

OSENZA MW3H6D LI **On/Off switch sensor with Microwave detection**

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

It automatically switches luminaires on and off based on movement detection and environmental light level with adjustable settings of the delay time, motion sensitivity and environmental lux level.

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

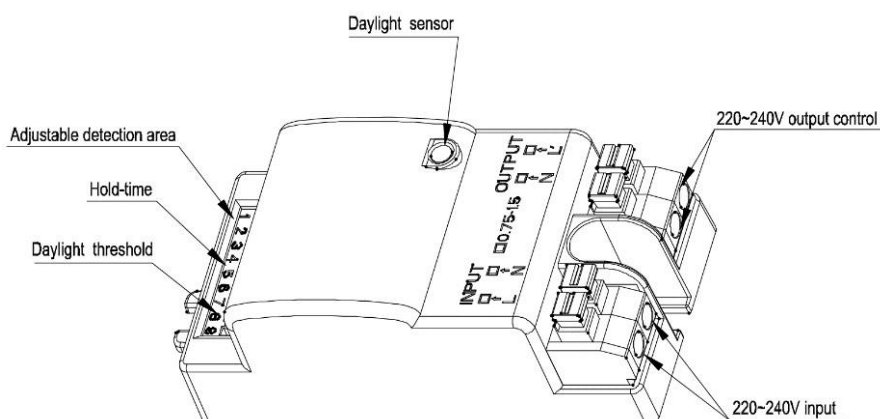


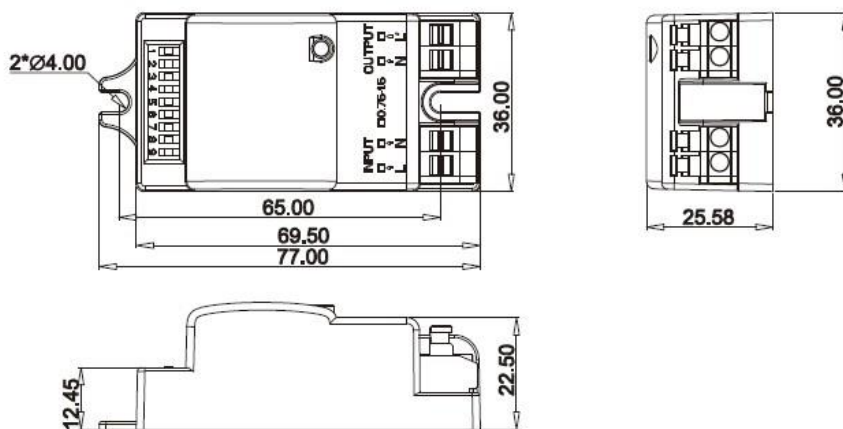
Product Features:

- 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:



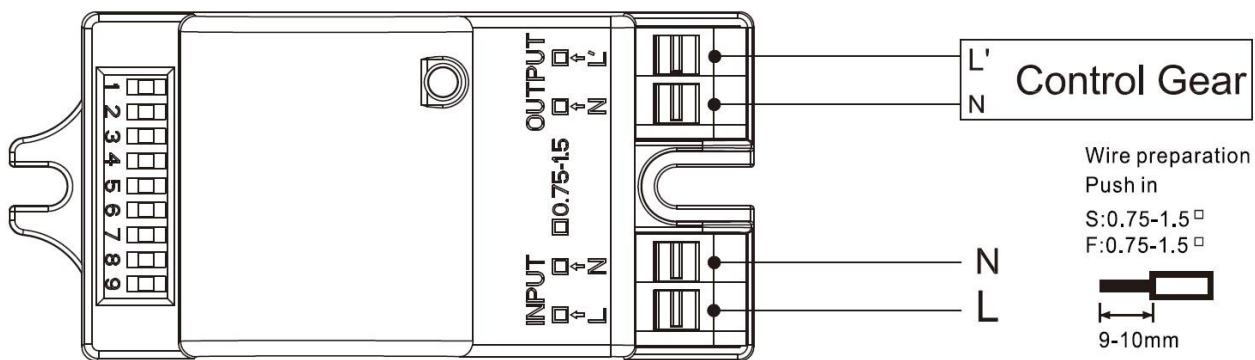


Specifications:

	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...95%(Non-condensing)
	Storage Humidity	0...95%(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
	Standards (tested and passed)	Safety: EN61058-1, EN61058-1-2 EMC: EN300440, EN301489-1, EN55015, EN61547, EN61000-3-2 EN61000-3-3, EN62479
Logistic	Dimensions	77x36x25.6 mm
	Net Weight	38 g
	EAN10	6937186182951
	EAN40	6937186182968
	Pieces per shipping box	150pcs

