

Light is OSRAM

OSENZA MW3H6D LI On/Off switch sensor with Microwave detection

OSENZA MW3H6D LI is a microwave sensor providing automatic on/off control of lights for energy saving.

Switching luminaires on and off is based on movement detection, delay timeout and environmental light level. The motion sensitivity, delay time and light level threshold are presettable via DIP switches.

It is suitable for built-in to the luminaire for Indoor applications like: Office / Corridor / Storage room / washroom / Residential areas, etc.

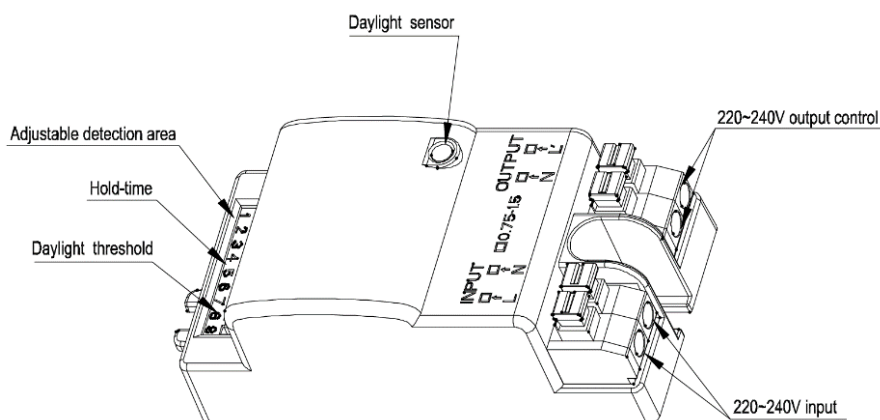


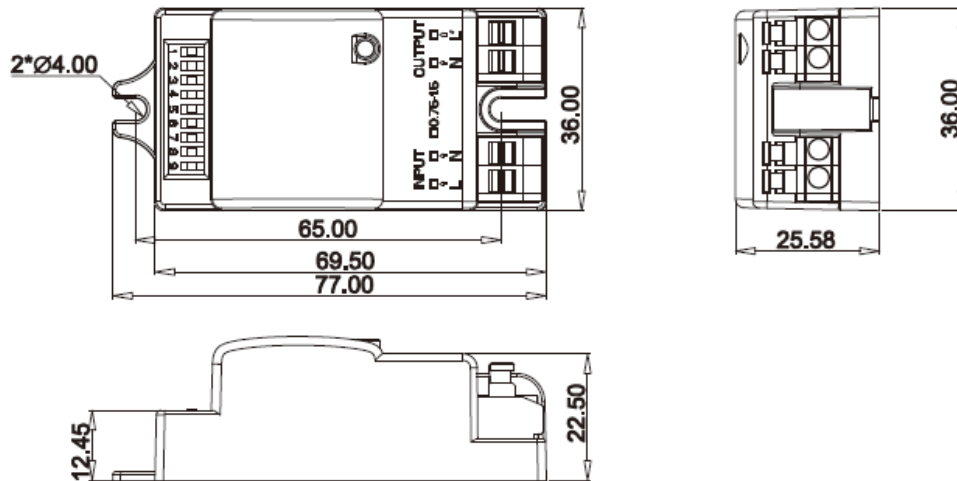
Product Features:

- Compact size, favorable for built-in to lighting fixtures.
- Push-in terminals for easy wiring.
- Adjustable via DIP switches for delay time, sensitivity and light level threshold.
- Max. Load:
Incandescent Lamp 800W
Fluorescent Lamp 300W
LED Lamp 200W
- Motion detection range up to Ø6m ¹⁾

1) @ 3 m mounting height and 100% sensitivity

Product structure and dimensions:



