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> Beninca Pupilla Safety Photocell Instruction Manual

## BENINCA Pupilla

# Beninca Pupilla Safety Photocell Instruction Manual

Model: Pupilla

## 1. PRODUCT OVERVIEW

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The Beninca Pupilla safety photocells are essential components for automated gate and door systems, designed to enhance safety by detecting obstacles in the path of movement. This pair of photocells creates an infrared beam, triggering a safety mechanism in your BENINCA motor when the beam is interrupted. They are built for outdoor installation and feature a 180-degree swivel capability for flexible positioning.



*Figure 1: Beninca Pupilla Safety Photocell Units.* This image displays the two Beninca Pupilla safety photocell units. Each unit is black, rectangular with rounded edges, and features the 'BENINCA' logo vertically on its lower half. These units are designed to be installed opposite each other to create an infrared beam for obstacle detection in gate or door automation systems.

## 2. SETUP AND INSTALLATION

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Proper installation of the Beninca Pupilla photocells is crucial for optimal performance and safety. These photocells are designed for outdoor mounting and are compatible with standard BENINCA gate and door automation systems.

### 2.1. Mounting Location

- Choose a location where the photocells can be mounted securely and face each other without obstruction.
- Ensure the path between the two photocells is clear of any permanent obstacles.
- The photocells have a 180-degree swivel capability, allowing for precise alignment even if mounting surfaces are not perfectly parallel.

### 2.2. Wiring

Connect the photocells to your BENINCA motor's control unit according to the wiring diagram provided with your motor or the specific photocell wiring instructions (if available separately). The photocells activate a potential-free changeover contact on your motor.

## 2.3. Alignment

After mounting, carefully align the transmitter and receiver units to ensure the infrared beam is correctly established. Most photocells have an indicator light to confirm proper alignment. The effective range for obstacle detection is up to 10 meters.

## 3. OPERATING PRINCIPLES

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The Beninca Pupilla photocells operate by emitting an invisible infrared beam from one unit (transmitter) to the other (receiver). When this beam is interrupted by an object or person, the receiver signals the BENINCA motor's control unit. This signal triggers the motor's safety function, typically stopping or reversing the gate/door movement to prevent impact.

- **Beam Interruption:** An object breaking the infrared beam causes the safety mechanism to activate.
- **Anti-Crossing Range:** The photocells provide an anti-crossing detection range of up to 10 meters, ensuring a wide safety zone.
- **Integration:** Seamlessly integrates with BENINCA automation systems to provide reliable obstacle detection.

## 4. MAINTENANCE

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Regular maintenance ensures the longevity and reliable operation of your Beninca Pupilla photocells.

- **Cleaning:** Periodically clean the lenses of both photocell units with a soft, damp cloth to remove dirt, dust, or debris that may obstruct the infrared beam. Avoid abrasive cleaners.
- **Alignment Check:** Occasionally verify that the photocells remain properly aligned. Misalignment can occur due to vibrations or minor impacts.
- **Cable Inspection:** Check the wiring for any signs of wear, damage, or loose connections. Ensure all connections are secure and protected from the elements.
- **Functionality Test:** Regularly test the safety function by intentionally interrupting the beam with a non-damaging object (e.g., a cardboard box) to ensure the gate/door reacts as expected.

## 5. TROUBLESHOOTING

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If your Beninca Pupilla photocells are not functioning correctly, consider the following common issues and solutions:

Problem	Possible Cause	Solution
Gate/Door does not close or reverses unexpectedly.	Beam obstructed, misaligned photocells, dirty lenses, wiring issue.	Clear any obstructions. Re-align photocells. Clean lenses. Check wiring connections.
Photocell indicator light is off.	No power, faulty unit, severe misalignment.	Verify power supply to the photocells. Check wiring. Ensure proper alignment. If problem persists, unit may be faulty.
Intermittent operation.	Loose connections, intermittent obstruction (e.g., swaying branches), environmental interference.	Secure all wiring connections. Remove any potential intermittent obstructions. Consult a professional if environmental interference is suspected.

If you are unable to resolve the issue after following these steps, it is recommended to contact a qualified technician or BENINCA customer support.

## 6. SPECIFICATIONS

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Feature	Detail
Product Name	Pupilla Safety Photocell
Brand	BENINCA
Detection Range	Up to 10 meters (anti-crossing)
Mounting Type	Outdoor, Swivel up to 180 degrees
Compatibility	Standard BENINCA automation systems
Dimensions (Packaging)	11.8 x 9.3 x 4.4 cm
Item Weight	100 grams
Batteries Required	No

## 7. WARRANTY AND SUPPORT

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For warranty information, please refer to the documentation provided at the time of purchase or contact your BENINCA dealer. For technical support or further assistance, please reach out to BENINCA customer service or visit their official website.

*Note: The product manual is available for download from the manufacturer's official website.*

