

Popp PTC

POPP PTC Electric Photoelectric/Twilight Light Sensor 10A IP65
Outdoor User Manual
Model: PTC

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your POPP PTC Electric Photoelectric/Twilight Light Sensor. This device is designed to automatically control outdoor lighting based on ambient light levels, ensuring illumination when it gets dark and switching off at dawn. Please read this manual thoroughly before installation and retain it for future reference.

2. SAFETY INFORMATION

WARNING: Electrical installation should only be performed by a qualified electrician in accordance with all local and national electrical codes. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect power at the circuit breaker or fuse box before installing or servicing the device.
- Ensure the supply voltage matches the device's specifications (220 Volts).
- Do not exceed the maximum switching power of 2300W or rated current of 10 Amperes.
- This device is rated IP65 for outdoor use, providing protection against dust and water jets. However, avoid submerging the device in water.
- Keep children away from electrical components.

3. PRODUCT OVERVIEW

The POPP PTC Photoelectric/Twilight Light Sensor is designed for reliable outdoor lighting control. Its robust IP65 housing makes it suitable for various external applications, such as building facades, gardens, and pathways. The sensor automatically detects ambient light levels to switch connected lighting on or off.

Key Features:

- **Adjustable Sensor:** Sensitivity can be individually adjusted between 5 and 50 lux.
- **High Switching Power:** Supports a maximum switching power of 2300W.
- **Automatic Lighting:** Ensures automatic illumination when it gets dark.
- **IP65 Protection:** Suitable for outdoor use, resistant to dust and water jets.



Figure 1: Side view of the POPP PTC Electric Photoelectric/Twilight Light Sensor. This image shows the white dome sensor, black base, and cable gland, along with the mounting bracket.

4. PACKAGE CONTENTS

- 1 x POPP PTC Electric Photoelectric/Twilight Light Sensor (Switch)

5. SETUP AND INSTALLATION

5.1 Mounting

The sensor is designed for surface mounting using screws. Choose a location that is exposed to natural light and not obstructed by eaves, trees, or other objects that could cast shadows, especially during twilight hours. Avoid mounting near artificial light sources that could interfere with its operation.

1. Securely attach the sensor to a stable surface using appropriate screws for the mounting material.
2. Ensure the sensor's dome is facing upwards or outwards to accurately detect ambient light.

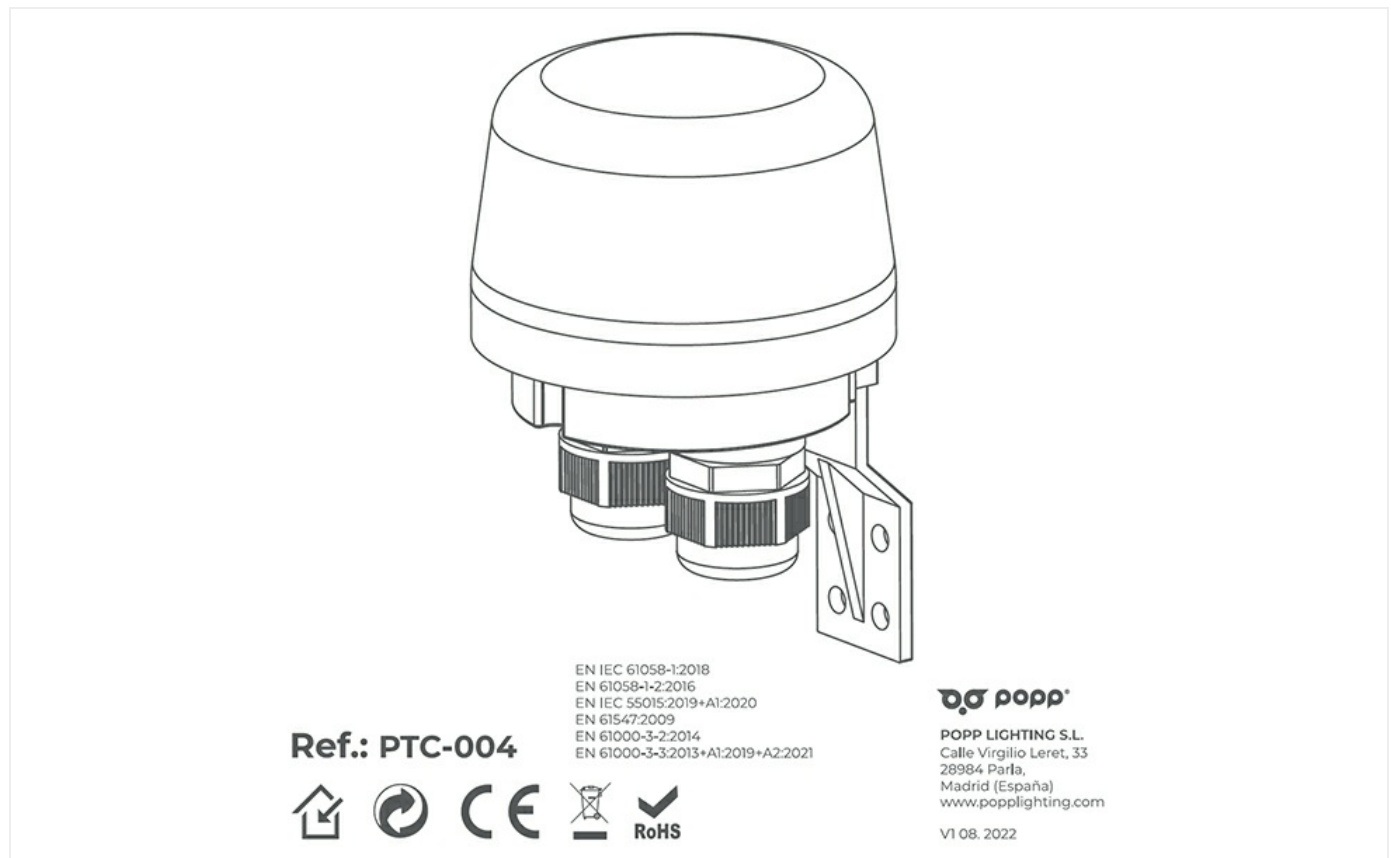


Figure 2: Technical drawing illustrating the dimensions and certifications of the POPP PTC sensor, useful for planning installation.