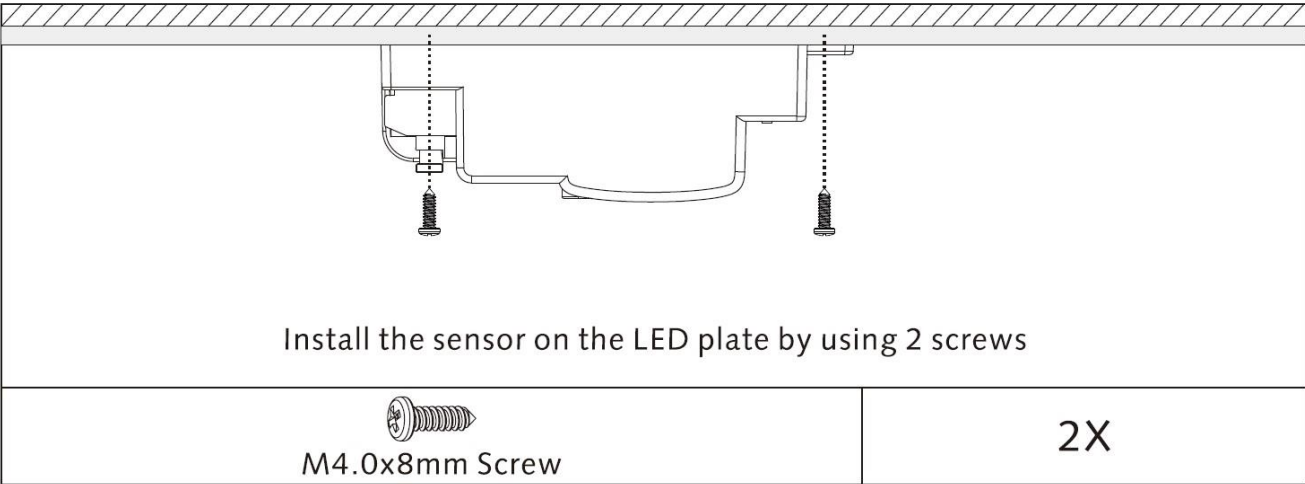
²⁾ Measured at the Sensor

Wiring:



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

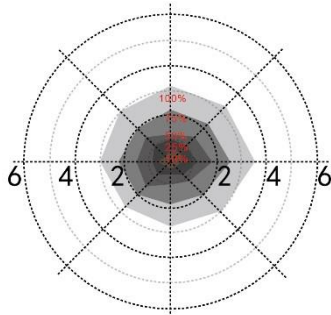
Installation:



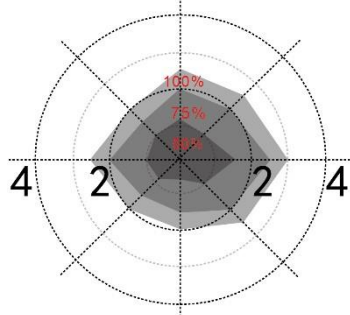
Radiation Pattern:

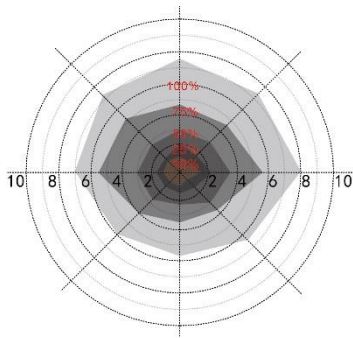
Ceiling mounting

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

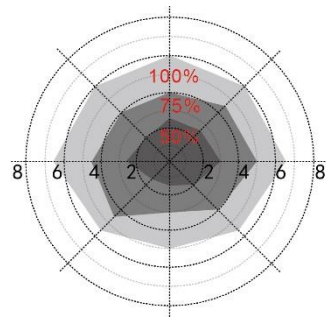


Ceiling mounted height: 6m(*)
Sensitivity: 100%/75%/50%





Slow moving (Speed 0.3m/s)



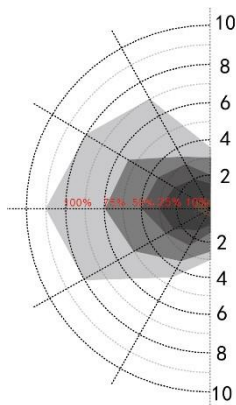
Slow moving (Speed: 0.3m/s)

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

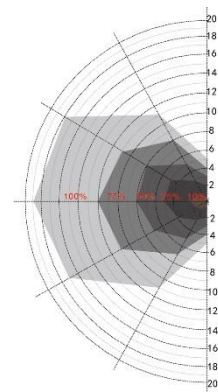
Wall mounting:

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% ¹⁾	ON	ON	ON	5sec ¹⁾	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 ^{1) 2)}
				-	-	-	30min				

¹⁾ Factory default setting;

²⁾ When Lux level threshold is disabled, the sensor will switch on/off the light 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 initial 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 cannot be switched on	- 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	- 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 data provided 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, Inventronics shall not be liable for the accuracy and reliability of the results provided including any incorrect data or their incorrect technical interpretation due to the current state of technology. All information contained in this document has been collected, analyzed and verified with great care by Inventronics. However, Inventronics GmbH is not responsible for the correctness and completeness of the information contained in this document and Inventronics GmbH cannot be made liable for any damage that occurs in connection with the use of and/or reliance on the content of this document. The information contained in this document reflects the current state of knowledge on the date of issue.

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