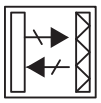
XUM9ALAYM8 / XUM9ALAYP015 / XUM9ALAYL2 (34 x 12 x 20)

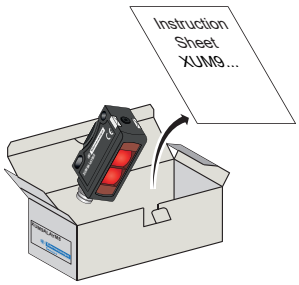
www.tesensors.com

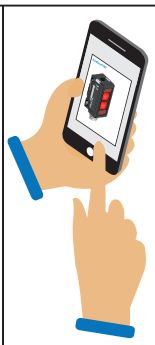
Photo-electric sensors - Miniature design

Polarised reflex



Package Content
(Example)





http://qr.tesensors.com/XU0020

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.

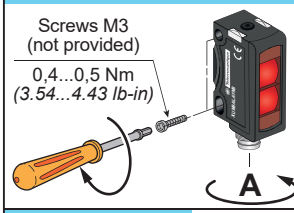
WARNING

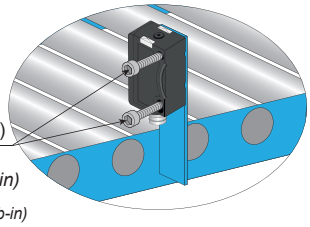
IMPROPER SETUP OR INSTALLATION

- This equipment must only be installed and serviced by qualified personnel.
- Read, understand, and follow the compliance below, before installing the 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

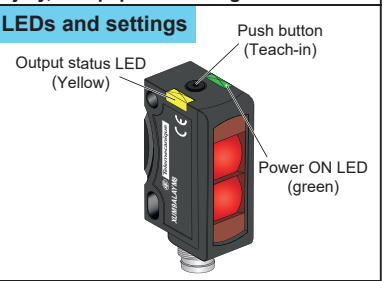




CAUTION

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 settings

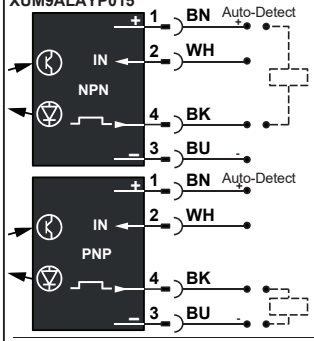


Wiring diagrams

M8 Connector
4 pins

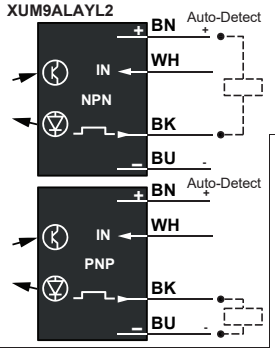
1: (+)
2: IN
3: (-)
4: Q/IO-Link

XUM9ALAYM8
XUM9ALAYP015

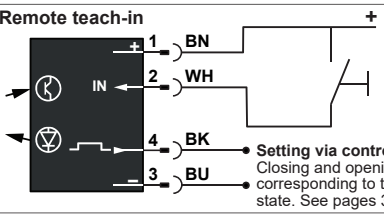


2 m Cable - 4 wires

XUM9ALAYL2



Remote teach-in



Setting via control input IN:
Closing and opening time corresponding to the button state. See pages 3 and 4.

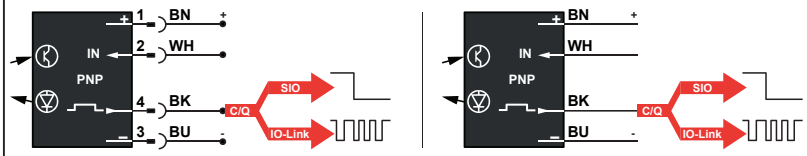
CAUTION

INOPERABLE EQUIPMENT DUE TO CYBER ATTACK ON IO-LINK

- Apply external cybersecurity protection on IO-Link Master device.
- Download IO-Link Description files only from these web servers: https://tesensors.com/global/en/support/iolink or https://ioddfinder.io-link.com/#/

