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› V-TAC VT-5087 PIR Infrared Motion Sensor User Manual

V-TAC 5087

V-TAC VT-5087 PIR Infrared Motion Sensor User Manual

Model: VT-5087 | Brand: V-TAC

INTRODUCTION

This manual provides comprehensive instructions for the safe installation, operation, and maintenance of your V-TAC VT-5087 PIR Infrared Motion Sensor. Please read this manual carefully before installation and retain it for future reference. This sensor is designed for ceiling mounting and automatically controls lighting based on detected motion.

Key Features

- PIR (Passive Infrared) Motion Detection
- 360-degree Detection Angle
- Ceiling Mount Design
- Adjustable LUX (Ambient Light) Sensitivity
- Adjustable TIME Delay
- Maximum Load: 1000W (LED) / 2000W (Traditional Lighting)



Figure 1: V-TAC VT-5087 PIR Infrared Motion Sensor. This image highlights the sensor's capabilities, including a maximum load of 1000W for LED lighting, automatic on/off based on motion, and a 'SUN' setting for daylight operation (only works when natural light is 3 lux or less). Detection motion speed is 0.6-1.5m/s.

SETUP AND INSTALLATION

Important Safety Information: Installation must be performed by a qualified electrician and in accordance with all local electrical codes. Ensure power is disconnected at the circuit breaker before beginning installation to prevent electric shock.

Mounting Location

- Choose a ceiling location where the sensor can cover the desired detection area without obstruction.
- Avoid mounting near heat sources (e.g., air vents, heaters) or direct sunlight, as these can cause false triggers.
- Ensure the mounting surface is stable and can support the sensor.

Wiring Instructions

1. Turn off the main power supply at the circuit breaker.
2. Carefully remove the outer casing of the sensor to access the wiring terminals.

3. Connect the live (L), neutral (N), and load (L') wires according to the diagram provided on the sensor or in the packaging. Typically:
 - **L**: Live input from power supply
 - **N**: Neutral input from power supply and neutral to load
 - **L'**: Switched live output to the light fixture (load)
4. Securely fasten the sensor to the ceiling using the provided screws and anchors.
5. Replace the outer casing.
6. Restore power and test the sensor.



Figure 2: Rear view of the sensor, illustrating the wiring terminals (L, N, L') and the LUX and TIME adjustment knobs. Mounting screws and wall anchors are also shown.

OPERATING INSTRUCTIONS

The V-TAC VT-5087 sensor features two adjustable controls: LUX and TIME. These allow you to customize the sensor's behavior to suit your environment and preferences.

Adjustment Knobs

- **LUX Control:** This knob adjusts the ambient light threshold at which the sensor will activate.
 - Turn towards the **SUN** symbol for activation in both daylight and darkness (e.g., >2000 LUX).
 - Turn towards the **MOON** symbol for activation only in low light conditions (e.g., <3 LUX).
- **TIME Control:** This knob sets the duration the light remains on after motion is detected and then stops.
 - Adjust from minimum (approx. 10 seconds) to maximum (approx. 15 minutes).
 - The timer resets if motion is detected again before the set time expires.