5.2 Wiring

Before wiring, ensure the power supply is disconnected. The sensor uses a 1-way circuit with screw terminals for connection. Refer to the wiring diagram below for correct connections.



Figure 3: Internal view of the sensor base showing the screw terminals and wiring diagram. Connect Live (L), Neutral (N), and Load (L') as indicated.

- Connect the incoming **Live (L)** wire to the terminal marked 'L'.
- Connect the incoming **Neutral (N)** wire to the terminal marked 'N'.
- Connect the **Load (L')** wire (to your light fixture) to the terminal marked 'LOAD' or 'L'.
- Ensure all connections are secure and properly insulated.
- After wiring, reassemble the sensor housing, ensuring a tight seal to maintain its IP65 rating.

5.3 Sensitivity Adjustment

The sensor's twilight threshold can be adjusted to suit your specific needs, typically between 5 and 50 lux. This adjustment is usually done via a small potentiometer located inside the sensor housing. You may need to open the sensor carefully to access this adjustment screw.

- With power disconnected, carefully open the sensor housing.
- Locate the adjustment screw/dial.
- Turn the screw clockwise to increase the lux threshold (lights turn on later/at darker conditions) or counter-clockwise to decrease it (lights turn on earlier/at brighter conditions).

- Close the housing securely and restore power to test the setting. Repeat adjustment if necessary.

6. OPERATING INSTRUCTIONS

Once installed and configured, the POPP PTC sensor operates automatically. It functions in an ON-OFF mode based on the ambient light level and the set sensitivity threshold.

- **Automatic ON:** When the ambient light level falls below the set lux threshold (e.g., at dusk), the sensor will automatically switch on the connected lighting.
- **Automatic OFF:** When the ambient light level rises above the set lux threshold (e.g., at dawn), the sensor will automatically switch off the connected lighting.

There is typically a small delay in switching to prevent false triggers from sudden light changes (e.g., car headlights). This ensures stable operation.

7. MAINTENANCE

The POPP PTC sensor requires minimal maintenance. Regular inspection can help ensure optimal performance.

- **Cleaning:** Periodically clean the sensor's dome with a soft, damp cloth to remove dust, dirt, or debris that might obstruct light detection. Do not use abrasive cleaners.
- **Inspection:** Annually inspect the wiring and housing for any signs of damage, wear, or loose connections. Ensure the housing remains securely sealed.
- **Environmental Factors:** Ensure no new obstructions (e.g., growing foliage) are blocking the sensor's view of natural light.

8. TROUBLESHOOTING

If you experience issues with your POPP PTC sensor, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Lights do not turn on at dusk.	◦ No power to the sensor. ◦ Incorrect wiring. ◦ Sensor dome is dirty or obstructed. ◦ Sensitivity set too high (requires very dark conditions). ◦ Faulty light fixture/bulb.	◦ Check circuit breaker and power supply. ◦ Verify wiring against diagram (Section 5.2). ◦ Clean sensor dome; remove obstructions. ◦ Adjust sensitivity lower (Section 5.3). ◦ Test light fixture with direct power.
Lights do not turn off at dawn.	◦ Sensor dome is dirty or obstructed. ◦ Sensitivity set too low (requires very bright conditions). ◦ Interference from nearby artificial light.	◦ Clean sensor dome; remove obstructions. ◦ Adjust sensitivity higher (Section 5.3). ◦ Relocate sensor away from artificial light sources.
Lights flicker or switch erratically.	◦ Interference from flickering light sources. ◦ Loose wiring connections. ◦ Sensor defect.	◦ Check for external light interference. ◦ Inspect and secure all wiring connections (power off). ◦ Contact support if problem persists.

9. SPECIFICATIONS

Parameter	Value
Model Number	PTC
Manufacturer	POPP
Voltage	220 Volts
Operating Voltage	220 Volts
Rated Current	10 Amperes
Electrical Power	2300 Watts (Max. Switching Power)
Operating Mode	ON-OFF
Switch Type	Twilight Switch (Photoelectric Sensor)
Contact Type	Normally Open
Circuit Type	1 Way
Installation Method	Screwed (Surface Mount)
Connector Type	Screws (Terminal)
Material	Plastic
Protection Rating	IP65
Product Dimensions (L x W x H)	9.2 x 7.8 x 10 cm
Product Weight	150 g
Batteries Required	No

10. WARRANTY INFORMATION

POPP products are manufactured to high-quality standards. This product is covered by a standard manufacturer's warranty against defects in materials and workmanship. The warranty period typically begins from the date of purchase. Please retain your proof of purchase for any warranty claims. For specific warranty terms and conditions, refer to the documentation provided with your purchase or contact POPP customer support.

11. SUPPORT

If you have any questions, require technical assistance, or need to report an issue with your POPP PTC Electric Photoelectric/Twilight Light Sensor, please contact POPP customer support. You can typically find contact information on the product packaging or the official POPP website.

For further assistance, please visit the official POPP website or consult your retailer.

ASK A QUESTION ABOUT THIS MANUAL

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and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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