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

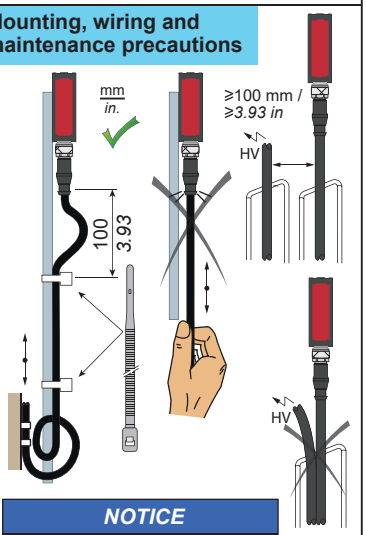
IO-Link



Pin	Wire	Signal	Definition
1	BN	+	+ 24 Vdc
2	WH	IN	+ = NO - = NC Open = NO
3	BU	-	0 Vdc
4	BK	Q	Switching signal (SIO)
		C	Communication IO-Link

IO-Link data tables and IODD files are online:
Scan the 2D code, above

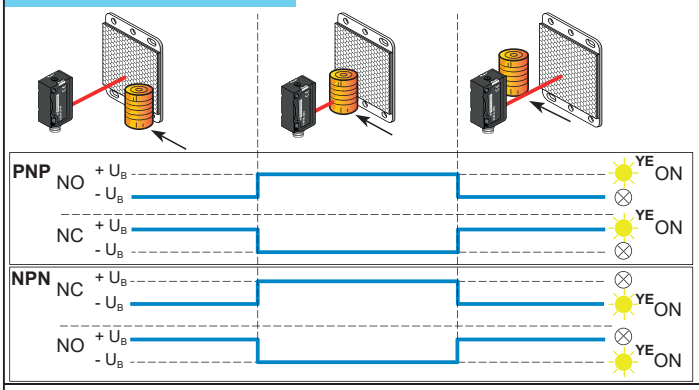
Mounting, wiring and maintenance precautions



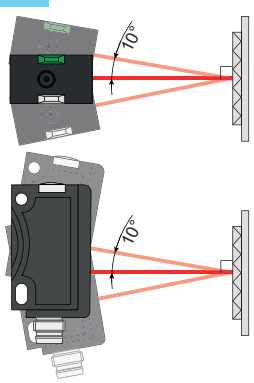
NOTICE

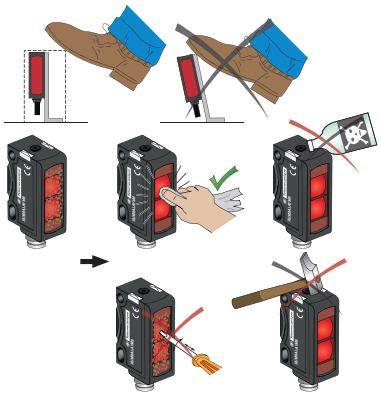
REDUCTION OF SERVICE LIFE
Do not pull on the sensor cable.
Failure to follow these instructions can result in equipment damage.

Switching mode for object



Alignment





Manufacturer :
TMSS France
Tour Eqho - 2 avenue Gambetta
92400 Courbevoie
France

UK Representative :
Yageo TMSS UK Limited
2 North Park Road
Harrogate, HG1 5PA
United Kingdom