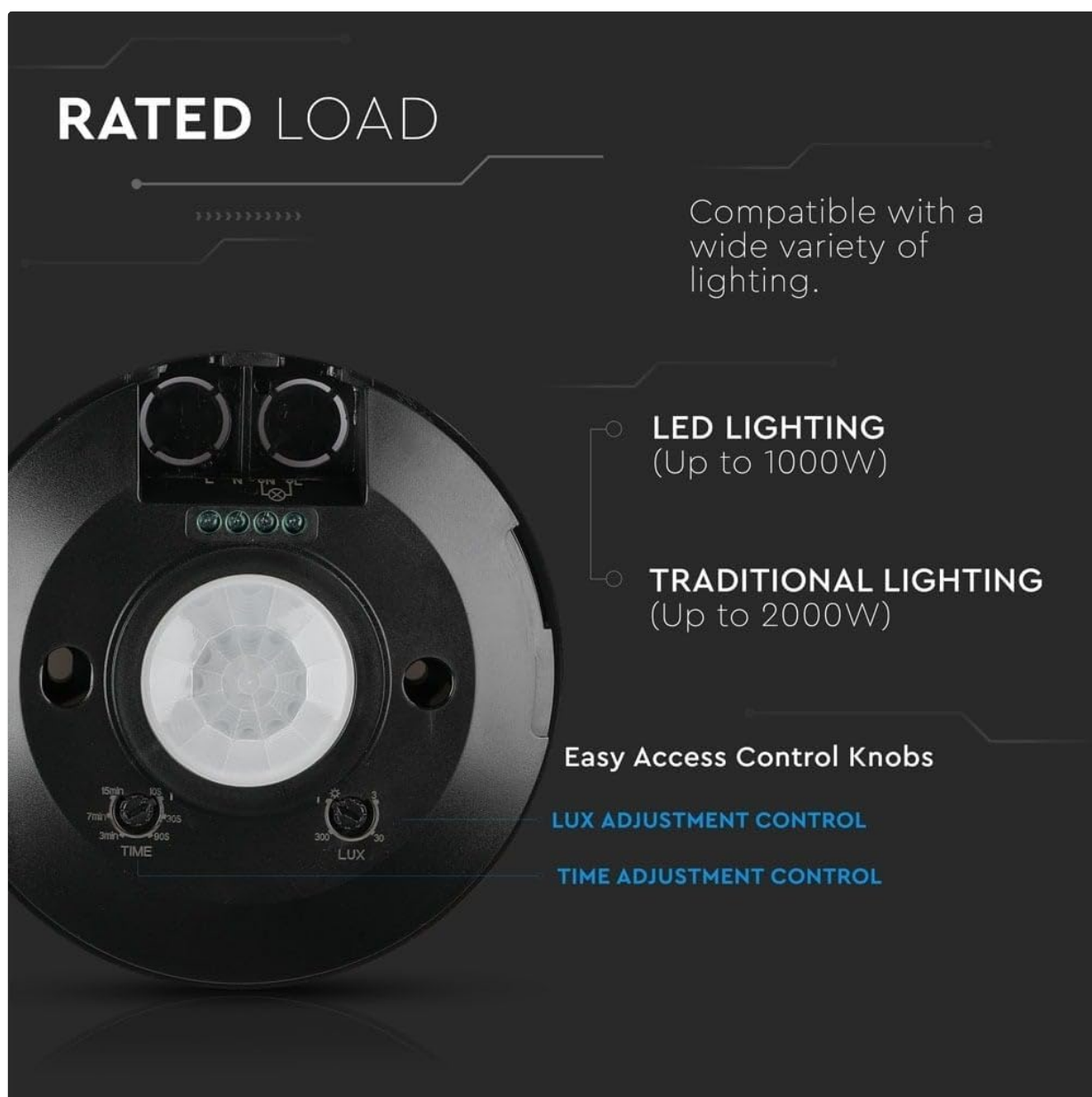


Figure 3: Detailed view of the easy-access control knobs for LUX adjustment and TIME adjustment. This image also indicates the rated load for LED lighting (up to 1000W) and traditional lighting (up to 2000W).

Detection Range and Angle

The sensor offers a 360-degree detection angle, making it suitable for central ceiling placement. The maximum detection distance is approximately 6 meters (up to 8 meters at <24°C). The detection motion speed is 0.6-1.5 m/s.

