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Greluma ZL778LUM

Greluma ZL778LUM Ceiling Mount PIR Motion Sensor User Manual

Model: ZL778LUM

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Greluma ZL778LUM Ceiling Mount PIR Motion Sensor. This device is designed to detect human movement by sensing infrared radiation, automatically controlling lighting or other connected loads. It features a 360° detection range and adjustable settings for optimal performance in various indoor environments.

2. SAFETY INFORMATION

Please read all safety instructions carefully before installation and use. Failure to follow these instructions may result in electric shock, fire, or other hazards.

- Installation must be performed by a qualified electrician in accordance with local electrical codes and regulations.
- Disconnect power at the circuit breaker before installing or servicing the sensor.
- Do not install the sensor near heat sources, air conditioning vents, or in direct sunlight, as this may affect its performance.
- Ensure the operating voltage (220-240V) matches your electrical supply.
- This product is designed for indoor use only.

3. PRODUCT OVERVIEW

The Greluma ZL778LUM is a passive infrared (PIR) motion sensor designed for ceiling mounting. It offers a wide detection area and customizable settings to suit various applications.



Figure 3.1: Front view of the Greluma ZL778LUM motion sensor.

Key Features:

- **Wide Detection Range:** Optimal motion detection with a 360° field of view and a maximum range of 6 meters.
- **Adjustable Light Sensor (LUX):** Configurable light sensitivity from 10 Lux (moon symbol) to 2000 Lux (sun symbol). This allows the sensor to operate only in darkness, or both day and night.
- **Adjustable Time Delay (TIME):** Set the duration the connected light remains on after motion detection, from 10 seconds to 7 minutes. The timer resets with continuous motion.
- **Adjustable Sensitivity (SENS):** Control the detection distance by rotating the knob clockwise to increase sensitivity or counter-clockwise to decrease it.
- **Versatile Applications:** Suitable for various indoor locations such as garages, corridors, basements, stairwells, kitchens, wardrobes, and attics.

Product Description

The sensor is suitable for home lights, indoor and outdoor lamps and lanterns. Can be adjusted for all-day use, or night use, when someone enters the switch sensing range, the sensor detects the change of human infrared spectrum, the switch automatically connects to the load, people to the light on, people away from the light off, friendly and convenient, safe and energy-saving.

