

WATTECO
DS_50 MOVE O
Lite Sensor



WATTECO DS_50 MOVE O Lite Sensor Owner's Manual

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WATTECO DS_50 MOVE O Lite Sensor



Product Usage Instructions

- **Presence Detection and Monitoring**

The Move'O Lite sensor utilizes infrared technology to detect presence through movement. It measures temperature, humidity, and luminosity in a space, ensuring occupant comfort. The sensor helps in regulating heating based on zone occupancy.

- **Data Transmission**

The sensor transmits measurement data individually or in batch reports over the LoRaWAN network. The standard report includes the current presence detection status, while batch reports contain presence detection states and timestamps.

- **Installation and Commissioning**

Installation is quick and easy. The sensor is equipped with a magnetic switch for network association and LEDs for status monitoring. The sensor operates on a 3.6V/2600mAh battery with a minimum autonomy of 5 years.

MOVE'O Lite detects the presence of people and measures the temperature, humidity and brightness of a room. This data is transmitted via a public or private LoRaWAN radio frequency network®. The MOVE'O Lite sensor has 4 sensors: passive infrared (PIR), temperature T°C, humidity Hr%, and luminosity for indoor use.

APPLICATIONS

- Monitoring the occupancy of a waiting room
- Occupancy rate of meeting rooms
- Heating control according to the occupancy of a zone
- Classification of the BMS in class A within the framework of the CEE scheme

BENEFITS & FEATURES

- LoRaWAN®, Class A.
- Easy to install and use.

- 5 years of autonomy.
- 4 sensors: Presence, Temperature, Humidity, Brightness

Measuring ranges/accuracies:

- Movement: up to 12m, 102° x 92° detection, 68 zones.
- Temperature: 0°C to +55°C / $\pm 0.2^{\circ}\text{C}$
- Hygrometry: 0% to 100%rH / $\pm 2\%$.
- Brightness: 0.01Lux to 83,000 Lux / 5%.

CERTIFICATION

RoHS, RED

- Thanks to its infrared technology (PIR), MOVE'O Lite detects presence through movement. Presence detection is achieved by the changes in infrared radiation that occur when a person moves with a different temperature than the environment.
- In addition, Move'O Lite measures the temperature, humidity and luminosity of a space, ensuring the comfort of the building's occupants.
- Move'O Lite responds to questions of energy efficiency.
- Indeed, this sensor makes it possible to know the activity in a zone, and thus to be able to regulate the heating according to the frequentation of this room.
- The measurement data is transmitted individually (standard report) or aggregated and compressed (batch report) before being transmitted over the LoRaWAN network.
- In the standard report, the information transmitted corresponds to the status of the current presence detection.
- A delay time (seconds) is used to specify after how long without movement the sensor will decide that the room is unoccupied.
- In batch reporting, the periodically transmitted information contains the states of the presence detection and the time stamp of the records.
- Installation and commissioning is quick and easy.
- **The sensor is equipped with :**
 - a magnetic switch allowing the association to the network and various interventions (e.g. prolonged standby),
 - LEDs to monitor the association on the network and to know the main status of the sensor.
- Powered by one 3.6V/2600mAh battery, the sensor has an autonomy of at least 5 years with 1 transmission every 30 minutes in batch mode.

WE HAVE THE RIGHT SENSORS FOR YOUR NEEDS

WATTECO is a leading European designer and manufacturer of intelligent radio frequency sensors and actuators as well as multi-protocol remote data collection solutions. WATTECO is a member of the LoRa Alliance®

TECHNICAL CHARACTERISTICS

Category	Specification
PRODUCT DETAILS	

Category	Specification
Product Number	50-70-225
Reference Description	LoRaWAN™ MOVE'O LITE
RADIOFREQUENCY	
Frequency (EU)	863-870 MHz
Emitted Power	+14 dBm
Sensitivity	-140 dBm
FIRMWARE	
Protocol	LoRaWAN™, Class A
Measurement Periodicity	10 min to 24 hours
Transmission Interval	30 min to 48 hours
Data Compression	Yes (default), can be disabled
Activation Method	Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)
Data Encryption	AES128
MEASURES	
Detected Parameters	Movement, Temperature, Hygrometry, Brightness
Detecting Distance	12m, 6m, 3m
Temperature Range	0°C to +55°C
Humidity (HR)	0% to 100%
Brightness Range	0.01 to 83,000 Lux
Accuracy	105° horizontal, 92° vertical
Temperature Accuracy	±0.2°C (12°C to 25°C), otherwise ±0.5°C
Humidity Accuracy	±2% (12°C to 25°C), otherwise ±5%
Resolution	Temperature: 0.1°C, Humidity: 1%
POWER SUPPLY	
Voltage	3.6 V / 2600 mAh lithium battery (replaceable)
Battery Monitoring	Voltage level measured and transmitted at configurable intervals
Battery Life	5 years (1 report every 30 minutes in SF12 mode at 12°C to 25°C)
USER INTERFACE	
Interface	Magnetic switch + LEDs (Network association, sensor status)
ALARMS	
Detection	Movement, temperature, and humidity threshold alerts
Battery Alert	Low battery warning at 2.7V

