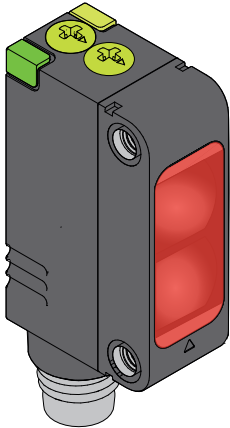


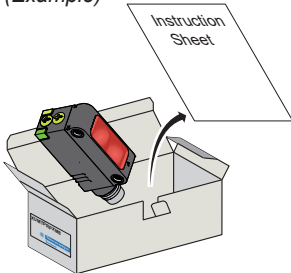
Photo-electric sensors - Miniature design



Polarised reflex



Package Content
(Example)



<http://qr.tesensors.com/XU0020>

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

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

DANGER

WARNING

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.

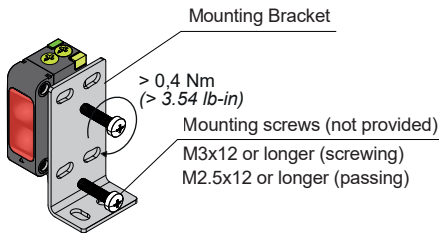
Failure to follow these instructions will result in death or serious injury.

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 device.
- Do not tamper with or make alterations on the device.
- Comply with the wiring and mounting instructions.
- Check the connections and fastening during maintenance operations.
- The proper functioning of the device 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

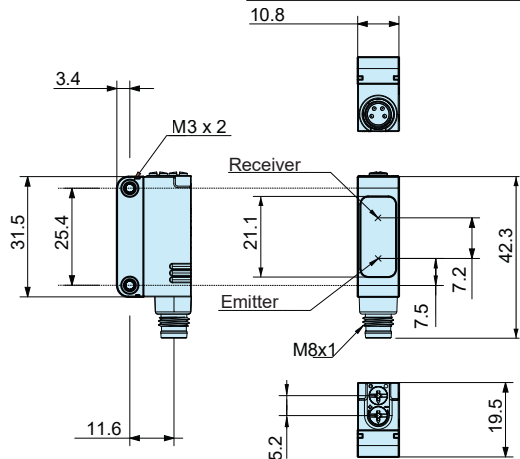


CAUTION

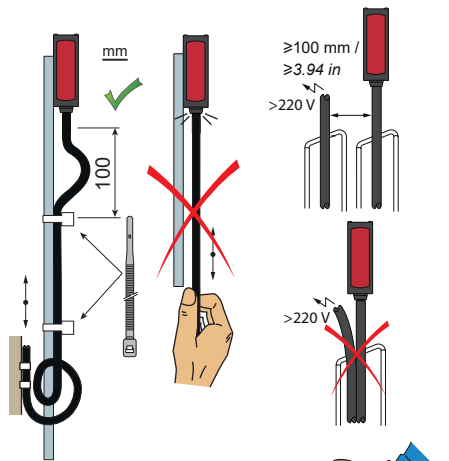
DEGREE OF PROTECTION DETERIORATION
Do not apply excessive torque on the sensor during the installation process.
Failure to follow these instructions can result in injury or equipment damage.

Dimensions

1 mm = 0.0394 in.



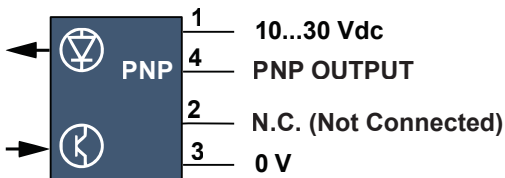
Mounting, wiring and maintenance precautions



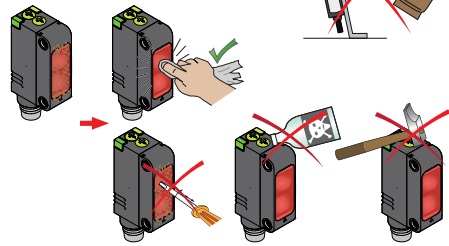
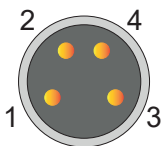
NOTICE

REDUCTION OF SERVICE LIFE
Do not pull on the sensor cable.
Failure to follow these instructions can result in equipment damage.