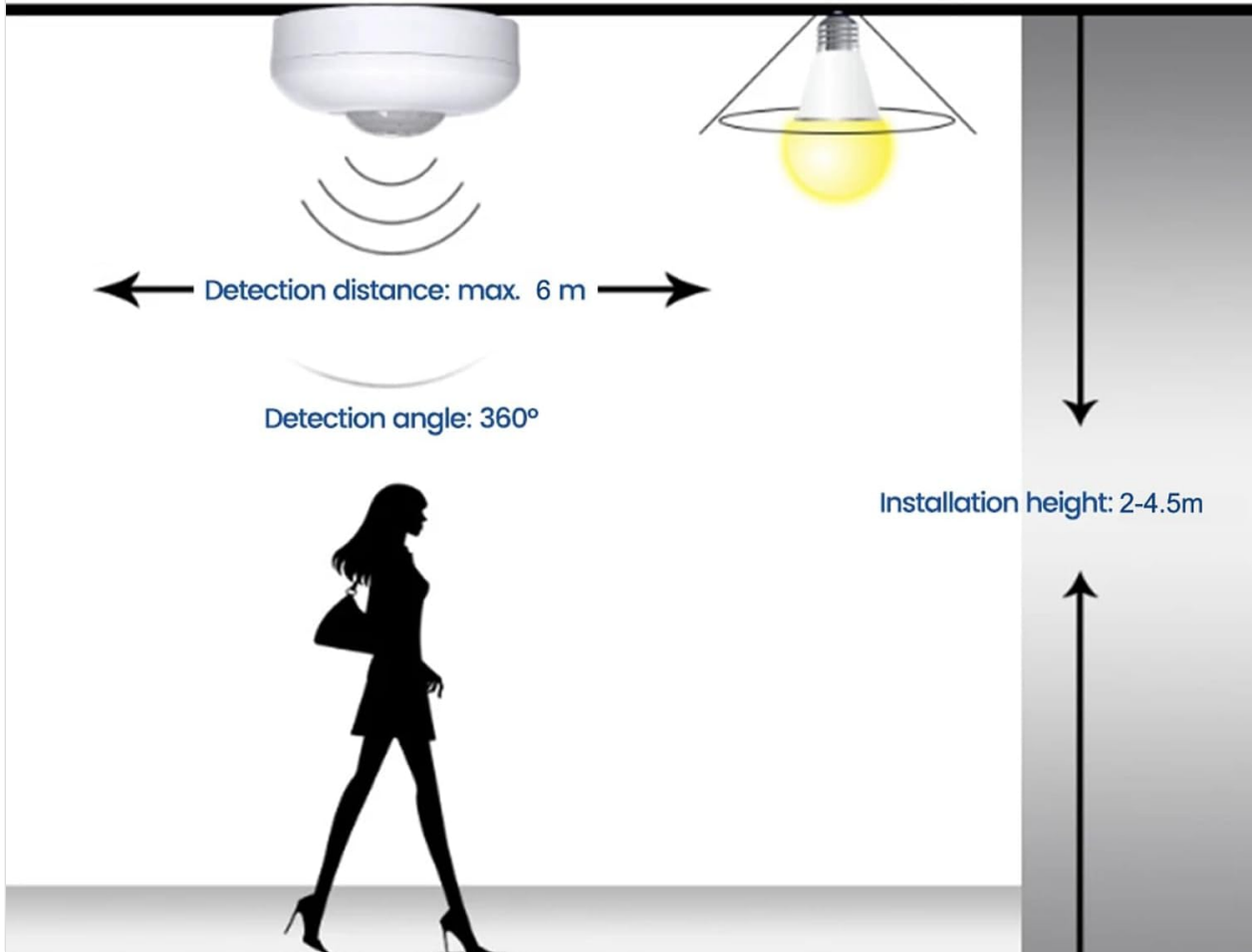


Figure 3.2: Illustration of the sensor's 360° detection angle, 6m maximum detection distance, and recommended installation height of 2-4.5 meters.

Scene display

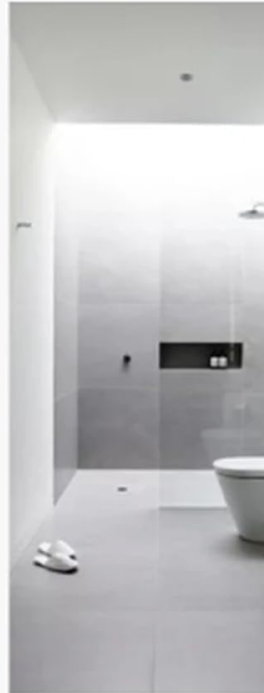
Can be used in various buildings such as stairs, aisles, room blocks
Switching control of low-voltage lamps in public places



■ Balcony



■ Aisle



■ Bathroom



■ Eaves

Figure 3.3: Examples of typical installation locations including balconies, aisles, bathrooms, and eaves.

4. SPECIFICATIONS

Parameter	Value
Brand	Greluma
Model Number	ZL778LUM
Power Source	Wired Electric (AC 220-240V)
Detection Range	Max 6 meters
Detection Angle	360°
Mounting Type	Ceiling Mount
Light Sensor (LUX)	Adjustable 10-2000 Lux
Time Delay (TIME)	Adjustable 10 seconds - 7 minutes
Sensitivity (SENS)	Adjustable
Operating Temperature	15°C
Compatible Devices	Smart Home Hubs, Lighting Controls
Dimensions	115mm (4.53") diameter, 57mm (2.24") height

5. SETUP AND INSTALLATION

Before proceeding with installation, ensure the power supply is disconnected at the main circuit breaker.

5.1 Mounting the Sensor

The sensor is designed for ceiling mount installation. Choose a location that provides an unobstructed view of the area to be monitored and is within the recommended installation height of 2 to 4.5 meters.

1. Separate the mounting base from the sensor unit.
2. Position the mounting base on the ceiling at the desired location. Mark the drilling points.
3. Drill holes and insert wall plugs (if necessary for your ceiling material).
4. Secure the mounting base to the ceiling using screws.

5.2 Wiring Instructions

Refer to the wiring diagram below for correct electrical connections. Incorrect wiring can damage the sensor or connected devices.



Figure 5.1: Rear view of the sensor with terminal block for electrical connections.