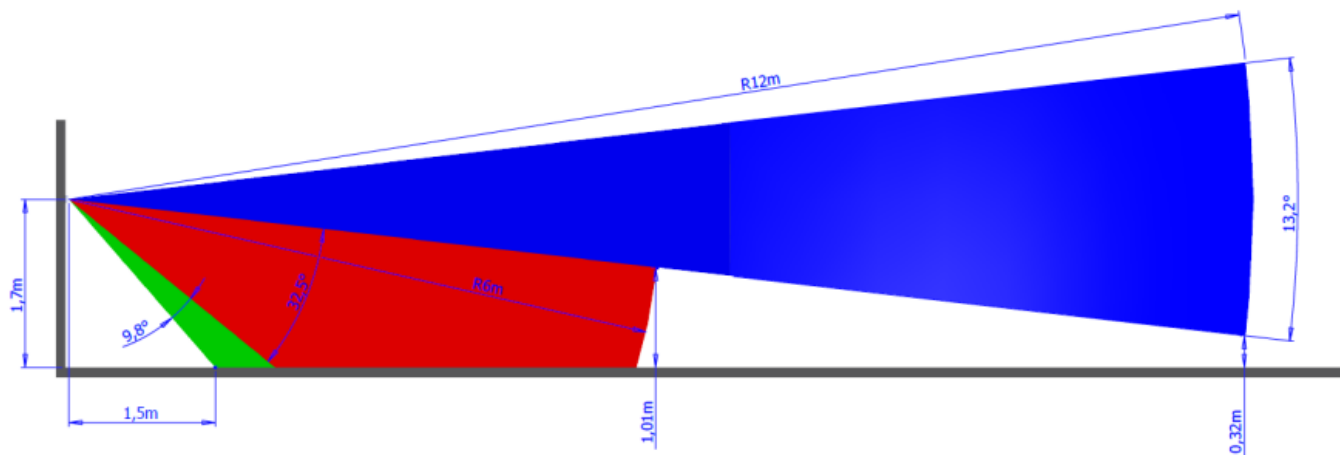
Category	Specification
BOX	
Size	74 × 74 × 35 mm
Weight	69 g
ENVIRONMENT	
Operating Conditions	0°C to 55°C, 0%RH to 95%RH (non-condensing)
Storage Conditions	10°C to 30°C, 0%RH to 60%RH
STANDARDS & REGULATIONS	
Compliance	RED 2014/53/EU

MOVEMENT TECHNICAL CHARACTERISTICS

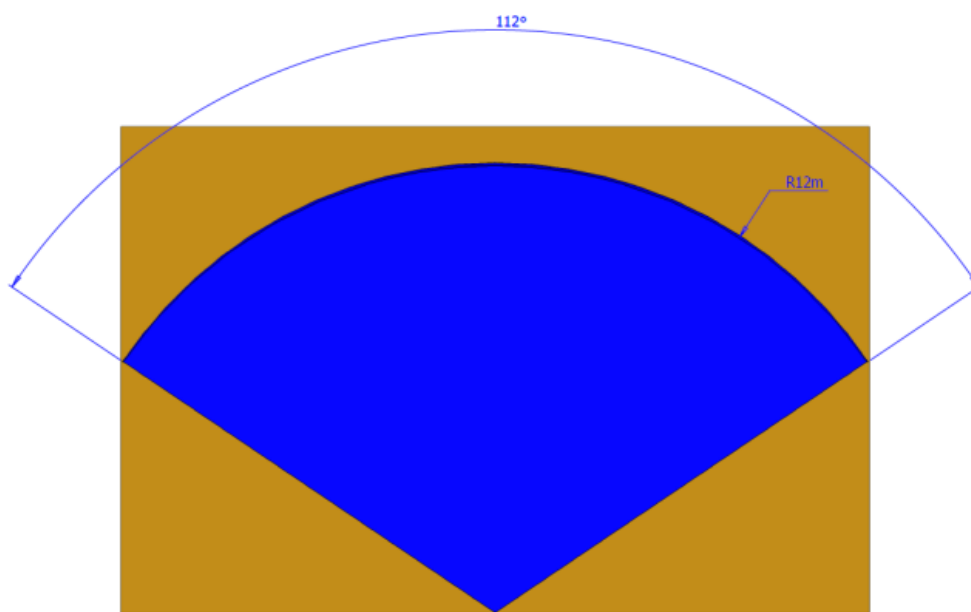
The infrared technology (PIR) in the Move'O detects presence with 3 different zone:

- 1st zone: 12m with a radius of 112° horizontally and 13,2° vertically
- 2nd zone: 6m with a radius of 112° horizontally and 32,5° vertically
- 3rd zone: 3m with a radius of 112° horizontally and 9,8° vertically

Below the detection zone, when the device is placed at 1,7m above the floor:



Side view



Top view

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FAQ

Q: How far can the sensor detect movement?

A: The sensor can detect movement at distances of 12m, 6m, or 3m based on the configuration.


Q: What is the battery life of the sensor?

A: The sensor has a battery life of at least 5 years with one transmission every 30 minutes in batch mode.

Q: What are the environmental specifications of the sensor?

A: The sensor operates within a size of 74x74x35mm and weighs 69g. It can function in various environmental conditions for both operation and storage.

Documents / Resources

	<p>WATTECO DS_50 MOVE O Lite Sensor [pdf] Owner's Manual DS_70, DS_225, DS_50 MOVE O Lite Sensor, DS_50, MOVE O Lite Sensor, Lite Sensor</p>
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References

- [!\[\]\(36f8637baaa56c4be44b454435949289_img.jpg\) Concepteur et fabricant de capteurs transmetteurs radio connectés IoT - WATTECO](#)
- [!\[\]\(b556e0ef1e10ccfc32976edb6416074f_img.jpg\) Concepteur et fabricant de capteurs transmetteurs radio connectés IoT - WATTECO](#)
- [User Manual](#)

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