Wiring diagrams



M8 Connector
4 pins



Our product should be installed, operated and maintained only by qualified personnel. Neither TMSS France nor any of its subsidiaries or other affiliated companies shall be responsible or liable for any consequences arising out of the use of this material. Telemecanique™ Sensors is a trademark of Schneider Electric Industries SAS used under license by TMSS France. Any other brands or trademarks referred to in this document are property of TMSS France or, as the case may be, of its subsidiaries or other affiliated companies. All other brands are trademarks of their respective owners.

Pre-wired connectors (examples)

Jumper



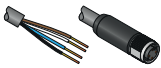
M8 - 4 pins plug
M8 - 4 pins socket
XZCR2705037R1 1m PUR
XZCR2705037R2 2m PUR

Jumper



M12 - 4 pins plug
M12 - 4 pins socket
XZCR1509041J1 1m PUR
XZCR1509041J2 2m PUR

Cable



M8 - 4 pins socket
4 wires
XZCP0941L2 2m PUR
XZCP0941L5 5m PUR

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

Accessories

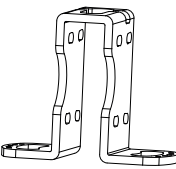
Fixing bracket:



XUZA50

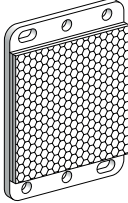


XUZASM02

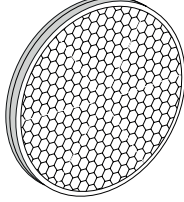


XUZASM03

Reflector:



XUZC50



XUZC80

LEDs and settings

Stability LED (green)

Output status LED (yellow)

Sensitivity control (1 turn)

L/D selection



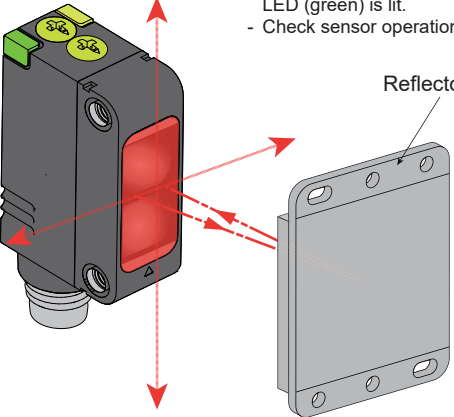
Output status LED
The yellow LED indicates the output status.

Stability LED
The green LED ON indicates that the received signal has a safety margin greater than 20% compared to the output switching value.

Sensitivity control
The potentiometer can be used to adjust sensitivity; the detection reliability increases turning the potentiometer clockwise.

Light-on/Dark-on potentiometer
This potentiometer can be used to set LIGHT-ON or DARK-ON operation mode.
See NO/NC correspondences below.
Notice: The potentiometer rotation is limited to 250° by a mechanical stop. Do not apply excessive torque when adjusting (max 0.02 Nm).

