# Photo-electric sensors - Miniature design Polarised reflex **Package Content** (Example) Instruction PTIIX



**WARNING** 

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

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### 4 **DANGER**

### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

XUT9ALPXL2

· Disconnect all power before servicing equipment. · Do not connect this device to AC power.

XUT9ALPXP02

The power voltage must not exceed the rated range.

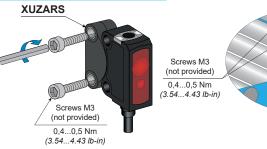
Failure to follow these instructions will result in death or serious injury.

### 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 XUM 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 photoelectric 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



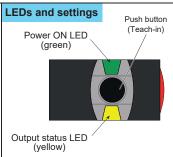


### DEGREE OF PROTECTION DETERIORATION

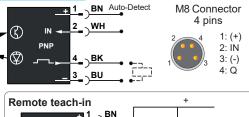
**CAUTION** 

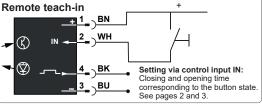
Do not apply excessive torque on the sensor during the installation process.

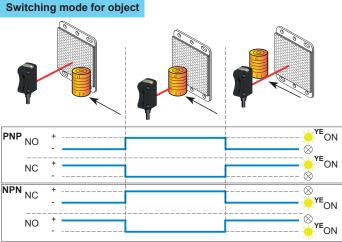
Failure to follow these instructions can result in injury or equipment damage.





