PRQ80376

Laser retro-reflective sensors

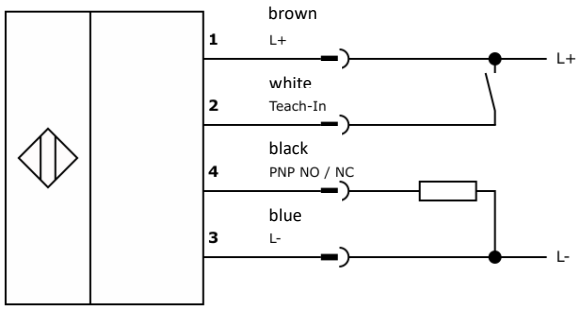
- ✓ **Plastic housing, compact design**
- ✓ **Setting by teach-in**
- ✓ **LED display with setting guide**
- ✓ **M8-connector 4-pole**

Laser protection class 1
Polarizing filter integrated

Technical data

Range	100 … 3,000mm
Operating voltage	10 … 30V DC
Current consumption (without load)	≤ 12mA
Output current (max. load)	≤ 50mA
Output signal	PNP, no/nc
Response / release time	≤ 0.5 ms
Switching frequency	1kHz
Transmitting element (clocked)	Laser diode, red light, pulsed
Light spot size	see diagram
Wavelength	655nm
short-circuit proof	+
reverse polarity protected	+
Display (operation)	LED green (LED 1)
Display (signal)	LED yellow (LED 2)
Material (housing)	Plastic (PUR)
Material (front panel)	PMMA
Protection class (EN60529)	IP 67
Ambient temperature	-20 … +50°C
Connection	M8-connector 4-pole
Connection accessories	e.g. **VK200375**
Mounting accessories (universal holder)	**AY000116**

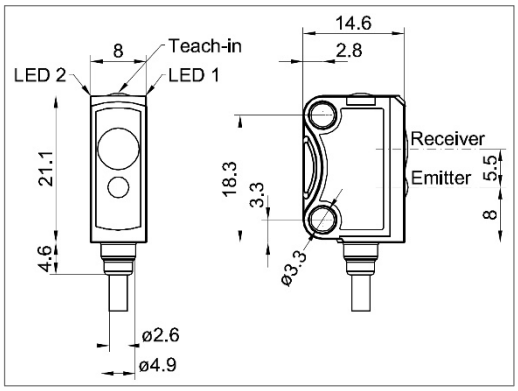
Electrical connection



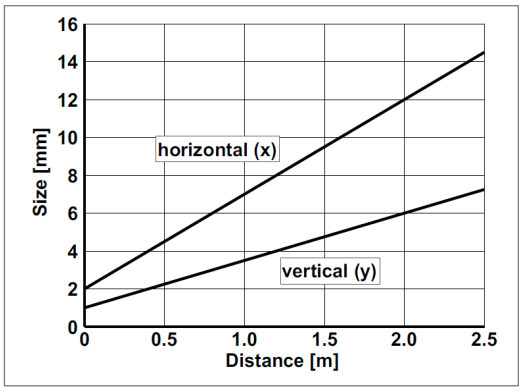
Notes on the connection of the white line (PIN 2)

Connection with L+:	Teach-in analog to the respective specifications for the keystroke
Connection with L-:	Teach button locked
No connection:	Normal operation It is recommended to connect the line to a free terminal during normal operation

Dimensional drawing



Light spot size



Safety instructions

Read the operating instructions before commissioning.

Connection, installation, adjustment and commissioning may only be performed by qualified personnel.

The device must not be used outdoors. Laserschutzklasse 1; Wellenlänge: 655nm; Frequenz; 5kHz, Pulsbreite: 3,2µs; Grenzwert Puls: ≤ 2,3mW (IEC 60825-1)

Complies with 21 CFR 1040.10 and 1040.11 except for deviations as specified in Laser Notice No. 56, May 2019.

Attention! Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure

Before commissioning, please make sure that all safety instructions in the product documentation, if applicable, have been observed!

Not a safety component according to the EU Machinery Directive. The use of these products is prohibited if they have a direct impact on personal safety.

Intended use

The sensor is used for optical non-contact detection.

Connection

Plug the connector onto a suitable cable socket in a voltage-free manner and screw it tight.

Connect the cable according to the connection diagram on page 1.

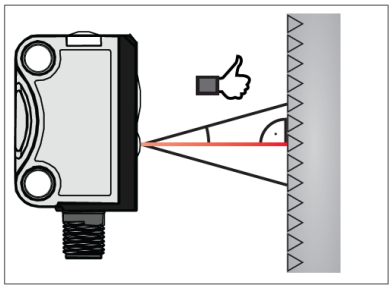
As soon as the operating voltage is applied, the green LED (LED 1) lights up.

