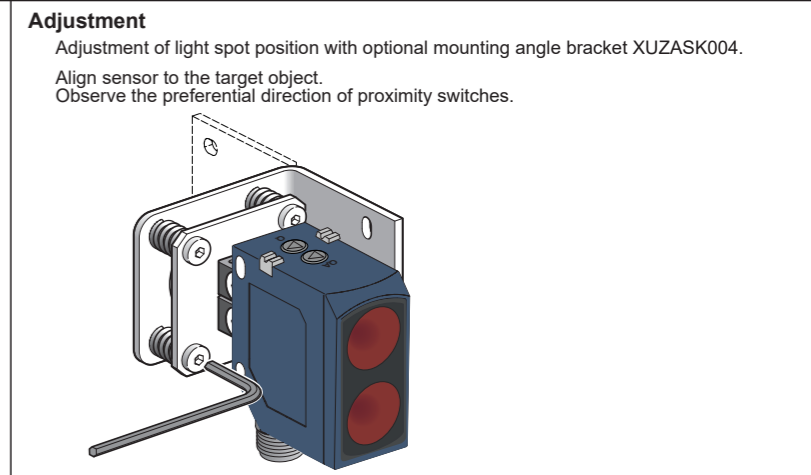
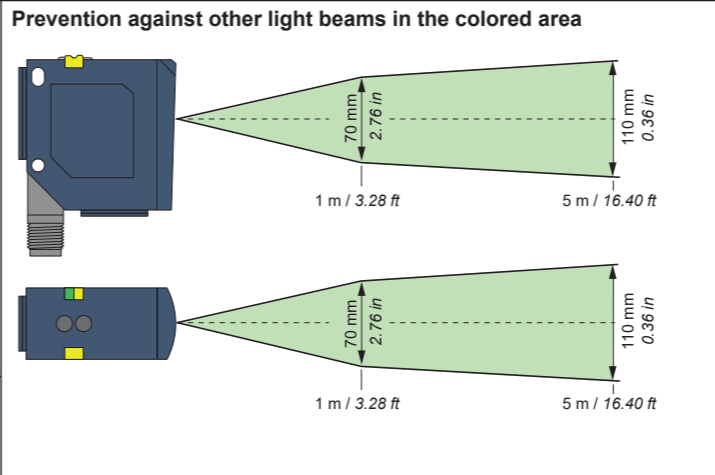
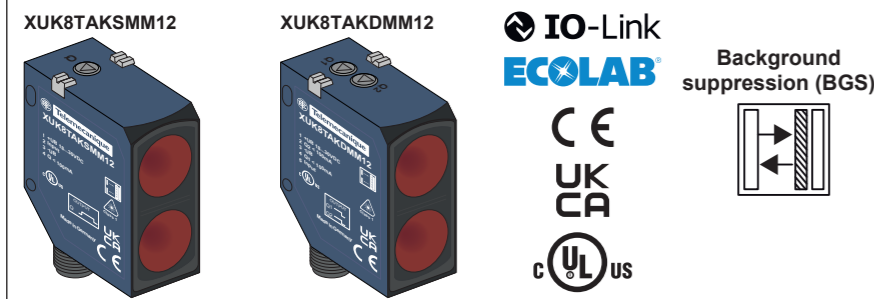
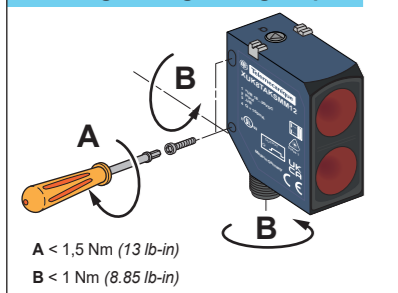