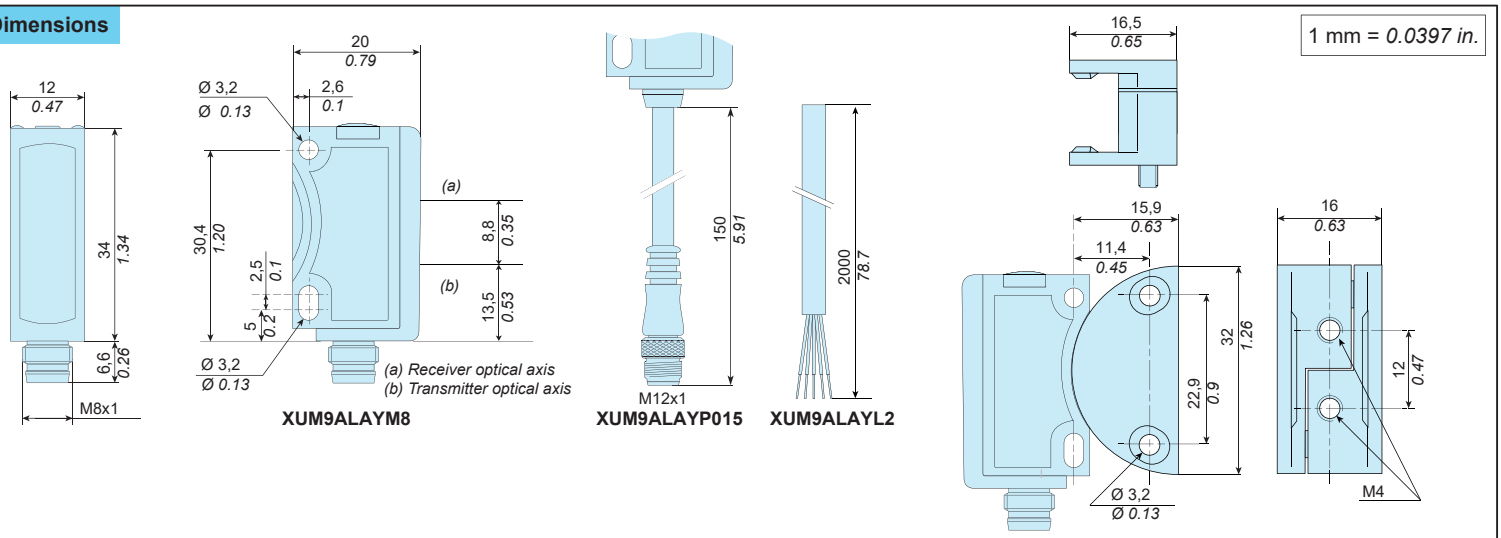
068-15049

Telemecanique Sensors

XUM9ALAYM8 / XUM9ALAYP015 / XUM9ALAYL2 (34 x 12 x 20)

Dimensions

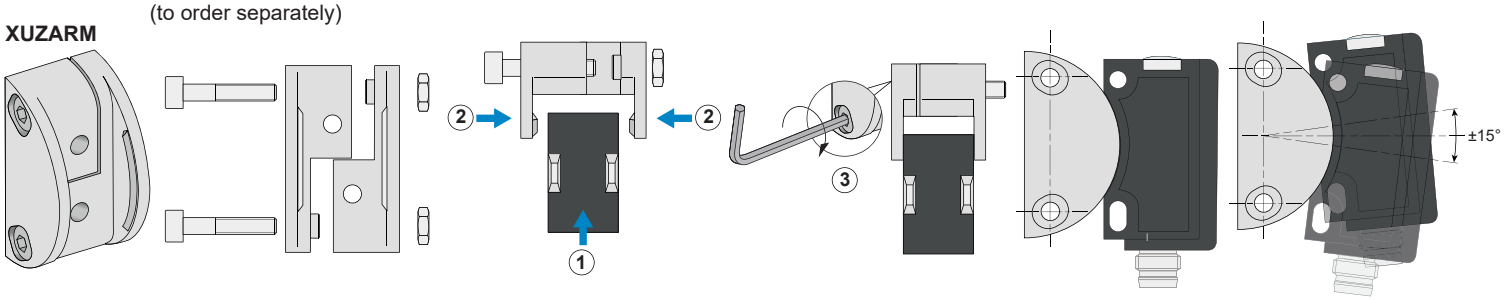
1 mm = *0.0397 in.*



Accessories

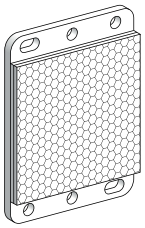
Dovetail clamp mounting for flexible adjustment
(to order separately)

XUZARM

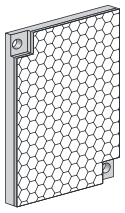


Reflector examples (to order separately)