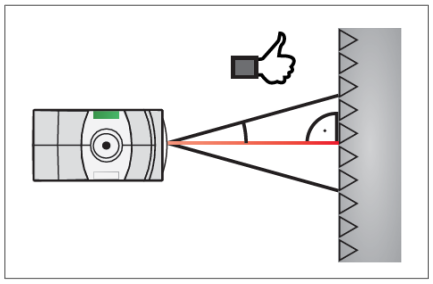
Mounting

Mount the sensor on a suitable holder (e.g. universal holder AY000116)

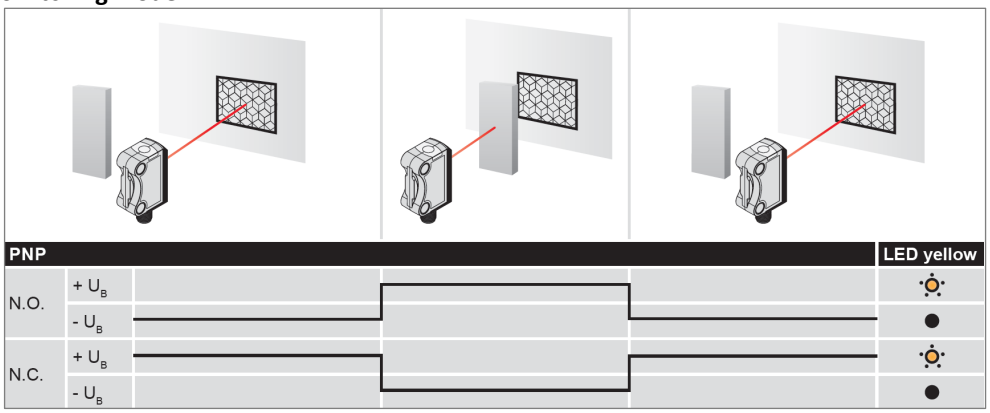
Adjustment

Align the sensor with the reflector so that the light beam impinges at right angles to the reflection plane.





Switching mode



N.O. = normally open

N.C. = normally closed

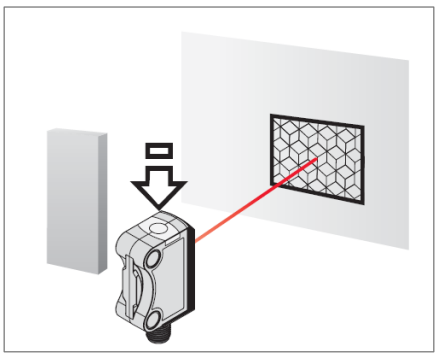
Setting

The sensor is set via teach-in. You can teach-in via the key or by connecting the white line to L+ instead of pressing the key.

Standard teach in:

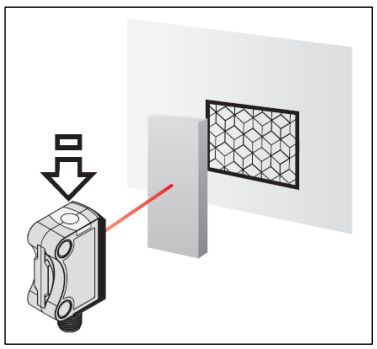
Is suitable for almost any application. The adjustment is made to the reflector and the object.

Step 1: Teach in reflector



Press **the key > 3s** until the green and the yellow LED flash simultaneously. Release the key, the LEDs flash alternately.

Step 2: Teach in object

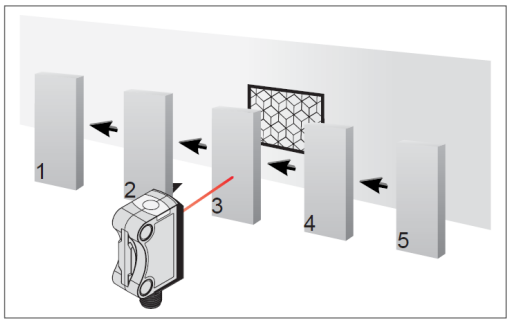


Press **key > 1s**

Dynamic teach in:

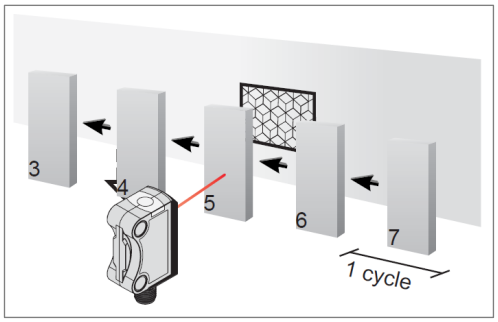
Is suitable to adjust the sensor in the running process, especially for small objects.

Step 1:



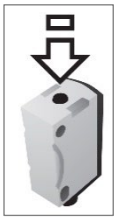
Press **the key > 3s** until the green and the yellow LED flash simultaneously. Release the key, the LEDs flash alternately.

Step 2:



Press the key for the duration of one cycle

Switching N.O. / N.C.



Press **the key > 13s** until the green and yellow LEDs flash rapidly alternately

→ **N.O.**

Green LED flashes
Yellow LED lights up
↓
wait 10s
↓

→

Press key shortly

→ **N.C.**

Green LED flashes
Yellow LED is off
↓
wait 10s
↓

→ **...**