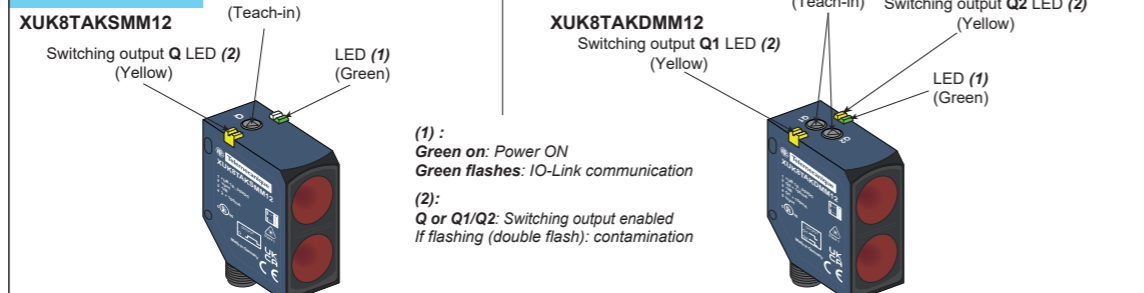
**XUK8TAKSMM12 / XUK8TAKDMM12 Diffuse distance sensor with background suppression**



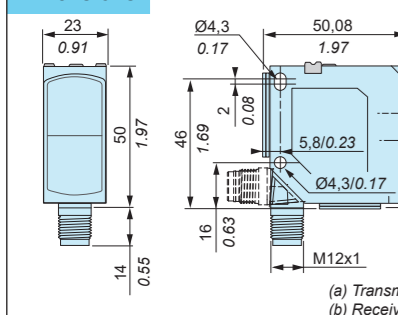
**Mounting and Tightening torques**



**LEDs and Setting**

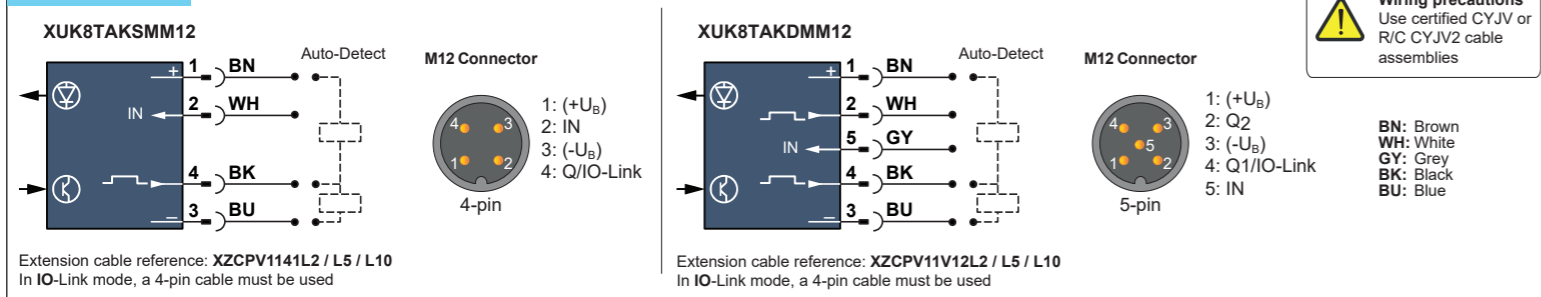


**Dimensions**

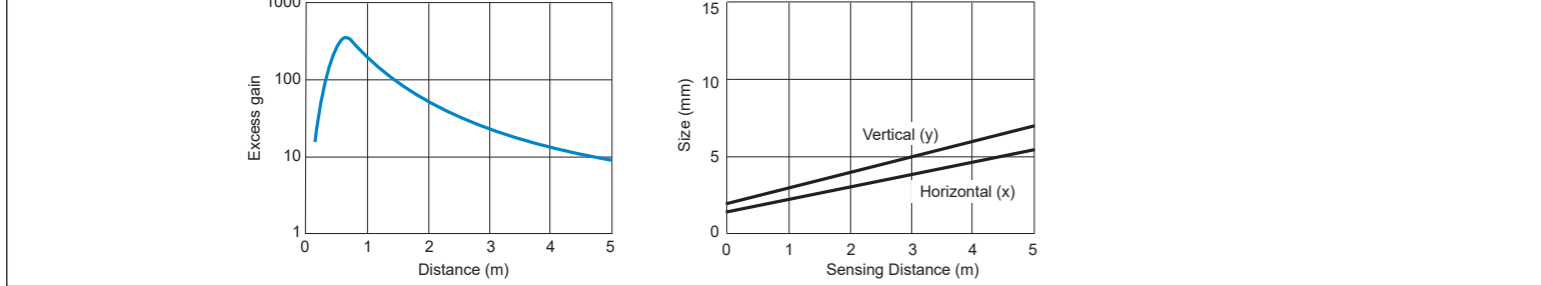


Characteristics	
Certification	CE - UKCA - cULus - Ecolab
Sensing distance (Reference material)	White (90%) 0...5 m / 0...16.4 ft
	Grey (18%) 0...5 m / 0...16.4 ft
	Black (6%) 0,05...3 m / 0.16...9.84 ft
Setting	Teach button
Color of detection light beam	Laser class 1, red, 655 nm
Spot size of the light beam	see "Light beam size" curve
Wavelength	$\lambda = 655 \text{ nm}$
Puls duration	$t < 5 \text{ ns}$
Frequency	$f = 62,5 \text{ kHz}$
Limit of radiant power pulse	$P_p < 1,25 \text{ mW}$
Switching output Q	Auto-Detect PNP/NPN (N.O. or N.C.) - IOLINK
	XUK8TAKSMM12: 1 x Auto-Detect (Q) XUK8TAKDMM12: 2 x Auto-Detect (Q1,Q2)
Control input IN (switching function Q): see illustration G	XUK8TAKSMM12: +U <sub>B</sub> = Teach-in, -U <sub>B</sub> =  Open = normal function
	XUK8TAKDMM12: +U <sub>B</sub> = -, -U <sub>B</sub> =  Open = normal function
Current consumption	$\leq 60 \text{ mA}$
Switching capacity	$\leq 100 \text{ mA}$
Switching frequency	$\leq 500 \text{ Hz}$
First-up delay	300 ms max.
Response time	1,2 ms max.
Recovery time	1,2 ms max.
Ambient Temperature	Operating : - 20...+60 °C (-4...+140 °F) Storage : - 40...+80 °C (-40...+176 °F)
Power Voltage	Rated operational voltage: 24 Vdc Ripple p-p 10% maximum Operating range: 18...30 Vdc (including ripple)
Product Protection	Power supply : Reverse polarity protection Output: Short circuit protection
Protection class	
Degree of protection	IP67 conforming to EN/IEC 60529 IP69K conforming to DIN 40050
Vibration resistance	Frequency range: 10 Hz to 55 Hz Acceleration: 7 gn
Shock resistance	Peak acceleration: 10 gn Duration of the pulse: 11 ms