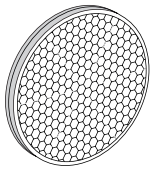
XUZC50



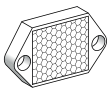
XUZC60S11



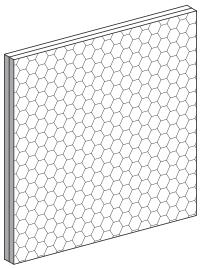
XUZC39



XUZC24

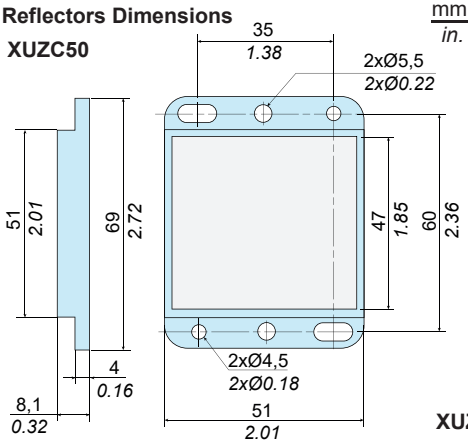


XUZC100

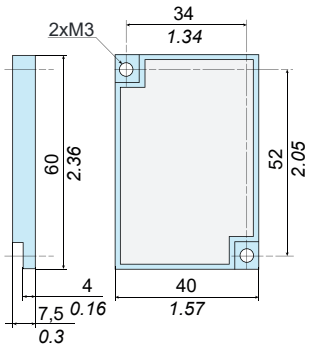


Reflectors Dimensions mm / *in.*

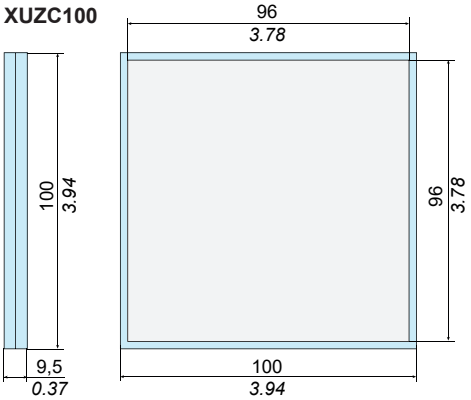
XUZC50



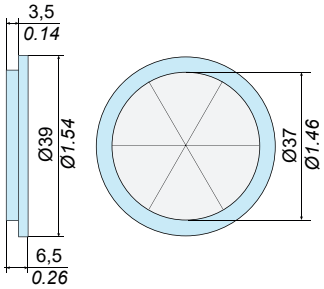
XUZC60S11



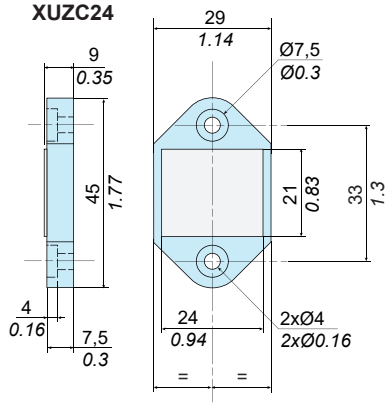
XUZC100



XUZC39



XUZC24



XUM9ALAYM8 / XUM9ALAYP015 / XUM9ALAYL2 (34 x 12 x 20)

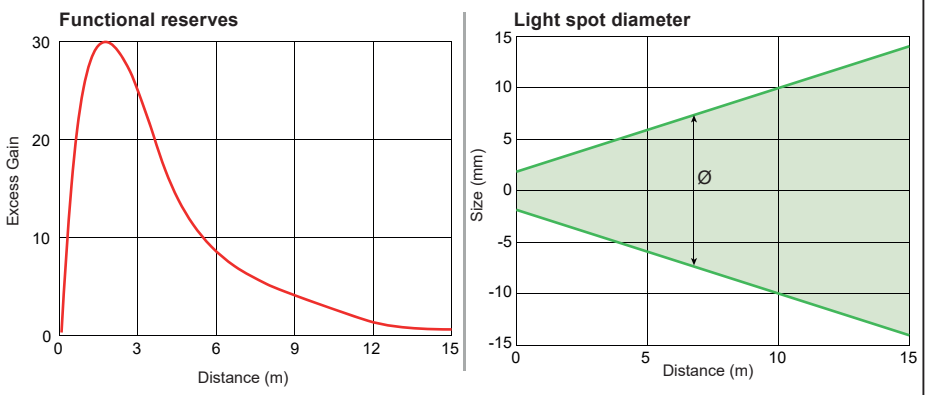
Pre-wired connectors (examples)

