

Popp SM-001

POPP SM-001 Electric Microwave Motion Sensor Instruction Manual

Model: SM-001

1. INTRODUCTION

Thank you for choosing the POPP SM-001 Electric Microwave Motion Sensor. This device utilizes advanced microwave technology to detect movement, providing automated lighting control for enhanced convenience and energy efficiency. It can detect motion through non-metallic doors, windows, and thin walls, making it versatile for various indoor applications. Please read this manual carefully before installation and use to ensure proper operation and safety.

2. SAFETY INFORMATION

- **Electrical Hazard:** Installation should only be performed by a qualified electrician or competent person. Ensure power is disconnected at the main circuit breaker before any installation or maintenance.
- **Indoor Use Only:** This device has an IP20 rating, meaning it is protected against solid objects over 12.5mm but has no protection against water. Do not install in wet or damp environments.
- **Voltage:** Operate only within the specified voltage range of 220-240V AC.
- **Load Capacity:** Do not exceed the maximum load capacity of 1200W for incandescent lights or 300W for LED lights.
- **Interference:** Avoid installing near large metallic objects or other microwave-emitting devices that could interfere with its operation.

3. PRODUCT OVERVIEW

The POPP SM-001 is a compact microwave motion sensor designed for surface mounting. It features adjustable settings for detection range, time delay, and ambient light sensitivity.



Figure 3.1: POPP SM-001 Microwave Motion Sensor in its packaging.