Material	Housing: ABS/PC, Lens: PMMA

**Wiring diagrams**



**Detection curves**



**Manufacturer :** Schneider Electric Industries SAS, 35 rue Joseph Monier, 92500 Rueil Malmaison, France

**UK Representative :** Schneider Electric Limited, Stafford Park 5, Telford, TF3 3BL, United Kingdom

**Уполномоченный поставщик в РФ :** АО «Шнейдер Электрик», Адрес: 127018, Россия, г. Москва, ул. Двинцев, д.12, корп.1. Тел.: +7 (495) 777 99 90. Факс +7 (495) 777 99 92

**Қазақстан Республикасында ресми жеткізуші :** ЖШС «Шнейдер Электрик», Мекен-жайы: Қазақстан Республикасы, Алматы қ., Достық даң., «Кен Дала» Бизнес Орталығы, 5-ші қабат. Тел.: +7 (727) 357 23 57. Факс.: +7(727) 357 24 39

**Characteristics**

Certification	CE - UKCA - cULus - Ecolab
Sensing distance (Reference material)	White (90%) 0...5 m / 0...16.4 ft
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Setting	Teach button
Color of detection light beam	Laser class 1, red, 655 nm
Spot size of the light beam	see "Light beam size" curve
Wavelength	$\lambda = 655 \text{ nm}$
Puls duration	$t < 5 \text{ ns}$
Frequency	$f = 62,5 \text{ kHz}$
Limit of radiant power pulse	$P_p < 1,25 \text{ mW}$
Switching output Q	Auto-Detect PNP/NPN (N.O. or N.C.) - IOLINK
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Switching capacity	$\leq 100 \text{ mA}$
Switching frequency	$\leq 500 \text{ Hz}$
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Ambient Temperature	Operating : - 20...+60 °C (-4...+140 °F) Storage : - 40...+80 °C (-40...+176 °F)
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Product Protection	Power supply : Reverse polarity protection Output: Short circuit protection
Protection class	
Degree of protection	IP67 conforming to EN/IEC 60529 IP69K conforming to DIN 40050
Vibration resistance	Frequency range: 10 Hz to 55 Hz Acceleration: 7 gn
Shock resistance	Peak acceleration: 10 gn Duration of the pulse: 11 ms
Material	Housing: ABS/PC, Lens: PMMA

