

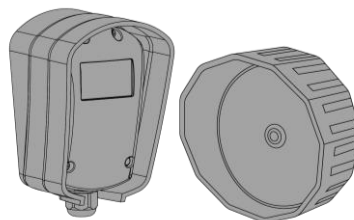
TOPENS[®]

TRF3

Reflection Photocell Sensor User Manual

Product Description

Combines the emitter and receiver into a single sensor with a separate reflector for easy installation. When integrated with an automatic gate or door opener system, it provides an additional layer of safety. If the beam is obstructed, it signals the gate or door to stop or reverse automatically, preventing accidents and damage.



1 SPECIFICATIONS

Detection Method: Retro-Reflective

Max. Sensing Range: 10m (33ft.)

Beam Transmit Angle: Approx. 1.5°

Operating Voltage: 12-30VDC / 12-25VAC

Output Capacity: 3A/24VDC, 3A/120VAC

Working Temperature: -20°C ~ +50°C (0°F to 120°F)

Dimension of the Sensor with Cover: 115 x 65 x 65mm (4.5 x 2.6 x 2.6")

Dimension of the Reflector with Cover: 92 x 90 x 45mm (3.6 x 3.5 x 1.8")

Response Time: 10ms (Max)

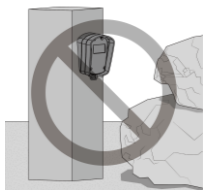
Output: Relay SPDT NO or NC

Protection Degree: IP66

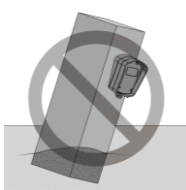
2 WHAT'S IN THE BOX

- ◆ 1 x Retro-Reflective Photocell Sensor
- ◆ 1 x Waterproof Cover for Retro-Reflective Photocell
- ◆ 1 x Reflector
- ◆ 1 x Waterproof Cover for Reflector
- ◆ 1 x Mounting Screws

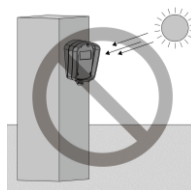
3 IMPORTANT INSTALLATION NOTES



Remove all obstructions between the sensor and the reflector.



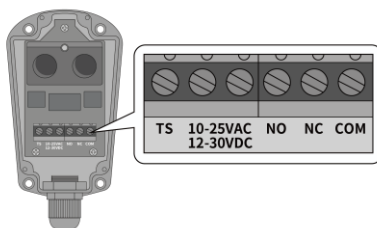
Do not install on unstable surfaces.



Avoid strong light shining directly on the sensor.

4 WIRE CONNECTION WITH TOPENS GATE OR DOOR OPENER

- ◆ The 10-25VAC/12-30VDC terminals are power input for 10-25VAC or 12-30VDC.
- ◆ “NO”, “NC” and “COM” terminals are relay output. “NO” and “COM” is for normal open contact and “NC” and “COM” is for normal close contact.
- ◆ “TS” terminal is used for factory testing.
- ◆ For wire connection, please refer to the connection diagram in the Installation Manual specific to your gate or door opener model.
- ◆ Make sure the power is OFF before making any wire connections.



Notes:

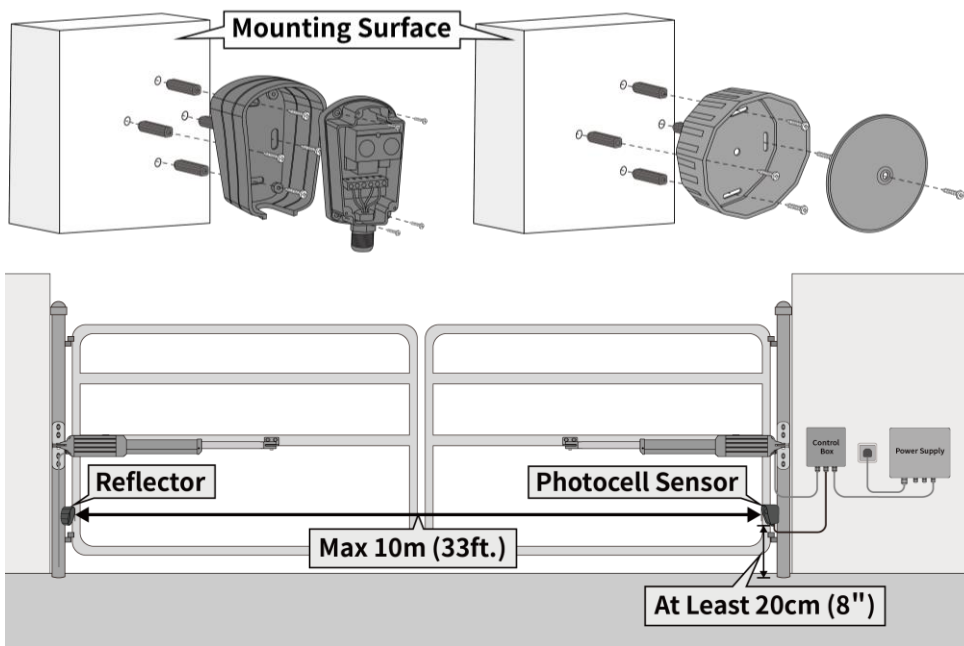
- ◆ A 4C x 0.3 mm² (22AWG) cable is required for the wire connection, but it is NOT included.
- ◆ Keep the wire connection between the sensor and the gate or door opener control board within 10m (33ft.).

5 COMPATIBILITY WITH OTHER BRANDS GATE OR DOOR OPENER

- ◆ Compatible with other brands gate or door opener whose control board accepts “Normal Open or Normal Close Dry Contact” signal.
- ◆ The sensor can be powered by the control board of the gate or door opener or by the external 10-25VAC or 12-30VDC power source.

6 INSTALL THE PHOTOCELL SENSOR AND THE REFLECTOR

- ◆ Mount the sensor at least 20cm (8") above the ground.
- ◆ Drill mounting holes to match the holes on the waterproof cover, secure the cover and the sensor with the included screws.
- ◆ Power on to determine the reflector position. Ensure that there is no obstruction between the sensor and the reflector during alignment.
- ◆ Position the reflector directly opposite the mounted sensor. The working light on the sensor turns to Green when the reflector is in the correct position. Fine tune the sensor alignment if necessary.
- ◆ Once the reflector installation position is determined, drill mounting holes to match the holes on the waterproof cover, secure the cover and the reflector with the included screws.
- ◆ Sensing range may be affected in extreme weather conditions, the maximum distance between the sensor and the reflector is 10m (33ft.).

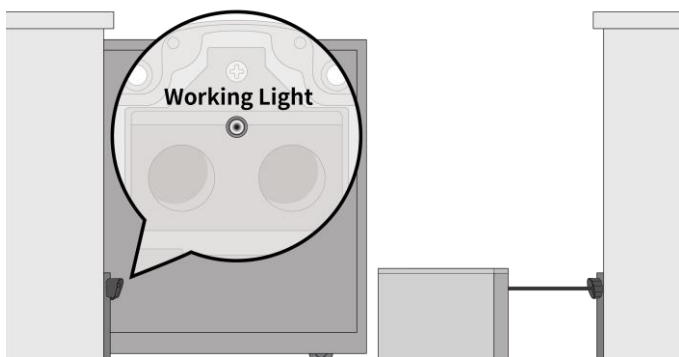


Note: For some TOPENS swing gate openers, observe the GREEN light with a press of the remote control to confirm the reflector's ideal position.

7 TEST BEAM OBSTRUCTION

Note: Set the control board to enable the photocell sensor function if needed (Refer to the Installation Manual specific to your gate or door opener model).

- ◆ Turn on the power and operate the opener. Observe the working light on the sensor, the working light should remain GREEN with no obstruction during operation.
- ◆ To test the system, place an obstruction in the beam's path. If the working light turns from GREEN to RED and the gate or door stops or reverses (please note that the obstruction reaction depends on the opener's control board), the sensor is correctly installed and functioning properly.



Feedback & Review

Your comments and suggestions are important to us as they help us provide the best possible service. Should you have any need to contact us, the info below will help you get in touch:



TOPENS Website

www.topens.com

Contact Us:

E-mail: support@topens.com

Kindly include your purchase channel, order #, gate information, issue description and your contact information. All your concerns will be replied within 24 hours.

Tel: +1 (888) 750 9899 (Toll Free USA & Canada)