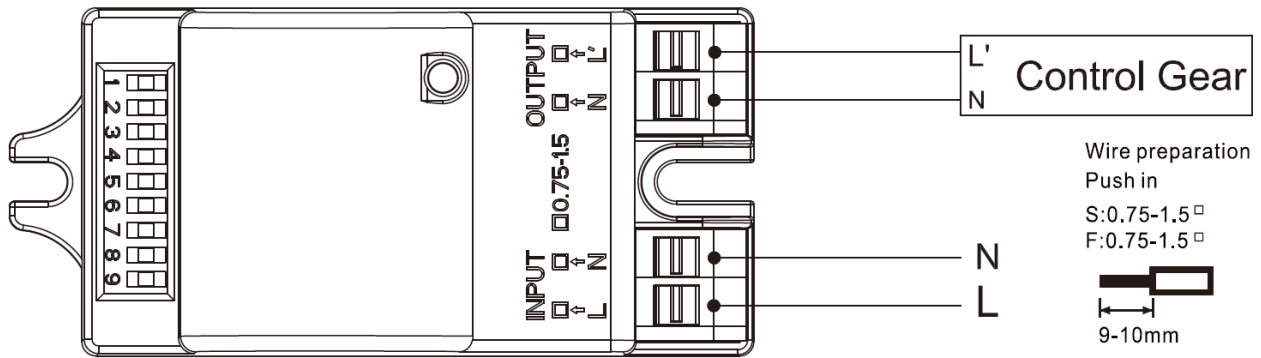


Specifications:

| | Item | Value |
|--------------------------|-------------------------------------|---|
| Input | Nominal Voltage | 220-240VAC |
| | Standby power | ≤ 0.5W |
| Output | Max. Load | 800W(Incandescent Lamp); 300W(Fluorescent Lamp); 200W(LED Lamp) |
| | Max. Surge Capacity | 30A (50% I _{peak} , t _{width} =500uS, 230Vac full load, cold start); 60A (50% I _{peak} , t _{width} =200uS, 230Vac full load, cold start) |
| Sensor Parameters | Operating Frequency | 5.8 GHz ±75 MHz |
| | Transmitting power | 1mW Max. |
| | Hold time | 5s - 30 min., adjustable via DIP switches |
| | Sensitivity | 10-100%, adjustable via DIP switches |
| | Light level threshold ²⁾ | 2lux/10lux/25lux/50lux/Disable, adjustable via DIP switches |
| | Detecting range | Ø 6m @3m mounting height and 100% sensitivity, please refer to detection patterns and images below |
| | Mounting Height | 3-6m |
| ENVIRONMENT | Ambient temp. range (ta) | -20...+60°C |
| | Storage temperature range | -40...+80°C |
| | Operating Humidity | 10...85%(Non-condensing) |
| | Storage Humidity | 0...85%(Non-condensing) |
| | Environmental rating | Indoor |
| | IP rating | IP 20 (Indoor use only) |
| | Installation | Built-in type for Luminaire Integration |
| | Protection Class | Class II |
| | Housing material | Plastic |
| | Surge test | L-N: 1kV |
| Logistic | Dimensions | 77x36x25.6 mm |
| | Net Weight | 38 g |
| | EAN10 | 4062172315210 |
| | EAN40 | 4062172315227 |
| | Pieces per shipping box | 150pcs |