**IO-Link** Data sheet and IODD IO-Link on website: <https://tesensors.com/iolink>

**WARNING**

**UNINTENDED EQUIPMENT OPERATION**

- Comply with the wiring and configuration instructions.
- Clean the lens regularly, taking care not to scratch it.
- Check the connections and fixings during maintenance operations.

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

**CAUTION**

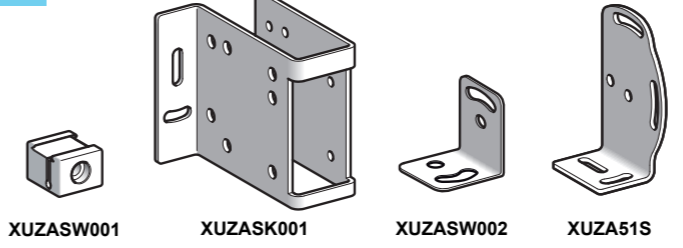
**HAZARD OF LASER RADIATION EXPOSURE**

- Do not stare into the beam.
- Do not operate below - 20°C (- 4°F)
- Follow all operating instructions.

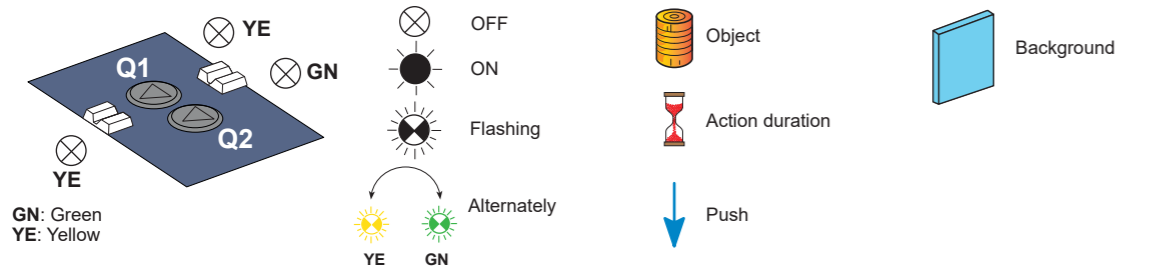
Failure to follow these instructions can result in injury or equipment damage.

CLASS 1 LASER PRODUCT (IEC 60825-1: 2014)  
Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to laser Notice No. 56 dated May, 2019

**Accessories**



Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.



**Setting**  
The sensor has 3 different Teach-in modes. The variant XUK8TAKDMM12 has two switching outputs which can be set independently of one another.

**Standard Teach-in (STI):** is suited for nearly all applications. Setting is made on object and background (see Chapter B).

**Object-Object Teach-in (OTI):** is suited for applications where the background cannot be taught in. Setting is made 2x on the object (see Chapter C).

**Dynamic Teach-in (DTI):** is suited for setting the sensor in the running process (see Chapter D).

**Overview**

Function	Action Step 1 (1)	External teach	See illustration
Switching output 1	press Q <sub>1</sub> > 3 s	connect IN > 3 s	B / C / D
Switching output 2 (2)	press Q <sub>2</sub> > 3 s	connect IN > 6 s	B / C / D
N.O. / N.C. / Antivalent (NO + NC)	press Q > 10 s	connect IN > 10 s	E
Auto-Detect / NPN / PNP	press Q > 13 s	connect IN > 13 s	F

(1) Step 2: press Q<sub>1</sub> (or Q<sub>2</sub>) / connect IN > 1 s  
(2) All XUK8TAKMM12