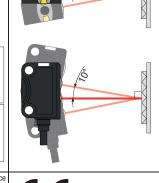


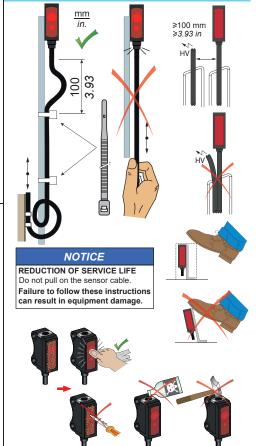




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# **Alignment**



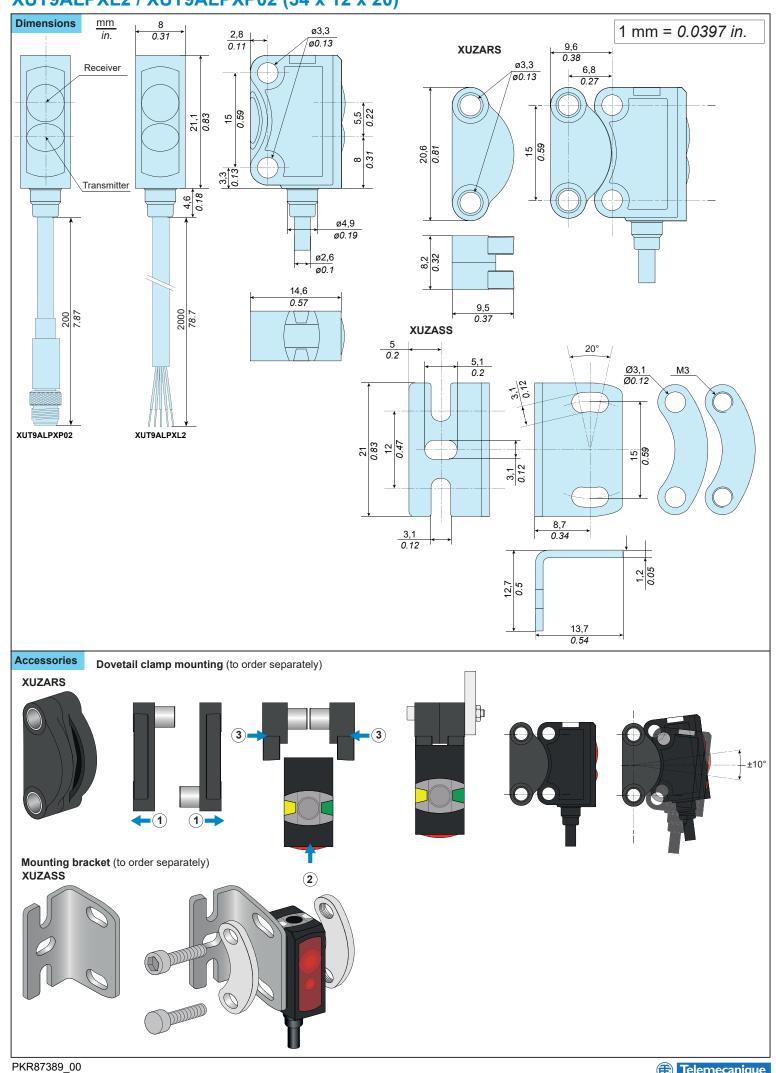


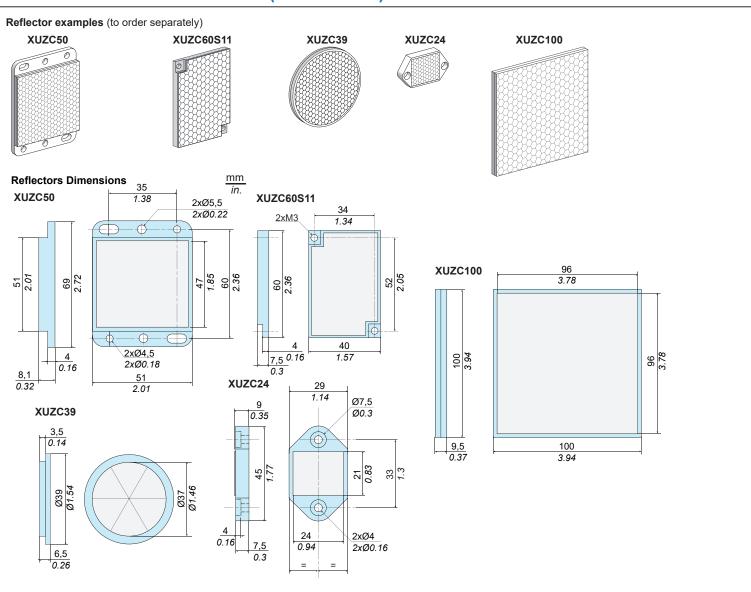
Mounting, wiring and maintenance precautions











## Pre-wired connectors (examples)

PVC cable for general use PUR cable for severe industrial environments





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XZCPB1141L2 2m PUR XZCPB1141L5 5m PUR

Jumper M12 - 4 pins plug - 4 pins socket



M8 - 4 pins socket



For other cables (angled or length) visit our website: Tesensors.com



# **XUT9ALPXL2 / XUT9ALPXP02 (34 x 12 x 20)** Light spot size 16 14 12 10 horizontal (x) Size (mm) 8 4 vertical (y) 0 0 0,5 2,5 Distance (m) Setting The sensor has 3 different Teach-in modes: A-Standard Teach-in (STI): is suited for nearly all applications. Setting is made on object and background (see illustration A). B-Dynamic Teach-in (DTI): is suited for setting the sensor in the running process, particularly for small objects (see illustration B). Alternately Action duration GN: Green YE: Yellow Flashing Standard teach-in (STI) Step 1: Teach-in object Step 2: Teach-in background Press Q 1s until green and yellow LED flash at the same time. The green LED flashes B Dynamic Teach-in (DTI) Step 1: During running process Step 2: Teach-in object during running process Press Q > 3 s Press Q > 1 Object until green and yellow LED flash at the same time. Switching NO/NC 7 10 s \_ 🔪 🕦

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### Factory Setting Max. scanning distance and NO Green LED flashes Yellow LED flashes Green LED OFF Green LED OFF Press Q \* $\otimes$ $\otimes$ Press and hold any button and Power ON: → green and yellow LEDs flash simultaneously Keep button pressed > 10 s: → green and yellow LEDs still flash simultaneously, but faster **Power OFF** Power OFF → sensor is set to factory settings

# Characteristics

Certification	CE - UKCA - cULus - Ecolab
Sensing Range (using a 50 mm x 50 mm reflector XUZC50)	Maximum sensing distance: 0,14 m / 0.3313.1 ft. Nominal sensing distance: 0,13 m / 0.339.84 ft.
Setting	Teach button
Color of detection light beam	Laser class 1, red, 655 nm
Wavelength	λ = 655 nm
Puls duration	t = 3,2 μs
Frequency	f = 5 kHz
Limit of radiant power pulse	Pp ≤ 2,3 mW
Light spot size	See spot size curve
Switching output Q	PNP (NO or NC)
Control input IN (switching function Q):	(+) = Teach-in (-) =
Current consumption	≤ 12 mA
Switching capacity	≤ 50 mA
Switching frequency	≤ 1000 Hz
First-up delay	< 300 ms
Response time	500 μs
Recovery time	< 300 ms
Ambient Temperature	Operating : - 20+50 °C (-4+122 °F) - UL : - 20+30 °C (-4+86 °F) Storage : - 20+80 °C (-4+176 °F)
Power Voltage	Rated operational voltage: 24 Vdc Ripple p-p 10% maximum Operating range: 1030 Vdc (including ripple)
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
Vibration resistance	Conforming to EN 60947-5-2
Shock resistance	Conforming to EN 60947-5-2
Material	Housing: PUR, Front and Lens: PMMA