3.1 Dimensions

LUX: Umbral de luz diurna

Radar de onda continua

SENS: Rango de detección

TIME: Tiempo de retardo

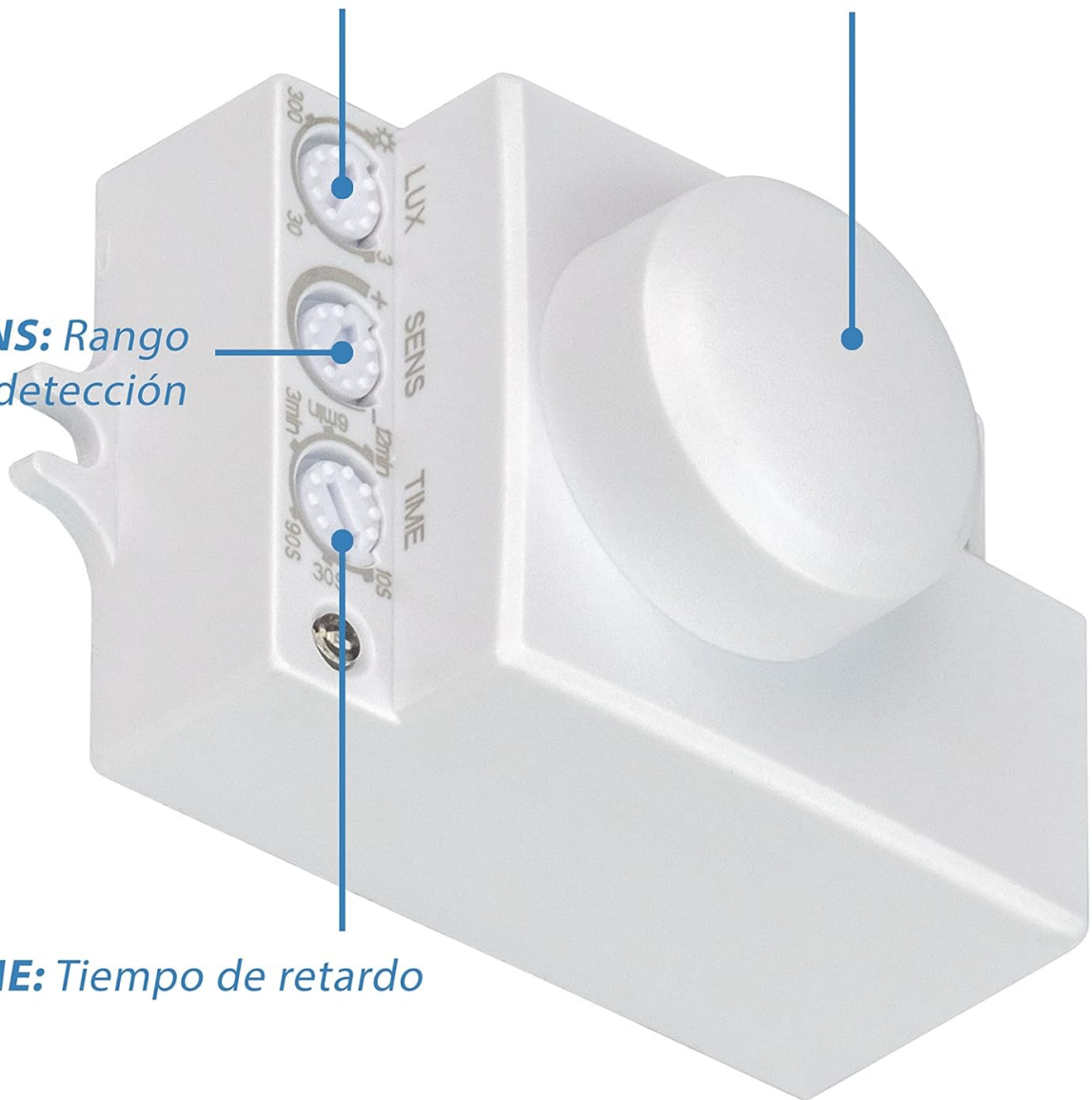


Figure 3.2: Dimensions of the POPP SM-001 sensor. The sensor measures approximately 39.4mm in width, 54.5mm in length, and 37.2mm in depth.

3.2 Adjustment Dials

Realizar la conexión del cableado de alimentación según el esquema a continuación. Completada la instalación del dispositivo encienda de nuevo el interruptor y compruebe que funciona correctamente.



Figure 3.3: The sensor features three adjustment dials: **LUX** for ambient light threshold, **SENS** for detection range, and **TIME** for delay time.

4. SPECIFICATIONS

Feature	Specification
Brand	Popp
Model Number	SM-001
Operating Voltage	220-240V AC
Radar Frequency	5.8GHz
Detection Angle	180° - 360° (Adjustable)
Detection Range	5-15m (Wall), 1-8m radius (Ceiling)
Installation Height	1.5-3.5m (Wall), 2-8m (Ceiling)
Time Delay	10s ±3s to 12min ±1min (Adjustable)
Ambient Light Sensitivity (LUX)	3-2000 Lux (Adjustable)
Max Incandescent Load	1200W

Feature	Specification
Max LED Load	300W
IP Rating	IP20
Mounting Type	Surface (Wall, Ceiling)
Product Weight	40g
Batteries Required	No

5. INSTALLATION (SETUP)

Before proceeding with installation, ensure the main power supply is switched off to prevent electrical shock. This sensor is designed for surface mounting on walls or ceilings.

5.1 Mounting Location

- For wall installations, mount the sensor at a height between 1.5m and 3.5m.
- For ceiling installations, mount the sensor at a height between 2m and 8m.
- Choose a location free from obstructions that might block the microwave signal.
- Avoid direct exposure to heat sources, air conditioning vents, or strong electromagnetic fields.

5.2 Wiring Diagram

Follow the wiring diagram carefully. Incorrect wiring can damage the device or pose a safety risk.



Figure 5.1: Wiring connections for the POPP SM-001 sensor. Connect the Live (L), Neutral (N), and Load (L') wires as indicated. The load is the light fixture or device to be controlled.

1. Disconnect power at the main circuit breaker.
2. Connect the Live (L) wire from the power supply to the 'L' terminal on the sensor.
3. Connect the Neutral (N) wire from the power supply to the 'N' terminal on the sensor.
4. Connect the Live wire of your light fixture (Load) to the 'L' terminal on the sensor.
5. Connect the Neutral wire of your light fixture to the Neutral (N) wire of the power supply.
6. Secure all connections properly.

