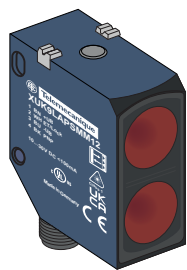


## XUK9LAPSM12 Laser Polarised Reflex sensor, energetic



ECOLAB®



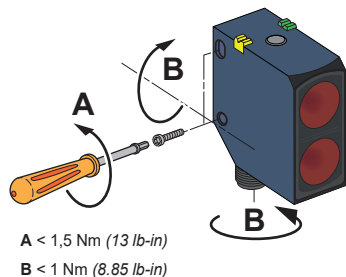
Polarised reflex


<https://tesensors.com/global/en/document/S1B75484>

Scan the QR-code to access this Instruction Sheet in different languages or you can download it from 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.

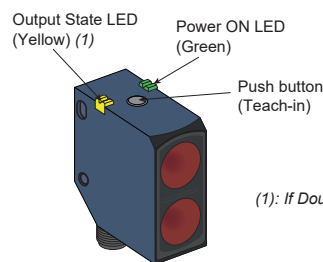
## Mounting and Tightening torques



A &lt; 1,5 Nm (13 lb-in)

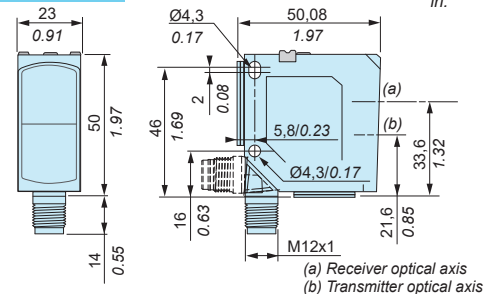
B &lt; 1 Nm (8.85 lb-in)

## LEDs and Setting



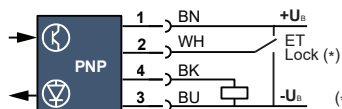
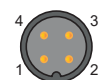
(1): If Double flash = Contamination

## Dimensions



## Wiring diagrams

M12 Connector



(\*) see page 2/2 section C

|    |       |
|----|-------|
| BN | Brown |
| WH | White |
| BK | Black |
| BU | Blue  |

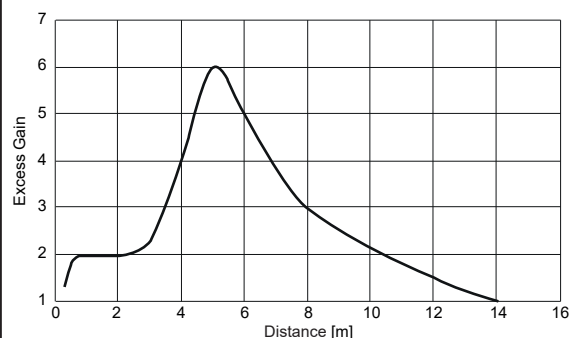


## Wiring precautions

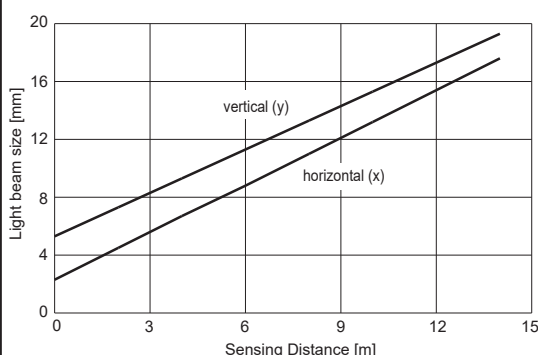
Use certified CYJV or R/C CYJV2 cable assemblies

## Detection curves

## Excess Gain



## Light beam size



## Characteristics

|                               |  |
|-------------------------------|--|
| Certification                 | CE - UKCA - cULus - Ecolab   |
| Sensing distance              | Max. 0,3...14 m / 0.98...45.93 ft  |
| Sn                            | 0,3...12 m / 0.98...39.37 ft (with reflector: <b>XUZC50HP</b> )  |
| Smallest detectable part      | ≤ 2 mm up to 1 m / ≤ 0.08 in up to 39.4 in   |
| Sensing distance setting      | Teach button or control input ET / Lock  |
| Color of detection light beam | Laser class 1, red, 655 nm   |
| Spot size of the light beam   | see "Light beam size" curve  |
| Wavelength                    | λ = 655 nm   |
| Puls duration                 | t = 3,6 μs   |
| Frequency                     | f = 10,75 kHz  |
| Limit of radiant power pulse  | Pp = 1,73 mW   |
| Output type                   | PNP (N.O. or N.C.)   |
| Current consumption           | ≤ 30 mA  |
| Switching capacity            | ≤ 100 mA   |
| Switching frequency           | ≤ 2000 Hz  |
| First-up delay                | 300 ms max.  |
| Response time                 | 2 ms max.  |
| Recovery time                 | 2 ms max.  |
| Ambient Temperature           | Operating : - 20...+60 °C (-4...+140 °F)<br>Storage : - 20...+80 °C (-4...+176 °F)                               |
| Power Voltage                 | Rated operational voltage: 12...24 Vdc Ripple p-p 10% maximum<br>Operating range: 10...30 Vdc (including ripple) |
| Product Protection            | Power supply : Reverse polarity protection<br>Output: Short circuit protection                                   |
| Protection class              | □  |
| Degree of protection          | IP67 conforming to <b>EN/IEC 60529</b><br>IP69K conforming to <b>DIN 40050</b>                                   |
| Vibration resistance          | Frequency range: 10 Hz to 55 Hz<br>Acceleration: 7 gn  |
| Shock resistance              | Peak acceleration: 30 gn<br>Duration of the pulse: 11 ms   |
| Permitted cable length        | 100 m / 328.1 ft   |
| Material                      | Housing: ABS/PC, Lens: PMMA  |
| Factory setting               | max. scanning distance and N.O.  |

