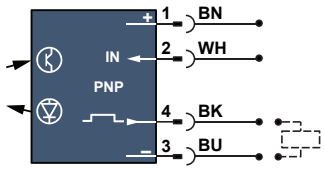
(1): If Double flash = Contamination

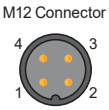
Dimensions



(a) Receiver optical axis
(b) Transmitter optical axis

Wiring diagrams



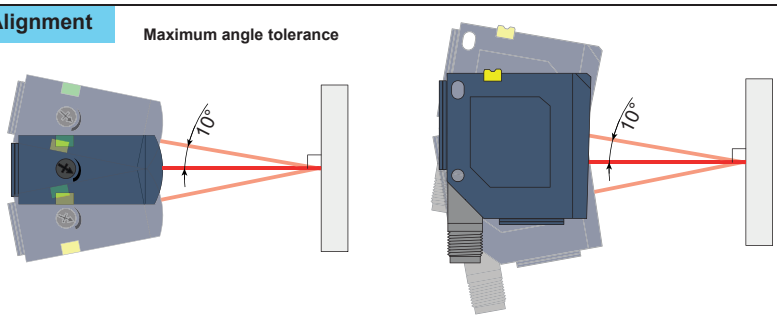


1: (+)
2: IN
3: (-)
4: Q

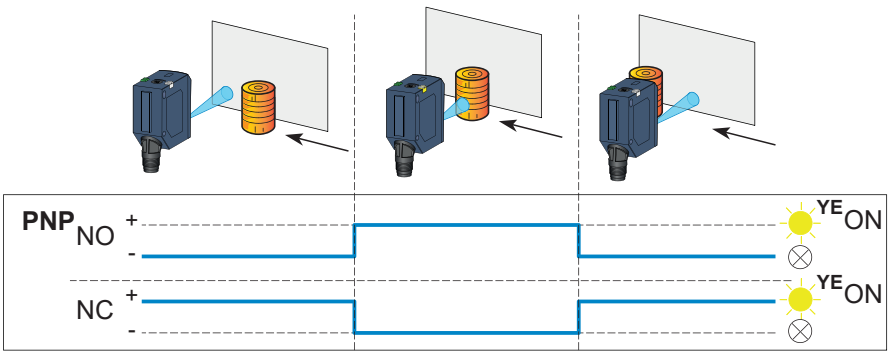
BN	Brown
WH	White
BK	Black
BU	Blue

Alignment

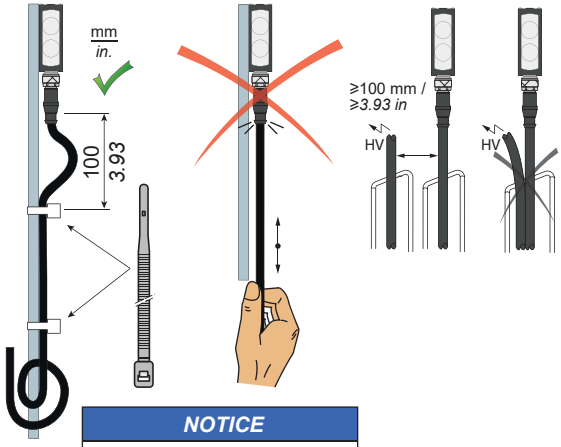
Maximum angle tolerance



Switching mode for object



Mounting, wiring and maintenance precautions

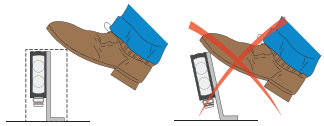


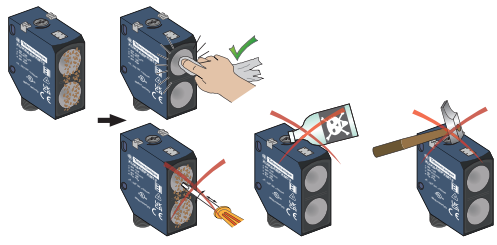
NOTICE

REDUCTION OF SERVICE LIFE

Do not pull on the sensor cable.