PVC cable for general use
PUR cable for severe industrial environments

Jumper M8 - 4 pins plug M8 - 4 pins socket	Jumper M12 - 4 pins plug M8 - 4 pins socket	M8 - 4 pins socket 4 wires
		
XZCPB1141L2 2m PUR **XZCPB1141L5** 5m PUR	**XZCR2711037T1** 1m PUR **XZCR2711037T2** 2m PUR	**XZCR2705037R1** 1m PUR **XZCR2705037R2** 2m PUR

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

Curves

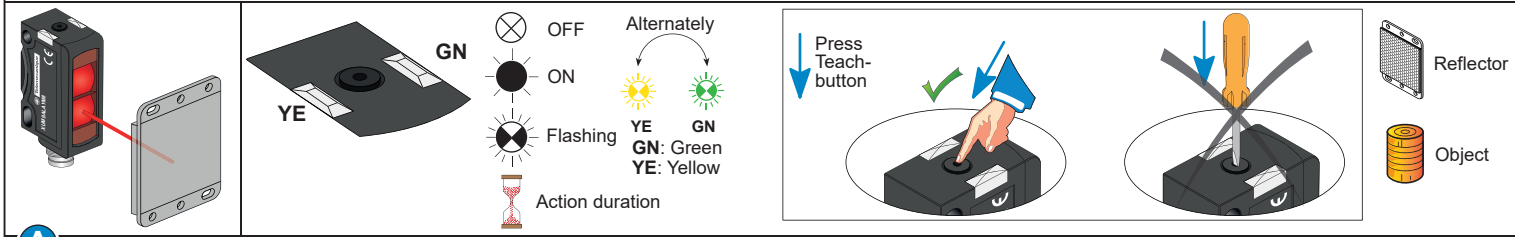


Reference material: **XUZC50** reflector

Setting

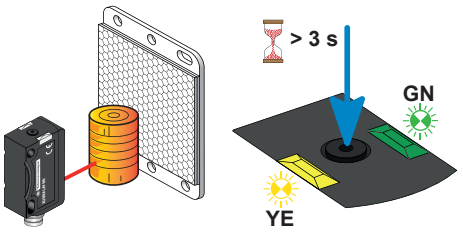
The sensor has 2 different Teach-in modes:
A-Standard Teach-in (STI): is suited for nearly all applications. Setting is made on object and background (see illustration A).
B-Dynamic Teach-in (DTI): is suited for setting the sensor in the running process, particularly for small objects (see illustration B).

The sensor has 3 different **Switching NO/NC** settings:
1: NO/NC via teach-in in series
2: Sensor always NC
3: Sensor always NO



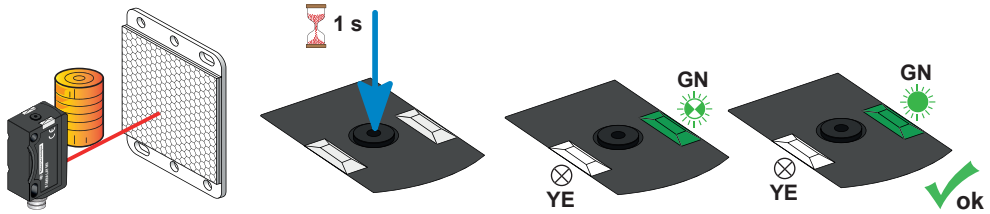
A Standard teach-in (STI)

Step 1: Teach-in object



Press teach button > 3 s
until green and yellow LED flash at the same time.