How to Use

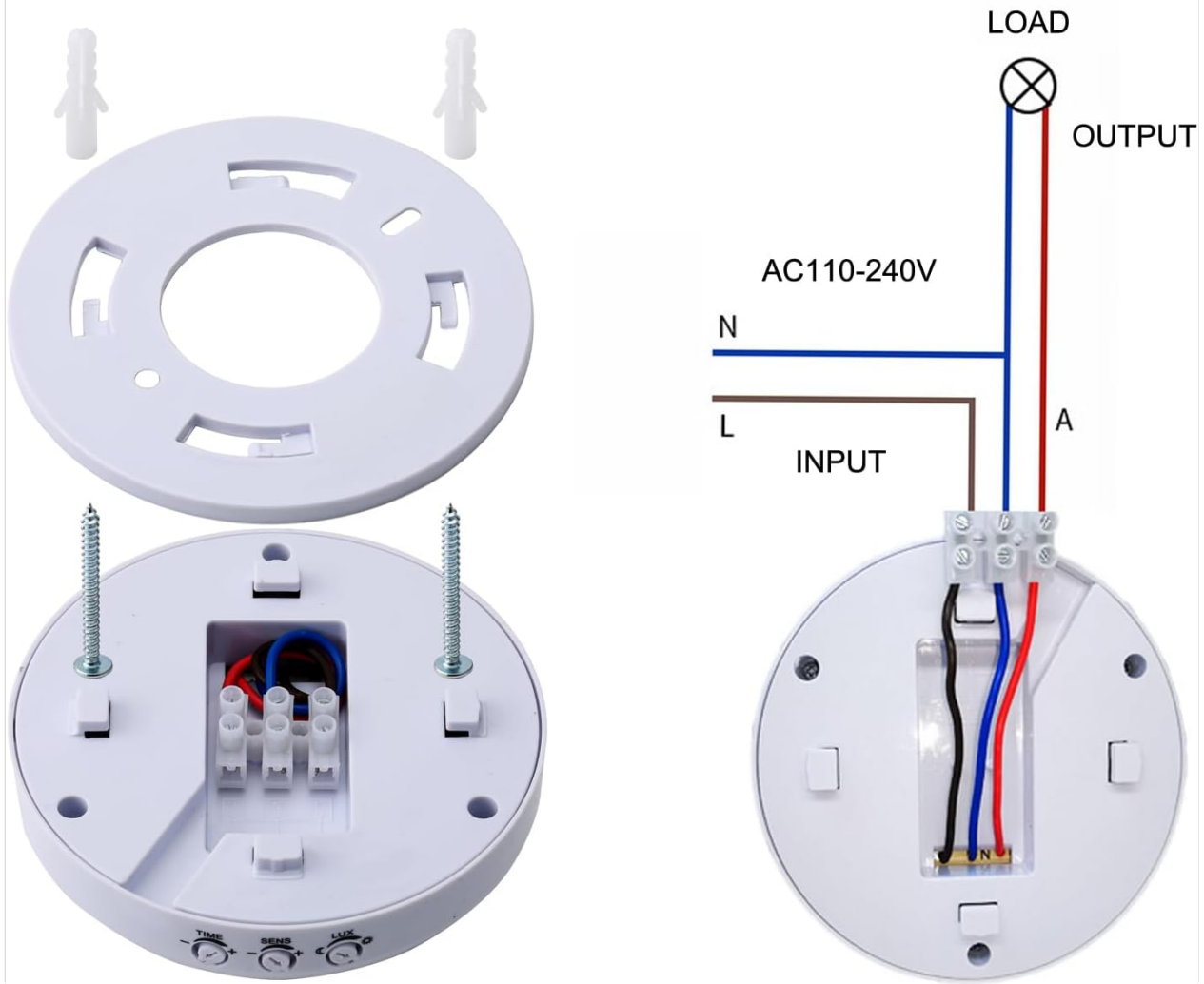


Figure 5.2: Detailed wiring diagram showing input (AC110-240V, N, L) and output (LOAD, A) connections.

- Connect the Neutral (N) wire from your power supply to the 'N' terminal on the sensor.
- Connect the Live (L) wire from your power supply to the 'L' terminal on the sensor.
- Connect the Neutral wire of your load (e.g., light fixture) to the 'N' terminal on the sensor (often shared with input neutral).
- Connect the Live wire of your load to the 'A' (Output) terminal on the sensor.
- After wiring, carefully attach the sensor unit to the mounted base, ensuring it is securely fastened.

