ES809 High Frequency/Microwave High Bay Motion Sensor User Manual

General
The ES809 High Frequency/Microwave motion sensor is ideal for high bay applications, such as warehouses and factories. The sensor has an extruding screw that can easily be installed directly onto a light fixture.

WARNING: EQUIPMENT (such as access control systems, alarms, BMS etc.) WITH THE SAME BAND WIDTH AS THE SENSOR CAN CAUSE INTERFERENCE WITH THE SENSOR'S BEHAVIOUR. PLEASE TEST AND ENSURE THE SENSOR IS SUITABLE FOR THE NSTALLATION

If, after reviewing this guide, you require additional information or assistance please contact Eco Heat Equipment at info@ecosensor.co.za, +27 (0)861 999 887, or www.ecosensor.co.za.

Technical Specifications
- Voltage: 120 – 277V/AC
- Frequency: 50/60Hz
- Load: Incandescent max: 1000W
  Fluorescent max: 600W
  LED max: 300W
- Detection Angle: 360 °
- Detection Range: 1 - 8m radius
- Light level: 10 – 2 000 LUX
- Time setting: 10 seconds – 30 minutes
- Installation height: 2.5 – 13.5m max
- Working temperature: -40°C to 75°C
- Dimensions: Length: 81mm (102.5mm with connector)
  Width: 81mm
  Height: 43.26mm

Safety
Any incorrect use or installation procedure not recommended by the manufacturer may cause fire, electrical shock or injury to persons.

Box Contents
Your box should contain the following items:
- Sensor

WARNING:
Controlling a load in excess of the specified ratings will damage the unit and lights and could pose risk of fire and electric shock.

Do not install this unit to control a power socket.

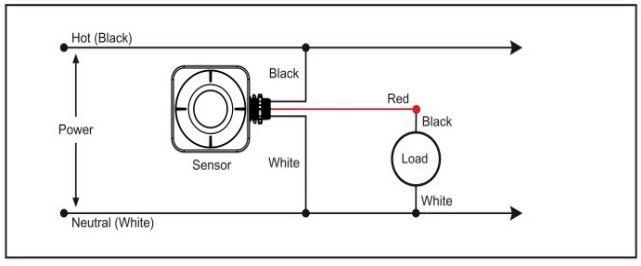
Installation Instructions
WARNING: ALL WIRING MUST BE DONE IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES AND STANDARDS.

Note: motion sensors respond to rapid changes in temperature so care should be taken not to mount the device near a climate control source (i.e. heaters or air conditioners). Hot or cold draughts will seem like body motion to the sensor and will trigger the device. Recommended distance from climate control devices is 2m.

1. Turn power off at circuit breaker or fuse
2. Connect wires as per diagram
3. Sensor can be secured onto light fitting
4. Restore power at circuit breaker or fuse

Sensor calibration:
Note: Allow up to 1 minute for the motion sensor to recalibrate after it has been connected for the very first time. This is only necessary during installation or when the mains supply is disconnected.

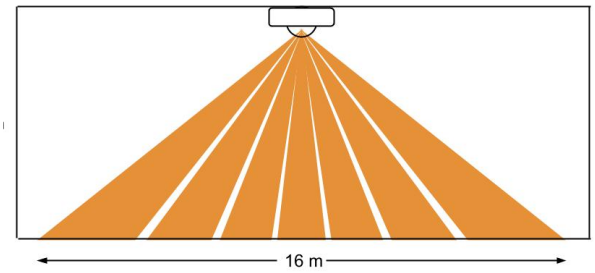
Installation wire diagram



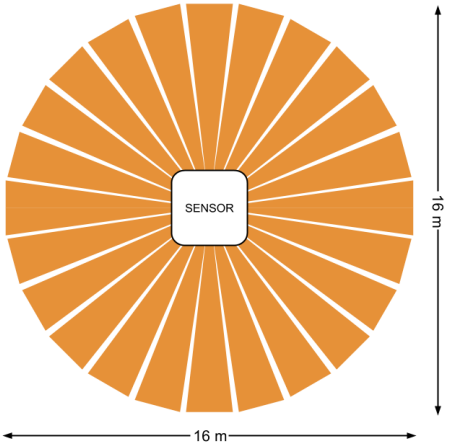
Operation and Field of View

The motion sensor detects motion within its coverage area and controls the associated lighting connected to the sensor. The passive infra red (PIR) sensor is sensitive to the heat emitted by the human body. In order to trigger the sensor the source of heat must move from one zone of detection to another. The device is most effective in sensing motion across its field of view and less effective sensing motion towards or away from its field of view.