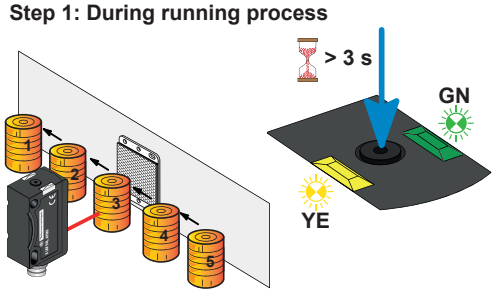
Step 2: Teach-in background



Press teach button 1 s
The green LED flashes

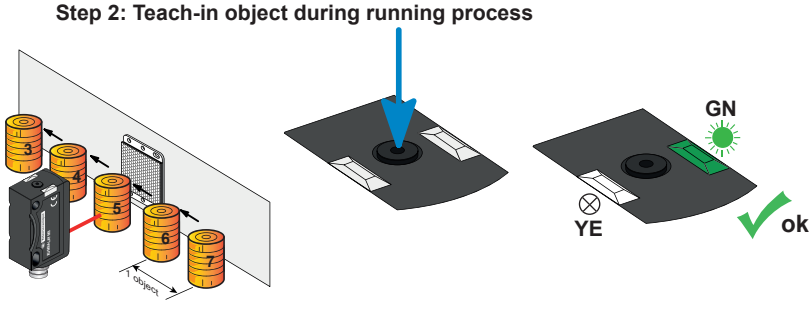
B Dynamic Teach-in (DTI)

Step 1: During running process



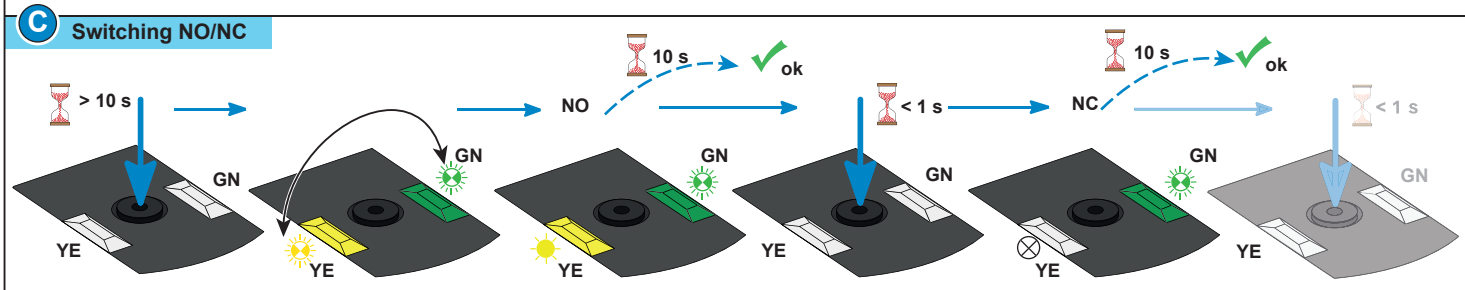
Press teach button > 3 s
until green and yellow LED flash at the same time.