Sensor position adjustment



Reflector

Max. operating distance

Available Reflectors	
XUZC80	XUZC50
3,5 m	2,0 m

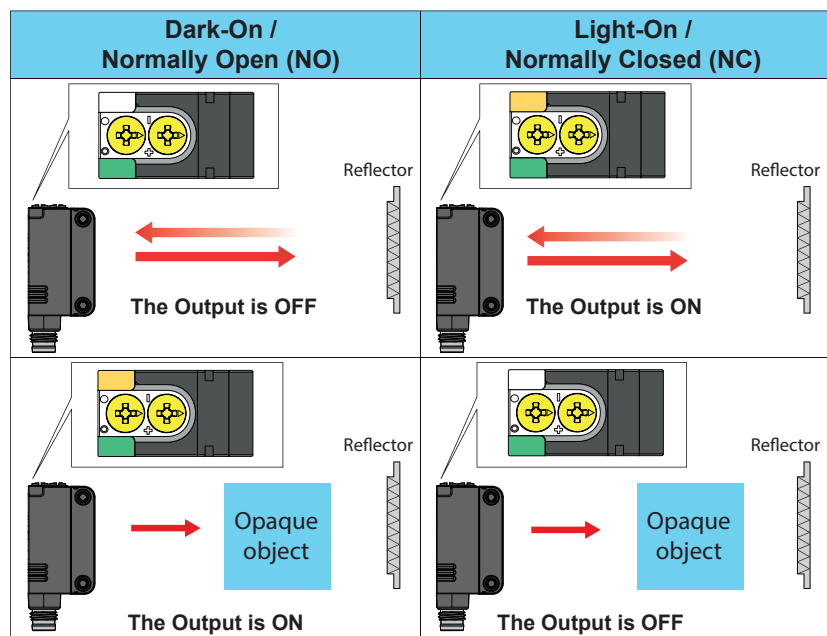
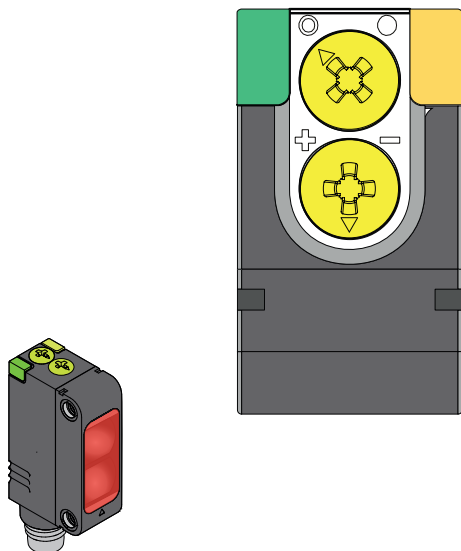
LED status with NO output function

Stability LED: ON (green)

Output status LED: ON (yellow)

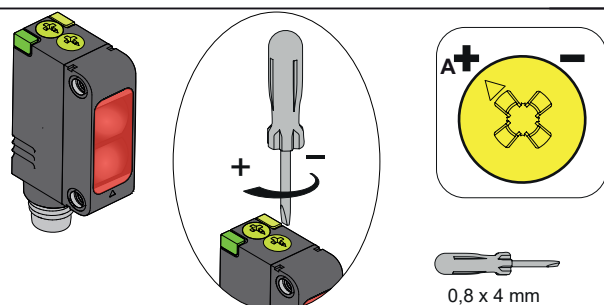


Output mode setting: NO or NC (NO by default)

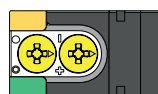


Position adjustment

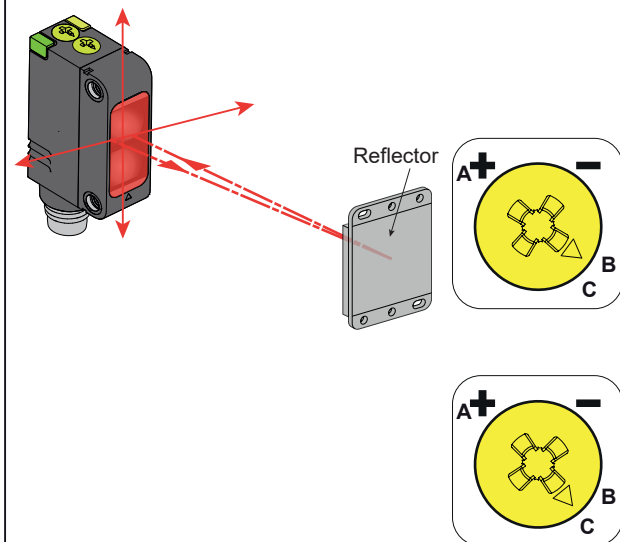
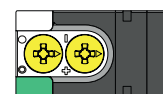
For accurate detection, follow the configuration below. (eg. Reflective objects, with holes or small size to obstruct the reflection of the light beam).