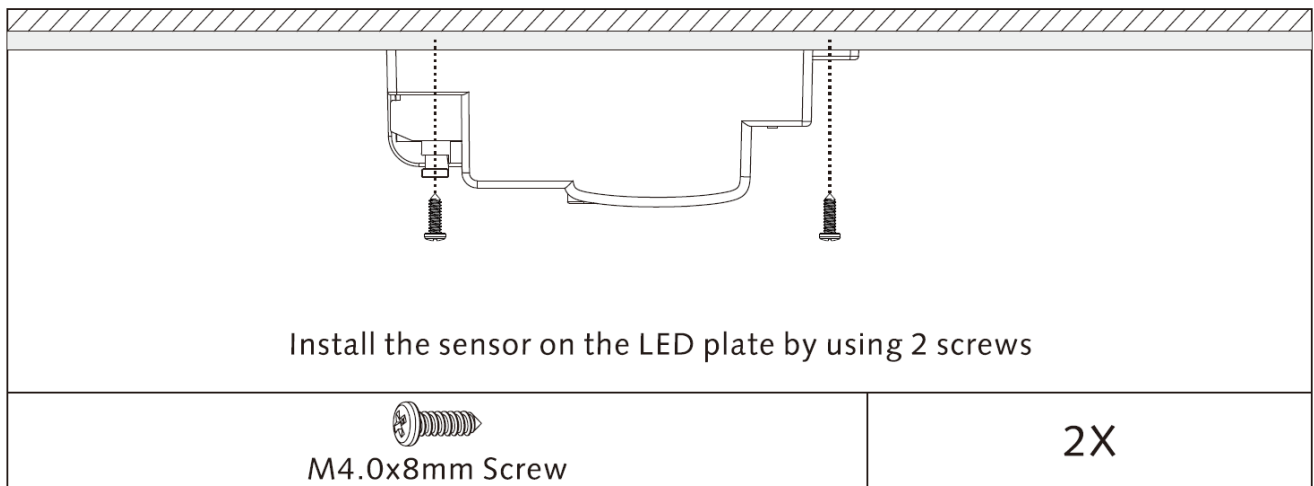
2) Measured at the Sensor

Wiring:



The sensor is designed to connect one load only and the Max. load shall be complied to avoid damaging the device or causing unexpected risks by electric overload.

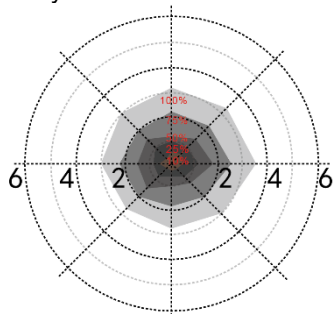
Installation:



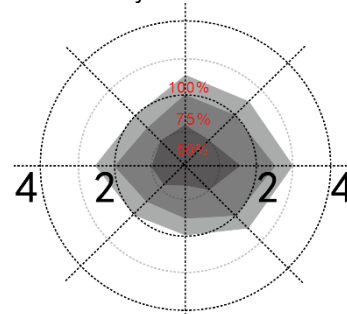
Radiation Pattern:

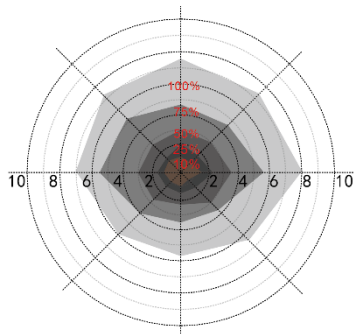
Ceiling mounting

Ceiling mounted height: 3m
Sensitivity: 100%/75%/50%/25%/10%

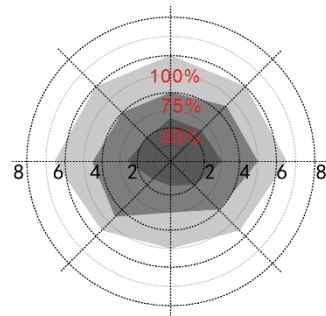


Ceiling mounted height: 6m(*)
Sensitivity: 100%/75%/50%





Slow moving (Speed 0.3m/s)

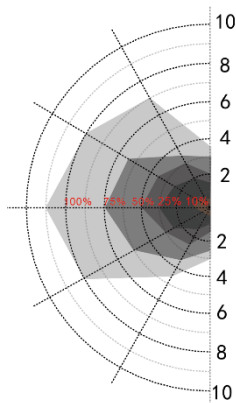


Slow moving (Speed: 0.3m/s)

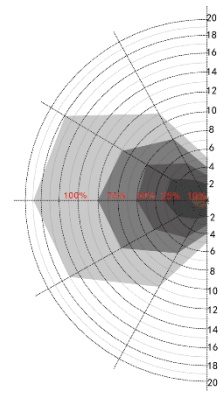
*50%,75%,100% detection sensitivity is workable when installed at 6m mounting height. Only 10%,25% sensitivity is not able to detect motion signal.