IMPRESSIVE DETECTION FEATURES WITH OPTIONAL RESPONSE TIMINGS & LIGHT INTENSITY OUTPUT

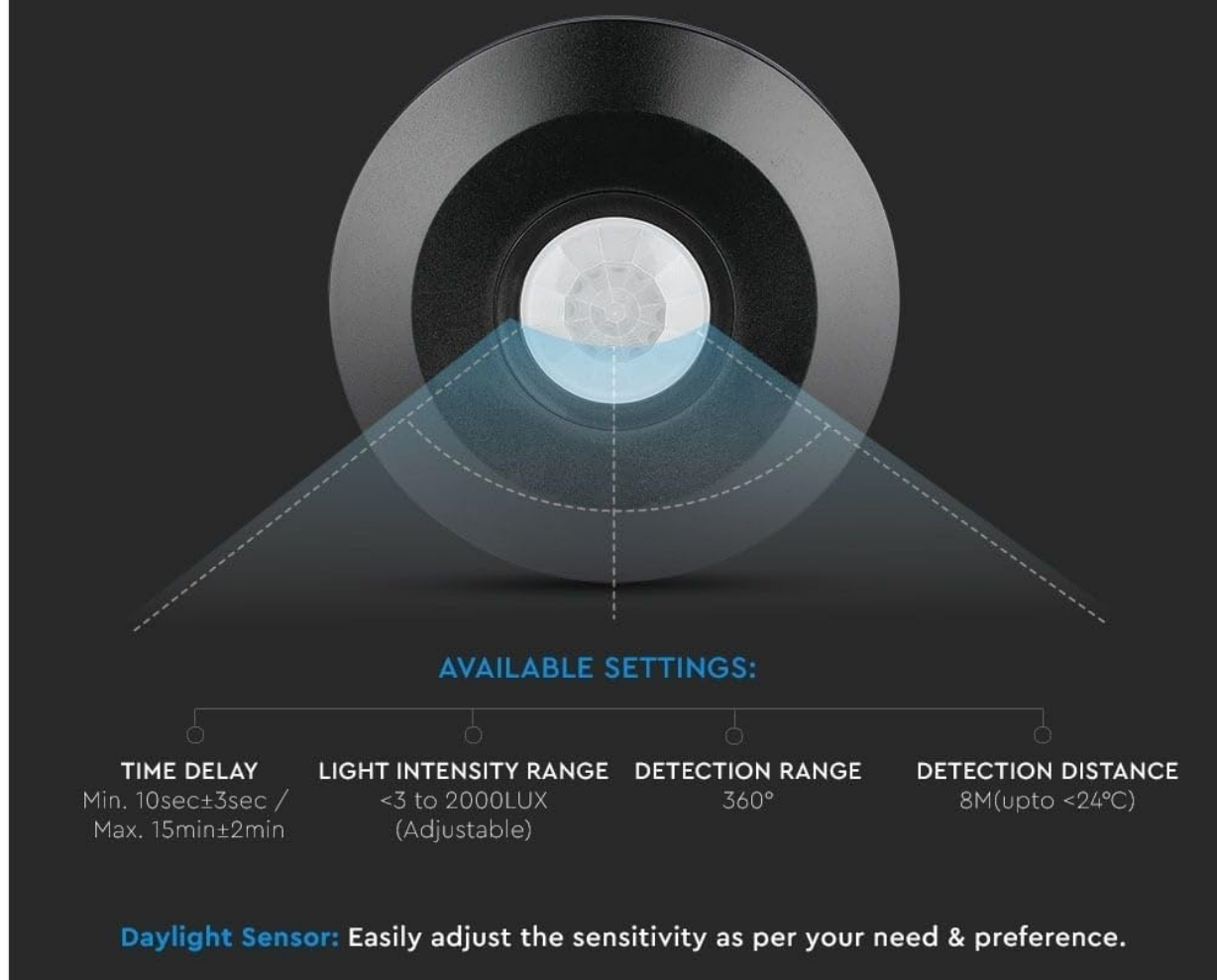


Figure 4: Diagram showing the impressive detection features, including a 360-degree detection range, adjustable light intensity range (<3 to 2000 LUX), and a detection distance of 8 meters (up to 24°C). The time delay is adjustable from 10 seconds to 15 minutes.

MAINTENANCE

The V-TAC VT-5087 PIR sensor requires minimal maintenance. Follow these guidelines to ensure optimal performance and longevity:

- **Cleaning:** Gently wipe the sensor lens and housing with a soft, dry cloth. Do not use abrasive cleaners, solvents, or excessive moisture, as these can damage the unit.
- **Obstructions:** Periodically check that there are no new obstructions (e.g., furniture, decorations) blocking the sensor's field of view.
- **Power:** Always disconnect power before performing any cleaning or inspection to prevent electric shock.

TROUBLESHOOTING

If you experience issues with your V-TAC VT-5087 PIR 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"> ◦ LUX setting is too low (set to MOON, but it's bright). ◦ Wiring error. ◦ No power to the sensor. ◦ Sensor is faulty. 	<ul style="list-style-type: none"> ◦ Adjust LUX control towards the SUN symbol. ◦ Check wiring connections (ensure power is off). ◦ Verify power supply at the circuit breaker. ◦ Contact V-TAC support if other solutions fail.
Light stays on continuously or turns on randomly.	<ul style="list-style-type: none"> ◦ LUX setting is too high (set to SUN, but it's dark). ◦ Constant motion in detection area. ◦ Heat sources or air currents causing false triggers. ◦ TIME setting is too long. 	<ul style="list-style-type: none"> ◦ Adjust LUX control towards the MOON symbol. ◦ Ensure no constant motion or obstructions. ◦ Relocate sensor away from heat sources or drafts. ◦ Adjust TIME control to a shorter duration.
Detection range is too short or inconsistent.	<ul style="list-style-type: none"> ◦ Obstructions blocking the sensor. ◦ Sensor mounted too high or in an unsuitable location. ◦ Ambient temperature is too close to body temperature. 	<ul style="list-style-type: none"> ◦ Clear any obstructions. ◦ Review mounting location; ensure it's within optimal range. ◦ PIR sensors are less effective when ambient temperature is similar to body temperature.

TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	VT-5087
Brand	V-TAC
Color	Black
Power Source	Corded Electric
Frequency	60 Hz
Mounting Type	Ceiling Mount
Maximum Detection Range	6 Meters (up to 8 meters at <24°C)
Detection Angle	360 Degrees
Time Delay Adjustment	Min. 10s ± 3s / Max. 15min ± 2min
Light Intensity Range (LUX)	<3 to 2000 LUX (Adjustable)
Detection Motion Speed	0.6-1.5 m/s
Rated Load (LED)	Max 1000W
Rated Load (Traditional Lighting)	Max 2000W
Operating Temperature	15 Degrees Celsius (Note: This seems like a minimum or specific test temperature, not a range.)
IP Rating	IP20

WARRANTY INFORMATION

This V-TAC VT-5087 PIR Infrared Motion Sensor comes with a **2-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. The warranty does not cover damage caused by improper installation, misuse, accidents, or unauthorized modifications.



Figure 5: Product packaging for the V-TAC Infrared Motion Sensor, clearly indicating a 2-year warranty and other features like 360-degree detection, 6m distance, and IP20 rating.

CUSTOMER SUPPORT

For further assistance, technical support, or warranty inquiries, please contact V-TAC customer service. Refer to the V-TAC official website or your product packaging for the most current contact information.

V-TAC Website: www.v-tac.eu