Failure to follow these instructions can result in equipment damage.





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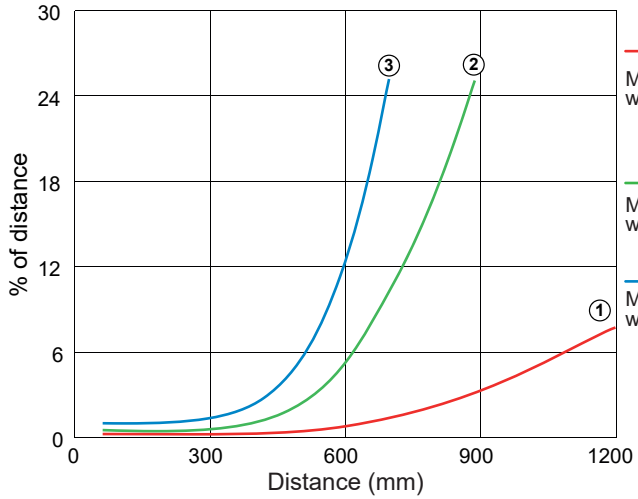
Telemecanique Sensors

XUK8ABPXM12 (50 x 23 x 50)

Detection curves

Scanning properties



1

Min distance white object (90%) / white background (90%) (mm)

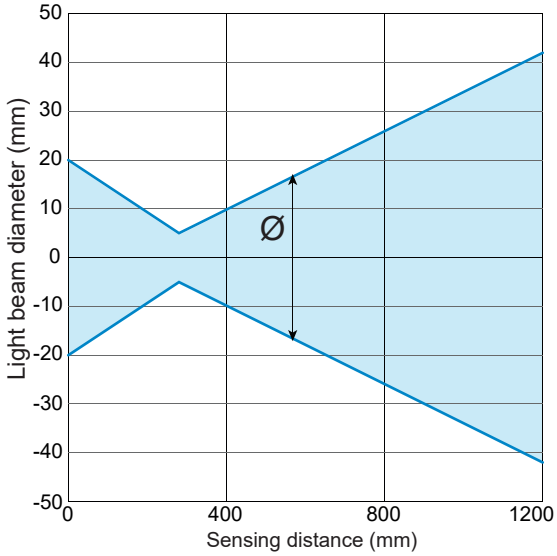
2

Min distance grey object (18%) / white background (90%) (mm)

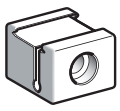
3

Min distance black object (6%) / white background (90%) (mm)

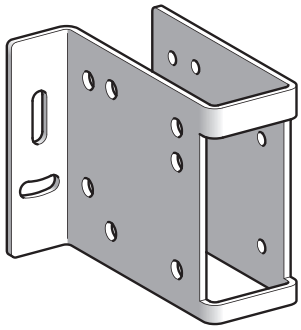
Light beam diameter



Accessories

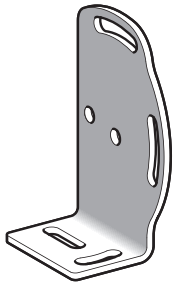


XUZASW001



XUZASK001

XUZASW002

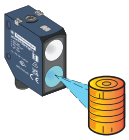


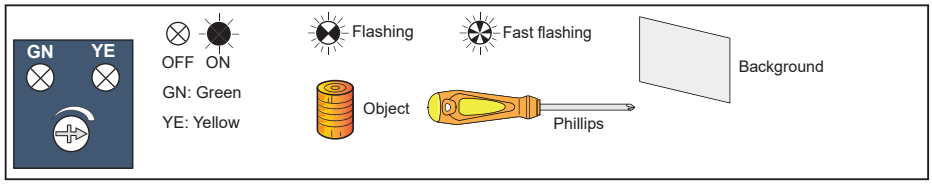
XUZA51S

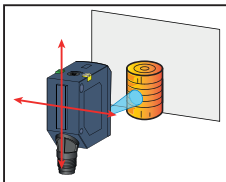
Telemecanique Sensors

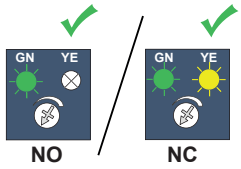
XUK8ABPXM12 (50 x 23 x 50)

