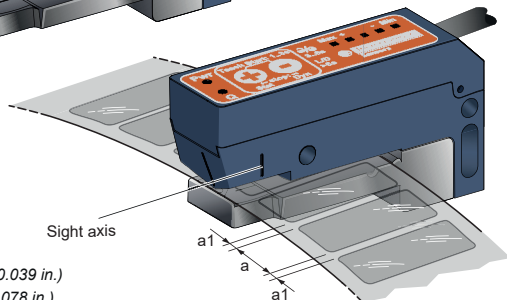
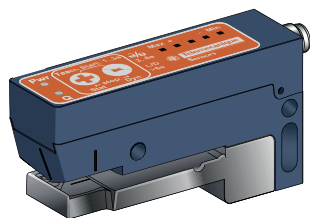


Ultrasonic fork for label detection

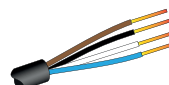


$a1 \geq 1 \text{ mm (0.039 in.)}$
 $a \geq 2 \text{ mm (0.078 in.)}$



M12 cable connector

XUVU04M3BL02M12
 XUVU04M3PL02M12
 XUVU04M3NL02M12



Cable 2 m/6.56 ft

XUVU04M3BL2
 XUVU04M3PL2
 XUVU04M3NL2



M8 direct connector

XUVU04M3BM8
 XUVU04M3PM8
 XUVU04M3NM8



<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

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.

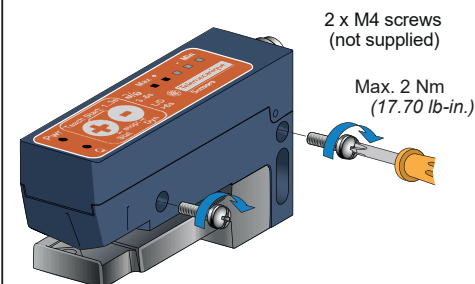
⚠ WARNING

IMPROPER SETUP OR INSTALLATION

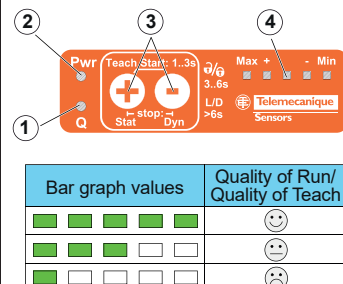
- This equipment must be installed and serviced by qualified personnel only.
- Read, understand, and follow the instructions below before installing the device.
- Do not tamper with or make alterations to the device.
- Comply with the wiring and mounting instructions.
- Check the connections and fastening 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



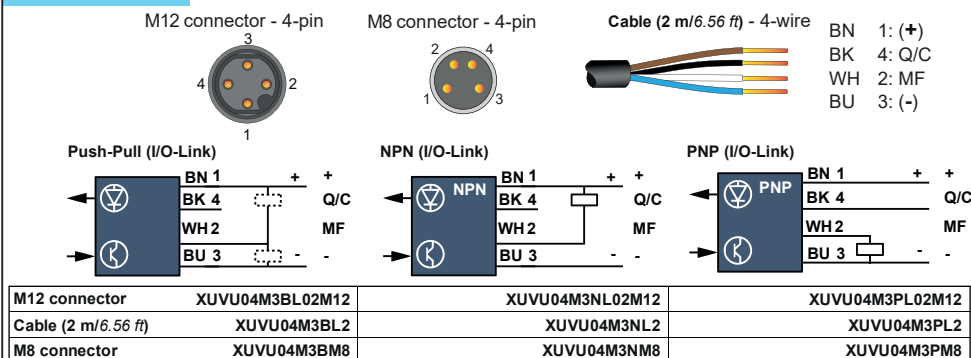
LEDs and settings



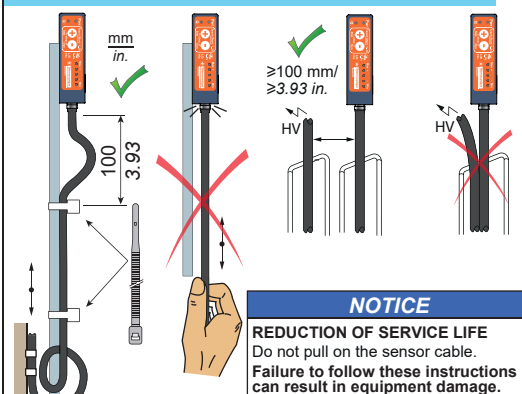
- 1 Q LED (yellow): Status switching output Q
- 2 Power LED (green)
- 3 Teach-in buttons
- 4 5-segment LED bar graph (green): QoT/QoR indication

Q LED flashes	Description
1 Hz	Static Teach-in
3 Hz	Static or Dynamic Teach-in
6 Hz	Dynamic Teach-in failed
2 x 1 Hz	Pushbutton lock activated
3 x 1 Hz	Pushbutton lock activated
4 x 1 Hz	Output signal: NO/NC switch
10 x 6 Hz	Unsuccessful 1-point Teach-in