Sensor detection range from side: large motion



Sensor detection from top: large motion



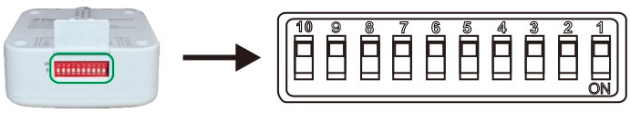
Sensor Settings and Adjustments

There are three adjustments that can be made to influence the operation of the motion sensor:

1. RANGE: motion detection range
2. TIME: time delay after motion/sound until shut off
3. LUX/LIGHT: level of ambient light sensitivity

The three adjustments settings are as follows:

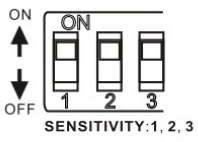
Detection range:	1m to 8m radius
Time setting range:	10 sec to 30 min
Lux (light) sensitivity:	10 to 2 000 LUX



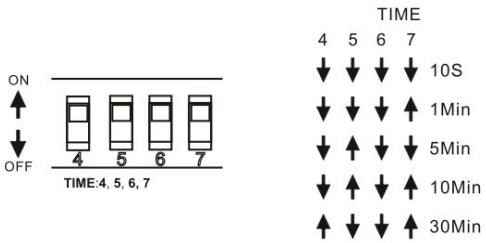
Sensor Adjustments

The sensor's settings can be adjusted as follows:

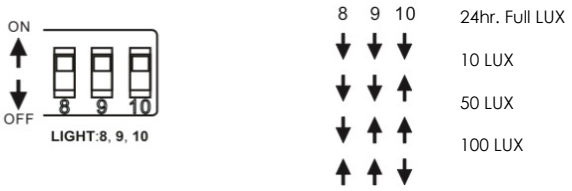
SENSITIVITY/ RANGE setting
Adjust dipswitch 1,2 and 3 for the selected detection range from 1m (minimum) – 8m (maximum)



TIME setting
Adjust dipswitch 4,5,6 and 7 to the required time. Settings are from 10 seconds (minimum) to 30 minutes (maximum)



LUX/LIGHT setting
The recommended LUX setting for Commercial/Industrial applications is full LUX



Default factory settings: 100% Sensitivity, Time 10 seconds, full LUX

NOTE: All the time intervals are within approximately 10 seconds of the stated time out interval.

OTHER CAUTIONS:
Disconnect power when working on electrical outlets or components.
Do not push on the surface of the lens.

Cleaning
Carefully wipe sensor with a soft damp cloth. Do not apply pressure to the lens.

Recycling
Please recycle all packaging material that came with the motion sensor.

Warranty
The sensor has a three (3) year warranty after the date of the original purchase. Please keep your original receipt, as this will be required for any claims under this warranty. The warranty is a strictly carry in policy. (The sensor/s has to be returned to Eco Heat offices for a claim to be processed).

The warranty does not cover:
- damage from misuse,
- neglect or abuse,
- products that have been modified in any way,
- shipping and handling cost associated with the product,
- damage resulting from accidents, lightning, fire, water, power surges, natural disasters and/or incorrect installation

For more information, view the Return/Refund Policy at www.ecosensor.co.za.

Trouble Shooting

Malfunction	Possible Cause	Remedy
The unit will not switch "on"	a. No mains power b. No movement is detected (in detection zone) c. Wrong LUX/LIGHT level setting d. Electrical circuitry faulty e. Electrical Installation not done correctly f. Unit may be faulty	a. Check mains power is on b. Move towards the unit (in detection zone) or increase the detection range settings c. Adjust setting on the LUX/LIGHT settings d. Refer to the 'Electrical Installation' section to ensure correct installation e. Have a certified electrician disconnect and test the unit f. Contact Eco Heat Equipment
Unit stays "on" permanently	g. Continuous movement in detection zone h. The sensor is not mounted correctly for reliable operation i. Wrong LUX/LIGHT level setting j. Time setting control is set too far k. Unit may be faulty	g. Check detection range setting and reduce detection range sensitivity h. Check detection range setting and mounting procedure i. Adjust setting on the LUX/LIGHT settings j. Adjust the time setting control k. Contact Eco Heat Equipment

Due to minor improvements in design or otherwise, the product you purchase may differ from the one shown in this leaflet. For more information or advice on this or any other Eco Heat Equipment products, visit www.ecosensor.co.za or phone +27 (0)861 999 887.

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