Step 2: Teach-in object during running process

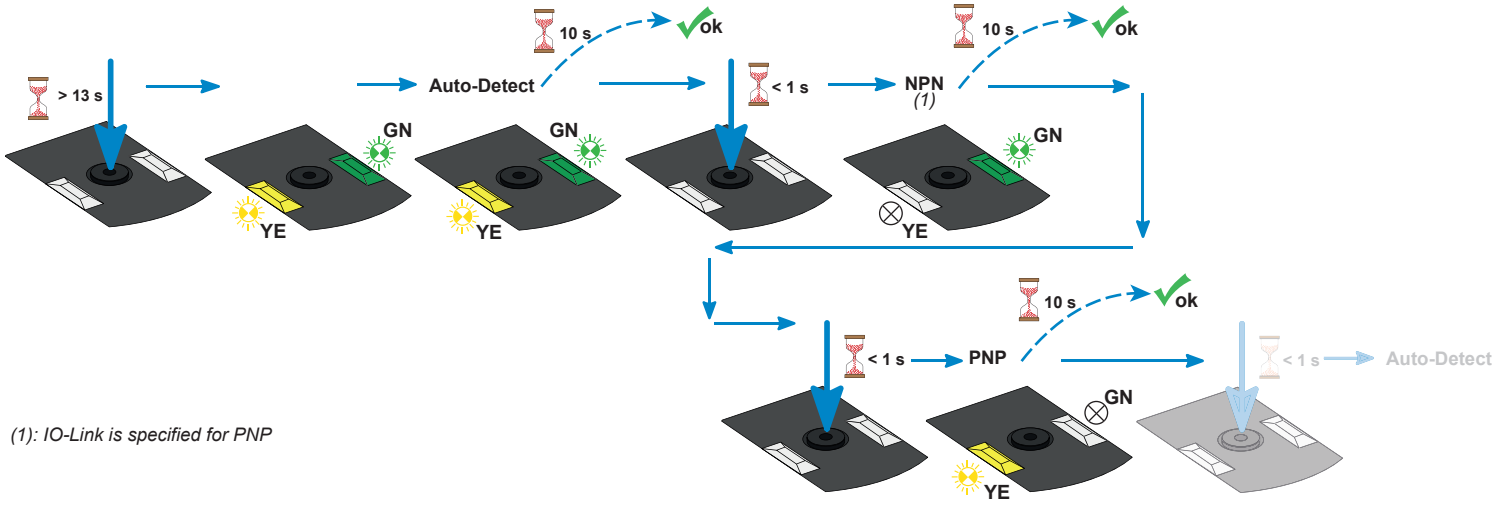


Press teach button > 1 Object

C Switching NO/NC

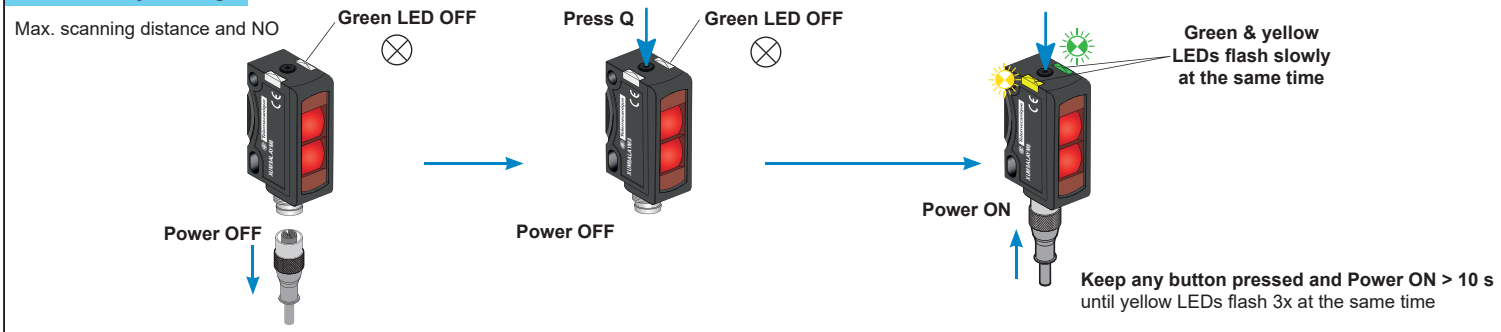


D SWITCHING AUTO-DETECT / NPN / PNP



(1): IO-Link is specified for PNP

E Factory Setting



Characteristics

Certification	CE - UKCA - cULus - Ecolab
Sensing distance (Using reflector XUZC50)	Nominal sensing distance: 0,1...13 m / *0.33...42.7 ft.* Maximum sensing distance: 0,1...15 m / *0.33...49.2 ft.*
Setting	Teach button
Color of detection light beam	Laser class 1, red, 650 nm
Wavelength	λ = 650 nm
Puls duration	t = 0,7 µs
Frequency	f = 11,7 kHz
Limit of radiant power pulse	Pp ≤ 8,5 mW
Light spot size	See spot diameter curve
Switching output Q	Auto-Detect - PNP/NPN (NO or NC) - IO-LINK
Control input IN (switching function Q):	**(+)** = Teach-in **(-)** = button locked Open = normal function
Current consumption	≤ 30 mA
Switching capacity	≤ 100 mA
Switching frequency	≤ 4000 Hz
First-up delay	< 300 ms
Response time	125 µs
Recovery time	< 300 ms
Ambient Temperature	Operating : - 20...+60 °C *(-4...+140 °F)* - UL : - 20...+50 °C *(-4...+122 °F)* Storage : - 20...+80 °C *(-4...+176 °F)*
Power Voltage	Rated operational voltage: 24 Vdc Ripple p-p 10% maximum Operating range: 10...30 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,** IP69K conforming to **DIN 40050-9**
Vibration resistance	Conforming to **EN 60947-5-2**
Shock resistance	Conforming to **EN 60947-5-2**
Material	Housing: ABS, Front and Lens: PMMA

Class 1
(IEC 60825-1)