Important: Ensure all connections are secure and insulated. Restore power only after the installation is complete and verified.

6. OPERATING INSTRUCTIONS AND ADJUSTMENTS

The Greluma ZL778LUM sensor features three adjustable knobs for customizing its operation: TIME, SENS, and LUX.

Function

TIME 5sec ~ 7min, you can set the delay time to your demand. Time-Delay is added continually, when the ceiling mount occupancy sensor receives the second induction signals after the first induction, it will re-calculate time once more.

SENS: Rotate clockwise to increase the sensing distance, and counterclockwise to reduce the sensing distance.

LUX: On the "sun" position(max LUX value), can both work at daytime and night; "moon" position(min), it works when ambient light is less than 3Lux.



Figure 6.1: Location of the TIME, SENS, and LUX adjustment knobs on the sensor.

6.1 TIME (Time Delay) Adjustment

This knob controls how long the connected light remains on after motion is detected and then stops. The range is approximately 10 seconds to 7 minutes.

- Rotate clockwise (+) to increase the time delay.
- Rotate counter-clockwise (-) to decrease the time delay.
- If motion is detected again before the set time expires, the timer will restart.

6.2 SENS (Sensitivity) Adjustment

This knob adjusts the detection distance of the sensor.

- Rotate clockwise (+) to increase the detection distance (maximum 6 meters).
- Rotate counter-clockwise (-) to decrease the detection distance.

6.3 LUX (Light Sensor) Adjustment

This knob determines the ambient light level at which the sensor will activate. This allows you to choose whether the sensor operates during the day, at night, or both.

- **"Sun" Position (Max LUX, ~2000 Lux):** The sensor will operate both during the day and at night,

regardless of ambient light.

- **"Moon" Position (Min LUX, <3 Lux):** The sensor will only activate when the ambient light level is below approximately 3 Lux, meaning it will only operate in dark conditions (e.g., at night).
- Adjust the knob to your desired light threshold.

7. MAINTENANCE

The Greluma ZL778LUM motion sensor requires minimal maintenance.

- Ensure the sensor lens is kept clean and free from dust or obstructions. Use a soft, dry cloth for cleaning.
- Do not use abrasive cleaners or solvents, as these can damage the sensor's surface.
- Periodically check electrical connections for any signs of wear or loosening. Disconnect power before inspection.

8. TROUBLESHOOTING

If you experience issues with your Greluma ZL778LUM motion sensor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Light does not turn on when motion is detected.	<ul style="list-style-type: none"> ◦ No power to the sensor. ◦ Incorrect LUX setting (set to "Moon" during daytime). ◦ Sensor sensitivity (SENS) is too low. ◦ Wiring error. ◦ Faulty bulb/load. 	<ul style="list-style-type: none"> ◦ Check circuit breaker and power connections. ◦ Adjust LUX setting towards "Sun" or test at night. ◦ Increase SENS setting. ◦ Verify wiring according to diagram (Section 5.2). ◦ Test the load (light) independently.
Light stays on continuously.	<ul style="list-style-type: none"> ◦ Constant motion in detection area. ◦ Sensor is faulty. ◦ Wiring error (e.g., load directly connected to live). 	<ul style="list-style-type: none"> ◦ Ensure no continuous movement or heat sources are triggering the sensor. ◦ Contact customer support if other solutions fail. ◦ Verify wiring according to diagram (Section 5.2).
Light turns off too quickly or too slowly.	<ul style="list-style-type: none"> ◦ Incorrect TIME setting. 	<ul style="list-style-type: none"> ◦ Adjust the TIME knob to your desired duration (Section 6.1).
Sensor detects motion inconsistently or too far/close.	<ul style="list-style-type: none"> ◦ Incorrect SENS setting. ◦ Obstructions in detection path. ◦ Environmental factors (heat, drafts). 	<ul style="list-style-type: none"> ◦ Adjust the SENS knob (Section 6.2). ◦ Clear any objects blocking the sensor's view. ◦ Relocate the sensor away from heat sources or strong air currents.

9. WARRANTY AND SUPPORT

Greluma products are manufactured to high-quality standards. For warranty information or technical support, please refer to the retailer where the product was purchased or visit the official Greluma website for contact details. Please have your model number (ZL778LUM) and purchase information ready when contacting support.