OSRAM SCP-0450

OSRAM Encelium SCP-0450 PIR Occupancy Sensor User Manual

Model: SCP-0450

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the OSRAM Encelium SCP-0450 PIR Occupancy Sensor. This device is designed to detect motion using passive infrared technology, enabling automated control of lighting or other systems in commercial and industrial environments.

The SCP-0450 is a 24V ceiling-mount sensor offering a 360-degree sensing angle and up to 450 feet of coverage, making it suitable for large areas.

1.1 Key Features

- 24 Volt Power Pack Required
- Ceiling Mount Installation
- 450 Feet of Coverage (Passive Infrared)
- 360 Degree Sensing Angle
- White Finish

1.2 Package Contents

- 1 x OSRAM Encelium SCP-0450 PIR Occupancy Sensor
- Installation Guide (this document)

2. SAFETY INFORMATION

Please read all safety instructions before installing or operating the sensor. Failure to follow these instructions may result in electric shock, fire, or property damage.

- **Electrical Hazard:** Installation must be performed by a qualified electrician in accordance with all national and local electrical codes.
- **Power Disconnection:** Always disconnect power at the circuit breaker or fuse box before performing any wiring or service.
- **Voltage Requirement:** This device requires a 24 Volt power pack. Do not connect to higher voltage supplies.

- **Indoor Use Only:** This sensor is designed for indoor use in dry locations. Do not expose to moisture or extreme temperatures.
- **Mounting:** Ensure the mounting surface is structurally sound and can support the weight of the sensor.

3. SETUP AND INSTALLATION

The OSRAM Encelium SCP-0450 sensor is designed for ceiling mount installation. Proper placement is crucial for optimal performance.

3.1 Choosing an Installation Location

- Select a central location on the ceiling to maximize the 360-degree sensing angle and 450 feet of coverage.
- Avoid placing the sensor near heat sources (e.g., HVAC vents, incandescent lights) or in direct sunlight, as these can cause false triggers.
- Ensure there are no obstructions (e.g., tall shelves, partitions) that could block the sensor's line of sight to the detection area.

3.2 Wiring Instructions

1. **Turn off power:** Before beginning any wiring, ensure power to the circuit is OFF at the breaker.
2. **Prepare wiring:** Route the 24V low-voltage wiring from the required 24V power pack to the chosen ceiling mount location.
3. **Connect wires:** Connect the sensor's wires to the 24V power pack output according to the wiring diagram provided with your power pack. Typically, this involves connecting the positive (+) and negative (-) terminals. Refer to the specific wiring diagram for your Encelium system components.
4. **Secure connections:** Ensure all wire connections are secure and properly insulated.

3.3 Mounting the Sensor

1. **Attach mounting bracket:** Secure the sensor's mounting bracket (if applicable, typically integrated) to the ceiling using appropriate screws and anchors.
2. **Position sensor:** Carefully attach the sensor body to the mounting bracket, ensuring it is firmly seated.
3. **Verify orientation:** Ensure the sensor is oriented correctly for optimal coverage of the desired area.

Figure 1: Top view of the OSRAM Encelium SCP-0450 PIR Occupancy Sensor. This image shows the sensor's dome-shaped lens for 360-degree motion detection.

Figure 2: Angled view of the OSRAM Encelium SCP-0450 PIR Occupancy Sensor. This image highlights the compact, white design suitable for ceiling installation.

4. OPERATING INSTRUCTIONS

The OSRAM Encelium SCP-0450 is a passive infrared (PIR) occupancy sensor. It operates by detecting changes in infrared radiation caused by the movement of people within its detection zone.

4.1 Powering On

Once installation and wiring are complete, restore power to the circuit at the breaker. The sensor will typically undergo a brief warm-up period (e.g., 30-60 seconds) during which it may not respond to motion or may exhibit inconsistent behavior. Refer to your Encelium system's main controller documentation for specific warm-up indicators.

4.2 Motion Detection

The sensor continuously monitors its 360-degree coverage area for motion. When motion is detected, it sends a signal to the connected Encelium lighting control system or other compatible devices. The system then responds according to its programmed settings (e.g., turning lights on, adjusting light levels).

The sensor's effectiveness is highest when detecting motion across its field of view rather than directly towards or away from it.

4.3 Coverage Area

The SCP-0450 provides up to 450 feet of coverage. The actual effective range can vary based on ceiling height, ambient temperature, and the type of motion being detected. For optimal performance, ensure the sensor is positioned to cover the primary areas of activity.

5. MAINTENANCE

The OSRAM Encelium SCP-0450 sensor requires minimal maintenance to ensure continued optimal performance.

- **Cleaning:** Periodically clean the sensor lens with a soft, dry, lint-free cloth. Do not use abrasive cleaners, solvents, or excessive moisture, as these can damage the lens or internal components.
- **Inspection:** Annually inspect the sensor for any physical damage or loose connections. Ensure the mounting is secure.
- **No User Serviceable Parts:** The sensor contains no user-serviceable parts. Do not attempt to open or repair the unit. Contact qualified personnel for service.

6. TROUBLESHOOTING

If the sensor is not performing as expected, review the following common issues and solutions:

Problem	Possible Cause	Solution
Sensor not detecting motion.	No power to the sensor. Incorrect wiring. Obstruction in detection path. Sensor lens is dirty. Sensor is in warm-up mode.	Verify 24V power supply is active. Check wiring connections against the power pack diagram. Remove any objects blocking the sensor's view. Clean the sensor lens. Wait for the warm-up period to complete.
False triggers (lights turn on without motion).	Heat sources in detection zone. Air currents (HVAC). Direct sunlight.	Relocate sensor away from heat sources. Adjust HVAC vents or sensor placement. Ensure sensor is not in direct sunlight.
Inconsistent detection.	Sensor not optimally placed. Interference from other devices.	Review installation location for optimal coverage. Consult Encelium system documentation for potential interference issues.

If problems persist after attempting these solutions, contact OSRAM technical support or a qualified service professional.

7. SPECIFICATIONS

Attribute	Value
Brand	OSRAM
Model Number	SCP-0450
Part Number	SCP-0450
Power Source	Corded Electric
Voltage	24 Volts
Mounting Type	Ceiling Mount

Attribute	Value
Maximum Range	450 Feet (Passive Infrared)
Sensing Angle	360 Degrees
Product Dimensions	11.43 x 11.43 x 11.43 cm
Item Weight	90.7 g (0.2 Pounds)
Colour	White
UPC	046135453632

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your OSRAM Encelium SCP-0450 sensor, please refer to the official OSRAM Encelium website or contact their customer support directly. Specific warranty terms and conditions may vary by region and purchase date.

Please have your product model number (SCP-0450) and purchase details available when contacting support.