Wall mounting:

Wall mounted height: 2m
Sensitivity: 100%/75%/50%/25%/10%



Normal moving (Speed : 1m/s)



Slow moving (Speed 0.3m/s)

The data of detection pattern is the typical value tested without any lighting fixture in the factory, the detection range could be affected by moving speed, installation height, motion object and environment situations.

DIP Switch Setting:

| 1 | 2 | 3 | Sensitivity | 4 | 5 | 6 | Delay time | 7 | 8 | 9 | Lux level threshold |
|----|----|----|--------------------|----|----|----|--------------------|----|----|----|--------------------------|
| ON | ON | ON | 100% ³⁾ | ON | ON | ON | 5sec ³⁾ | ON | ON | ON | 2 lx |
| - | ON | ON | 75% | - | ON | ON | 30sec | ON | ON | - | 10 lx |
| ON | - | ON | 50% | ON | - | ON | 90sec | - | ON | - | 25 lx |
| - | - | ON | 25% | - | - | ON | 3min | ON | - | - | 50 lx |
| - | - | - | 10% | ON | ON | - | 20min | - | - | - | Disable ^{3) 4)} |
| | | | | - | - | - | 30min | | | | |

3) Factory default setting.

4) The Lux level threshold is disabled, lights will be switch on/off based on motion detection and the preset delay time, independent to ambient light level.

Initialization

After power on, the sensor will automatically switch on the light and during the initialization phase, no movements will be detected. The initialization phase will take about 12 seconds.

Application Notice

1. Make sure to power off before adjusting DIP switch settings.
2. The microwave cannot pass through the metal, so the sensor cannot be installed in closed or semi-closed metal fixtures. Make sure there are no metal or glass above the sensor.

General Guidelines for Installation:

1. The sensor should be installed by a qualified electrician. And ensure that the electricity supply is switched off before installing or servicing the product.
2. The sensor should not be modified in any way. Any modifications made for this product will immediately invalidate any warranties issued.
3. The company does not accept responsibility for any consequences caused by unauthorized modification of the product.
4. The sensor should be connected to a stable power supply of 220-240Vac, 50/60Hz.
5. Microwaves cannot pass through metal or brick walls if thicker than 20cm. They will pass through thinner walls but there will be some attenuation.
6. Installation inside a glass or plastic housing will result in a reduction of detection sensitivity. Please expect a reduction of approximately 20% for every 3mm of thickness.

Troubleshooting:

| | |
|--|--|
| No response at all / lights can not be switched on | <ul style="list-style-type: none">- Check wiring to ensure mains input and the sensor output to the lighting load are correctly connected.- Check if the lighting load is functioned well without sensor control.- Speed of moving objects is not in the range of 0.5-3m/s or the detection range setting is incorrect.- Make sure human movements are under the detection range.- Check if the ambient light level is higher than the desired set level for the daylight sensor. |
| Lights stay on permanently | <ul style="list-style-type: none">- Check if the lighting load is connected to the mains power. Re-wiring to sensor terminals of L'and N.- Continuous movements within the detection area . Check if necessary to change the DIP setting to reduce the detection area / sensitivity.- Hold Time has not expired. Check if the Hold Time setting is longer than expected.- Sensor is installed too close to the reflective surface. e.g, metal, glass or concrete walls...- Please make sure to keep > 300mm space between the sensor and reflective surfaces surrounding. |

Disclaimer

Due to technical reasons, the provided data of the product have usual limitations regarding accuracy and reliability based on the current state of art and technology and are only meant as clue and aid for diagnostic purposes. Therefore, OSRAM shall not be liable for the accuracy and reliability of the provided results including any incorrect data or their incorrect technical interpretation due to the current state of technology.

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