Wiring diagrams



Mounting, wiring and maintenance precautions



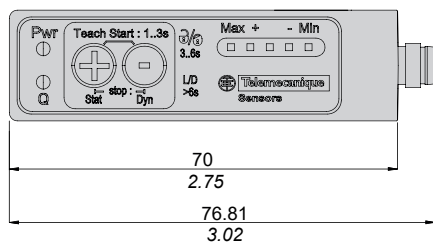
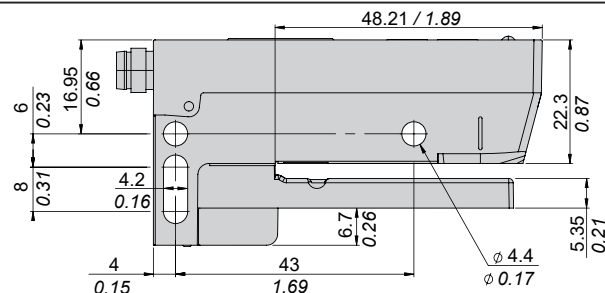
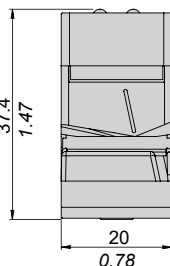
⚠ CAUTION

INOPERABLE EQUIPMENT DUE TO CYBER ATTACK ON IO-LINK

- Apply external cybersecurity protection on IO-Link Master device.
 - Download IO-Link description files from these web servers only:
<https://tesensors.com/global/en/support/iolink> or
<https://iodfinder.io-link.com/#/>
- Failure to follow these instructions can result in injury or equipment damage.

Electrical equipment 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.

Dimensions

mm
in.

Setting

- ⊗ Off
 ⊗ On
 ⊗ 6 Hz Fast flash
 ⊗ 3 Hz Medium flash
 ⊗ 1 Hz Slow flash

Action	Yellow Q LED	Bar graph
Dynamic teach with moving labels: web speed < 2.5 m/s		
① & External Teach OR External Teach	3 Hz	OFF
② Wait until at least one mark has passed the light spot	-	-
③ & External Teach OR External Teach	Contrast OK: Q LED: Realtime detection status Contrast NOK: 6 Hz Restart teach process	Contrast OK: Quality of Teach Contrast NOK: 6 Hz Restart teach process
Static teach		
① Place the web or label	Q LED: Realtime detection status	Quality of Run
② & External Teach OR External Teach	3 Hz	OFF
③ Place the web or label (depending on what you placed in step 1)	-	-
④ & External Teach OR External Teach	Contrast OK: 1 Hz then Q LED: Realtime detection status Contrast NOK: 10 x 6 Hz	Contrast OK: Quality of Teach Contrast NOK: ON
Sensitivity adjustment		
Step-by-step OR External Teach	Q LED: Realtime detection status	Max + - Min ON Max + - Min ON Max + - Min ON
Fast OR External Teach	Q LED: Realtime detection status	Max + - Min 6 Hz ON Max + - Min 6 Hz ON
Locking/Unlocking the keypad		
Locking & External Teach	2 x 1 Hz	Quality of Run
Unlocking & External Teach	4 x 1 Hz	Quality of Run
Output signal: NO/NC switch		
& External Teach	3 x 1 Hz	Quality of Run

Accessories

M12, 4-pin

Cable length
 2 m / 6.56 ft
 5 m / 16.4 ft
 10 m / 32.8 ft

PVC

PUR

PVC

PUR

XZCPV1141L2
 XZCPV1141L5
 XZCPV1141L10

XZCP1141L2
 XZCP1141L5
 XZCP1141L10

XZCPV1241L2
 XZCPV1241L5
 XZCPV1241L10

XZCP1241L2
 XZCP1241L5
 XZCP1241L10

M12-M12, 4-pin

Jumper length
 1 m / 3.28 ft
 2 m / 6.56 ft
 5 m / 16.4 ft

PVC

PUR

PVC

PUR

XZCRV1511041C1
 XZCRV1511041C2
 XZCRV1511041C5

XZCR1511041C1
 XZCR1511041C2
 XZCR1511041C5

XZCRV1512041C1
 XZCRV1512041C2
 XZCRV1512041C5

XZCR1512041C1
 XZCR1512041C2
 XZCR1512041C5

Characteristics

System	Thru-beam		
Type of transmission	Ultrasonic		
Nominal sensing distance (Sn)	2.6 mm (0.10 in.)		
Depth	43 mm (1.69 in.)		
Remote adjustment	NC or NO programmable function	XUVU04M3B●	XUVU04M3P●
Product certifications		Push-Pull	XUVU04M3N●
		PNP	NPN
Materials	Valox, Zamac		
Detection performance	Minimum length of label	2 mm (0.078 in.)	
	Minimum distance between 2 labels	1 mm (0.039 in.)	
	Maximum flow rate	4 m/s (240 m/min) - 13.12 ft/s (787.4 ft/min)	
Supply	Detection accuracy	For v = 2 m/s: +/- 0.25 mm (6.56 ft/s: +/- 0.0098 in.)	
	Rated supply voltage	12-24 Vdc	
	Voltage limits	10-30 Vdc	
Output	Current consumption, no-load 45	<50 mA	
	Maximum rated current	100 mA	
	Maximum switching frequency	1.1 kHz	
LEDs	Output state	Yellow	
	Quality of Teach/Quality of Run	5-segment LED bar graph (green)	
	Power	Green	
Delay		440 μs	
Environment	Operating temperature	+5...+55 °C (+41...+131 °F)	
	Storage temperature	-20...+70 °C (-4...+158 °F)	
	Degree of protection	IP65	

CE **Manufacturer:**
 TMSS France
 Tour Egho - 2 avenue Gambetta
 92400 Courbevoie
 France

UK **UK Representative:**
 SE TESE UK Limited
 2 North Park Road
 Harrogate, HG1 5PA
 United Kingdom