5.3 Mounting the Sensor



Figure 5.2: Example of ceiling installation using screws and anchors. Ensure the sensor is securely fastened.

1. Mark the desired mounting position on the wall or ceiling.
2. Drill pilot holes if necessary and insert wall anchors.
3. Secure the sensor to the mounting surface using appropriate screws.
4. After mounting and wiring, restore power and test the sensor.

6. OPERATING INSTRUCTIONS

The POPP SM-001 sensor has three adjustable dials to customize its operation:

Realizar la conexión del cableado de alimentación según el esquema a continuación. Completada la instalación del dispositivo encienda de nuevo el interruptor y compruebe que funciona correctamente.

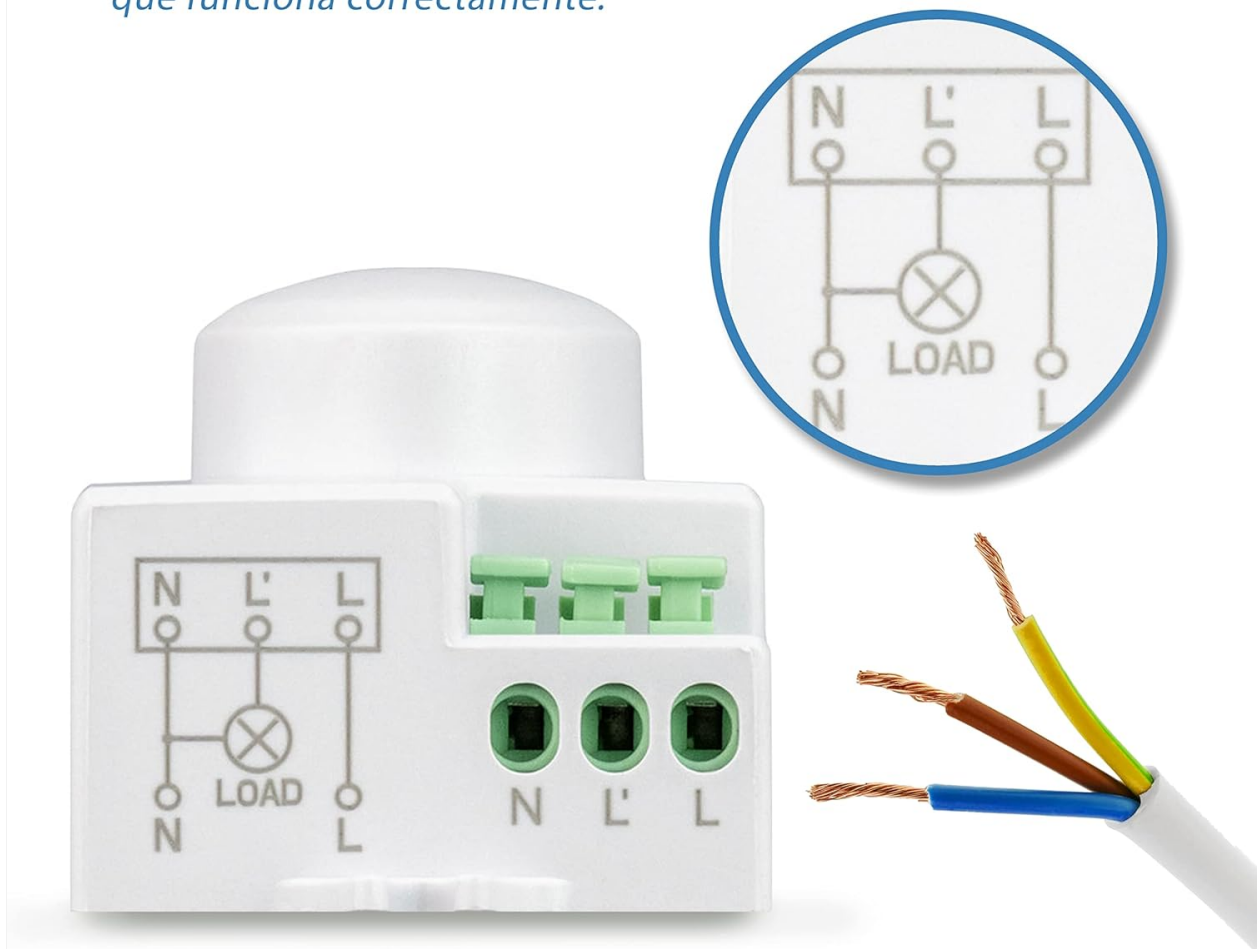


Figure 6.1: Close-up of the adjustment dials for LUX, SENS, and TIME.

6.1 LUX (Ambient Light Sensitivity)

This dial controls the ambient light threshold at which the sensor will activate.

- Turn the dial towards the **"3"** (moon icon) setting for activation only in low light conditions (e.g., night).
- Turn the dial towards the **"2000"** (sun icon) setting for activation in all light conditions (day and night).

6.2 SENS (Detection Range)

This dial adjusts the sensitivity of the microwave radar, effectively controlling the detection range.

- Turn the dial towards **"-"** for a shorter detection range (e.g., 1m for ceiling, 5m for wall).
- Turn the dial towards **"+"** for a longer detection range (e.g., 8m for ceiling, 15m for wall).