Dark-On /
Normally Open (NO)

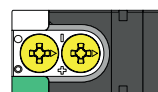
1-Connect the sensor to the power supply (see page 1 for the wire connection and page 4 for the power voltage). Before settings, start with the potentiometer at the maximum position (resulting to point A).

Light-On /
Normally Closed (NC)

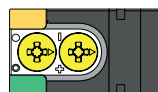
1-Connect the sensor to the power supply (see page 1 for the wire connection and page 4 for the power voltage). Before settings, start with the potentiometer at the maximum position (resulting to point A).



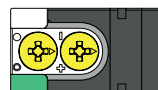
2-Put the reflector in front of the sensor.



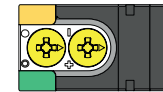
Turn the potentiometer anti-clockwise until the Output LED (yellow) switches on (resulting to point B). The Stability LED (green) switches off/on when the output switches.



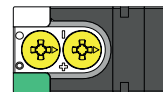
Turn the potentiometer clockwise, until the Output LED (yellow) switches off. The sensor is now at the sensitivity maximum level.



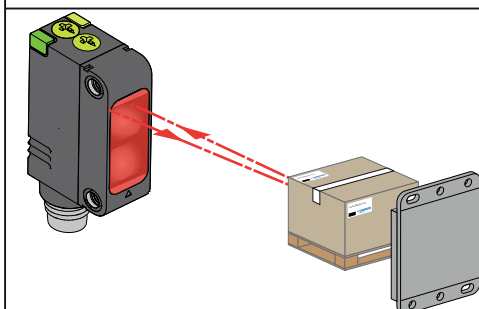
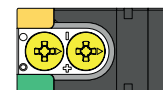
2-Put the reflector in front of the sensor.



Turn the potentiometer anti-clockwise until the Output LED (yellow) switches off (resulting to point B). The Stability LED (green) switches off/on when the output switches.

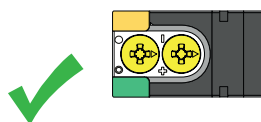


Turn the potentiometer clockwise, until the Output LED (yellow) switches on. The sensor is now at the sensitivity maximum level.



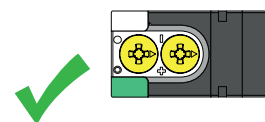
3-Put the object between the sensor and the reflector. Make sure the Output LED (yellow) switches on & the Stability LED (green) is on. This ensures a good stability of detection.

The sensor is set and ready to detect.



3-Put the object between the sensor and the reflector. Make sure the Output LED (yellow) switches on & the Stability LED (green) is on. This ensures a good stability of detection.

The sensor is set and ready to detect.



Characteristics

Certification	CE - UKCA - cULus
Sensing Range	With reflector XUZC50: 0...2 m
Power Voltage	Operating range: 10...30 Vdc (including ripple p-p 10% maximum) 
Current consumption	≤ 35 mA (≤ 50 mA below 12 V supply)
Output	Pin 2
Output current	Output current 100 mA max. short circuit protected
Voltage drop	2 V max.
Response time	0.5 ms
Indicators	Yellow: output status Green: Stability
Setting	Sensitivity: 1 turn potentiometer L/D selection
Operating temperature	-20...55°C (not condensing)
Storage temperature	-40...70 °C
Emission type	Red LED 635 nm EN/IEC 62471 EXEMPT RISK GROUP (RG0)
Ambient light rejection	According to EN/IEC 60947-5-2 plus reinforced immunity (internal test)
Vibration	0.5 mm amplitude, 10...55 Hz frequency, for each axis (EN/IEC 60068-2-6)
Shock resistance	11 ms (30 g) 6 shock for each axis (EN/IEC 60068-2-27)
LIGHT/DARK selection	By potentiometer
Housing	Body: Glass filled technopolymer Indicators: TPE Actuators: POM
Lenses	PMMA
Protection degree	IP65/IP67 conforming to EN/IEC 60529
Connections	M8 connector 4 pins
Weight	10 g



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France



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