## ⚠ 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.

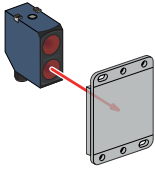


CLASS 1 LASER PRODUCT (DIN EN 60825-1)  
Complies with 21 CFR 1040.10 and 1040.11  
except for deviations pursuant to laser Notice No.  
50 dated June 24, 2007

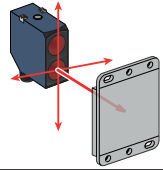
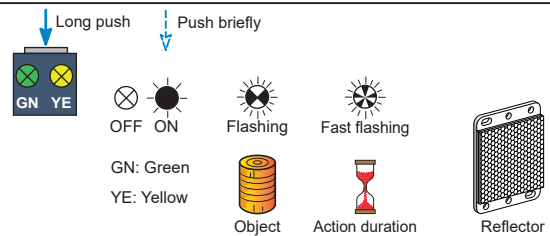
Electrical equipment should be installed, operated and maintained only by qualified personnel.  
No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

© 2022 Schneider Electric. "All Rights Reserved."

## Adjustment and setting

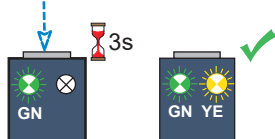
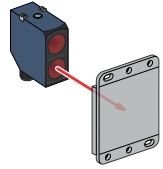


## Legend:



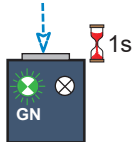
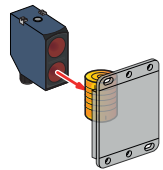
## A Setting of scanning distance

Factory setting = 12 m / 39.4 ft at reflector XUZC50HP.  
Check operation conditions.  
Align light spot to reflector.



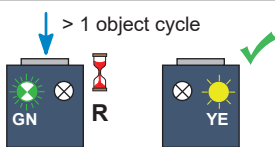
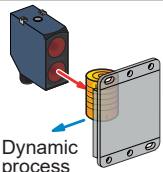
## Setting on object

With free light path, push button (approx. 3 s) until both LEDs flash synchronously.  
Release button (LEDs flash asynchronously).



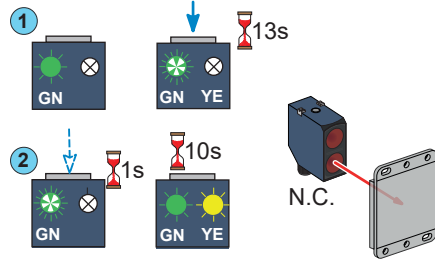
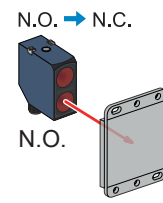
## When object is not moving (static):

Place object in sensing range.  
Push button briefly (1 s).  
Release button. The setting is saved. The sensor is ready for use. If the object is detected, the yellow status LED is on (N.O. setting) or is off (N.C. setting).



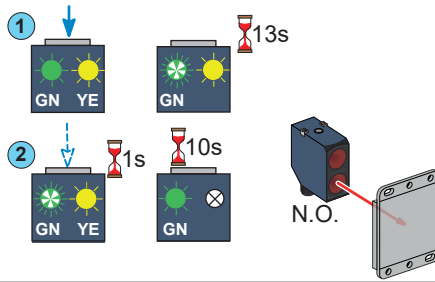
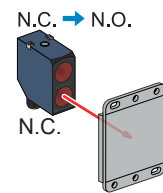
## When object is moving (dynamic):

Press the pushbutton and keep it pressed until the object has passed at least once.  
Release the button. The object and the reflector have been taken into account.  
The setting is saved. The sensor is ready for use.  
If the object is detected, the yellow status LED is on (N.O. setting) or is off (N.C. setting).



## B Setting of N.O. / N.C.

- Without object, press the receiver learning button for (about) 13 s. The green LED flashes rapidly.
  - As long as the green LED is flashing, press the learning button for 1 s to invert the output.  
Without object, yellow LED off = N.O., yellow LED on = N.C.
- When OK, do not push the button for 10 s.  
Setting is saved. Sensor is ready to operate.



## D Setting with input (ET - External Teach / Lock)

+U<sub>B</sub> = Teach-in (as button)  
- U<sub>B</sub> = Button locked  
not connected = Normal operation (free run).



## 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 Республике Казахстан:

ТОО «Шнейдер Электрик»  
Адрес: 050010, РК, г. Алматы, пр. Достык, 38,  
Бизнес Центр «Кен Дала», 5 этаж.  
Тел. +7 (727) 3 57 23 57  
Факс.: +7 (727) 357 24 39

## Қазақстан Республикасында ресми жеткізуші:

ЖШС «Шнейдер Электрик»  
Мекен-жайы: 050010, Қазақстан Республикасы, Алматы қ., Достық даң. 38,  
«Кен Дала» Бизнес Орталығы, 5-ші қабат.  
Тел.: +7 (727) 357 23 57  
Факс.: +7 (727) 357 24 39