Setting



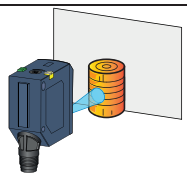


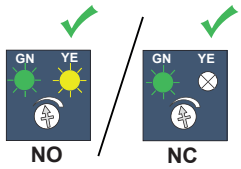




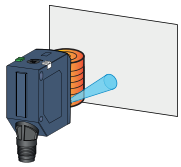
A

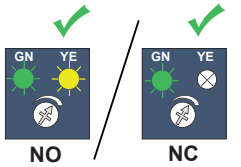
Scanning distance setting
Turn potentiometer at the minimum value
Position object / align sensor to object.



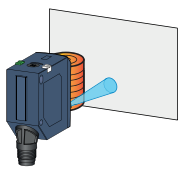


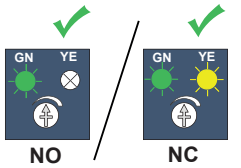
Set the object point
Turn potentiometer clockwise until green LED ON & yellow LED ON (NO) / OFF (NC)



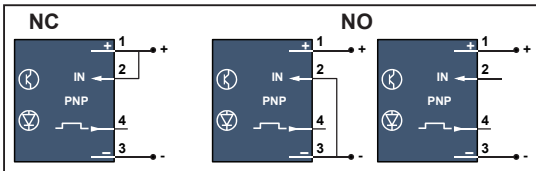


Set the background point
Remove the object
Turn potentiometer clockwise until green LED ON & yellow LED ON (NO) / OFF (NC)





Final setting
Turn potentiometer anti-clockwise between the object point and the background point until green LED ON & yellow LED OFF (NO) / ON (NC)



B

NO/NC Setting
Setting via control input IN (PIN 2)
+ = NC
- = NO
Open = NO

Characteristics

Certification		CE - UKCA - cULus - Ecolab
Sensing distance	White	3...1200 mm / *0.12…47.2 in*
	Grey	5...750 mm / *0.2…29.5 in*
	Black	10...600 mm / *0.39…23.6 in*
Sensing distance setting		Potentiometer
Color of detection light beam		LED, blue, 450 nm - Risk group 2 according to **EN62471**
Spot size of the light beam		See light beam diameter curve
Output type		PNP (NO or NC)
Current consumption		≤ 30 mA
Switching capacity		≤ 100 mA
Switching frequency		≤ 600 Hz
First-up delay		< 300 ms
Response time		830 µs max.
Recovery time		300 ms max.
Ambient Temperature	Operating	- 20...+60 °C *(-4...+140 °F)* - UL: max. +45 °C / *113°F*
	Storage	- 20...+80 °C *(-4...+176 °F)*
Power Voltage		Rated operational voltage: 12...24 Vdc Operating range: 10...30 Vdc (including ripple p-p 10% maximum)
Product Protection		Power supply : Reverse polarity protection Output: Short circuit protection
Protection against electric shocks		⧈ Protection class II
Degree of protection		IP67 conforming to **IEC 60529,** IP69K conforming to **DIN 40050-9**
Vibration resistance		Conforming to **EN 60947-5-2**
Shock resistance		Conforming to **EN 60947-5-2**
Permitted cable length		100 m / *328.1 ft*
Material		Housing: ABS/PC, Lens: PMMA
Factory Setting		Scanning distance = 500 mm (6%) and NO

BlueLight Risk group 2

⚠ CAUTION

EYE INJURY DUE TO HAZARDOUS OPTICAL RADIATION
- Do not stare at the beam.
- Avoid any eye contact with the beam.

Failure to follow these instructions can result in injury or equipment damage.

CE UKCA

Telemecanique Sensors