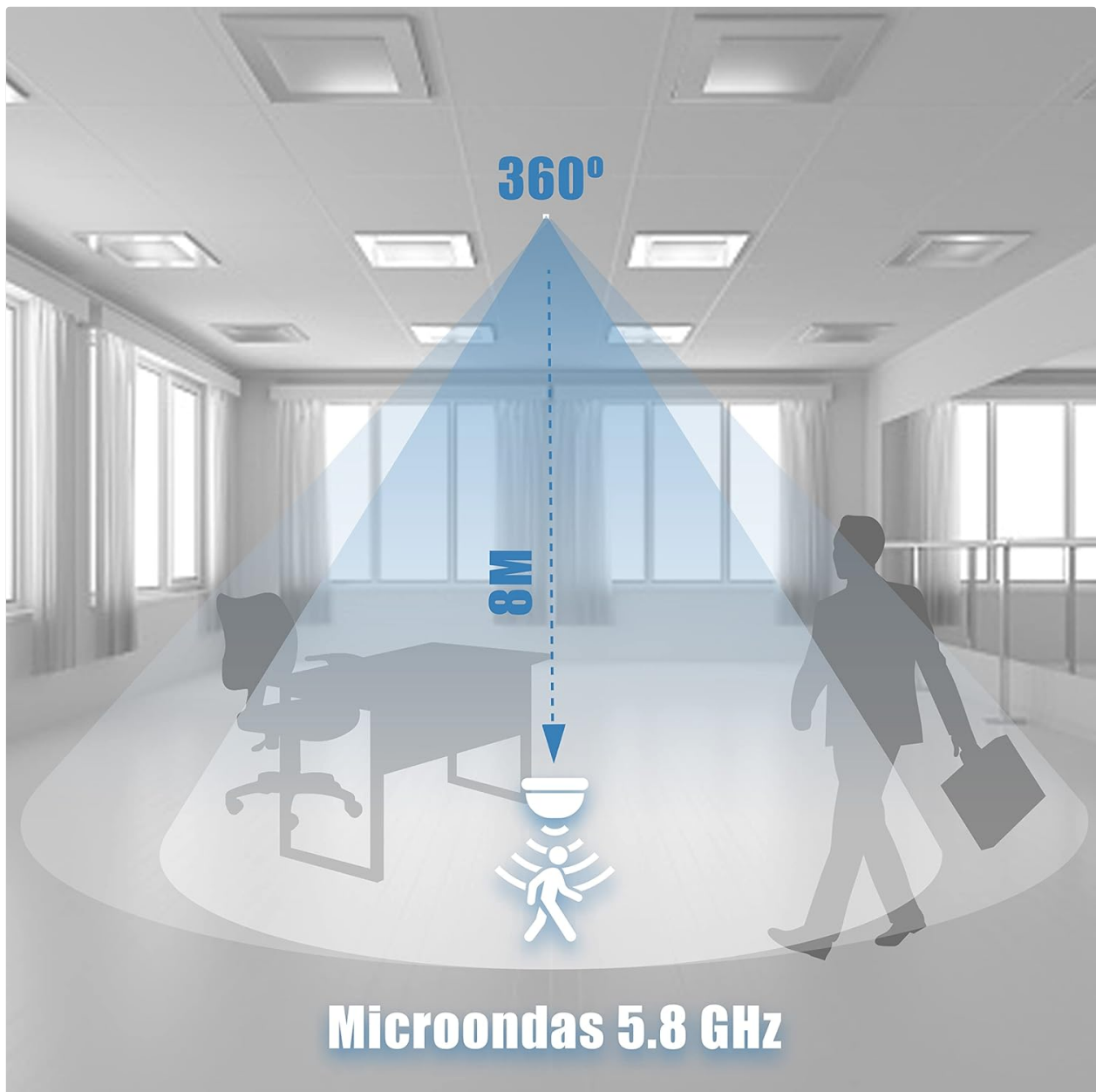


Figure 6.2: Illustration of the 360° detection range from a ceiling-mounted sensor, extending up to 8 meters in radius.

6.3 TIME (Time Delay)

This dial sets how long the connected light will remain on after the last detected motion.

- Turn the dial towards **"10S"** for a shorter delay (approximately 10 seconds).
- Turn the dial towards **"12MIN"** for a longer delay (approximately 12 minutes).

7. MAINTENANCE

The POPP SM-001 Microwave Motion Sensor requires minimal maintenance.

- **Cleaning:** Gently wipe the sensor's surface with a soft, dry cloth. Do not use abrasive cleaners, solvents, or excessive moisture.
- **No User-Serviceable Parts:** Do not attempt to open or repair the sensor. Doing so will void the warranty and may pose an electrical hazard.

8. TROUBLESHOOTING

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 wiring. LUX setting too low (sensor thinks it's daytime). SENS setting too low (detection range too small). Faulty light bulb/fixture. 	<ul style="list-style-type: none"> Check power supply and circuit breaker. Verify wiring against the diagram (Section 5.2). Adjust LUX dial towards the "2000" (sun) setting for testing. Adjust SENS dial towards "+" for maximum range. Test the light fixture with a direct power source.
Light stays on continuously.	<ul style="list-style-type: none"> Constant motion within detection range. TIME setting too long. Interference from other devices or environmental factors. Sensor malfunction. 	<ul style="list-style-type: none"> Ensure no continuous movement in the detection area. Adjust TIME dial towards "10S" for a shorter delay. Relocate the sensor or remove potential sources of interference. Contact customer support if the issue persists.
Detection range is too short or inconsistent.	<ul style="list-style-type: none"> SENS setting too low. Obstructions blocking the microwave signal. Incorrect mounting height. 	<ul style="list-style-type: none"> Adjust SENS dial towards "+" for maximum range. Ensure clear line of sight for microwave signals (though it can pass through thin non-metallic objects, dense objects will reduce range). Verify mounting height is within recommended range (Section 5.1).

9. WARRANTY AND SUPPORT

POPP products are manufactured to high-quality standards. While specific warranty details are not provided in this manual, please refer to the product packaging or the retailer's website for warranty information.

For technical support or inquiries, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase for any warranty claims.

Manufacturer: POPP

Please refer to the product packaging or the retailer's website for official support channels.