

QL-SMW01R

MICROVAWE SENSOR

The QL SMW01R is a flush mounting microwave motion sensor module. The module operates on mains power. The sensor is activated by motion i.e. speed and size and being microwave technology it overcomes the temperature restrictions faced by normal IR based sensors. The operating temperature of the sensor ranges from -10°C to 60°C. The time delay, detection distance and daylight threshold is adjustable. It emits a high-frequency electromagnetic wave 5.8GHz and receives its echo. The sensor detects the change in echo from movement in its detection zone. A microprocessor then triggers the switch light ON command. Detection is possible through doors, panels of glasses thin walls.

Specifications

Power Supply

220-240V AC, 50/60Hz

Power Requirement

Standby: 0.6W

Operational: 1.2W

Detection Range Setting

10%, 25%, 50%, 75% and 100%

Hold Time Setting

10s, 30s, 90s, 20min and 25min

Daylight Threshold Setting

5 lux, 10lux, 20 lux and disable

Sensor Principle

Microwave motion detector



Microwave frequency

5.8GHz +/- 75MHz

Microwave Power

<1mW

Detection Range (Adjustable)

Max. 16m @ 20m Mounting Height

Switched Power

400W Max

Detection Angle

30° - 150°

Mounting Height

Min-1.5 Max. 20m

Environment

Ambient Temp: -10°C to 60°C

Relative Humidity: less than 80%

IP Rating

IP20

Safety Regulatory Compliance

CE

Dimensions

75mm (DIA) x 75.8mm (D)

Weight

250g

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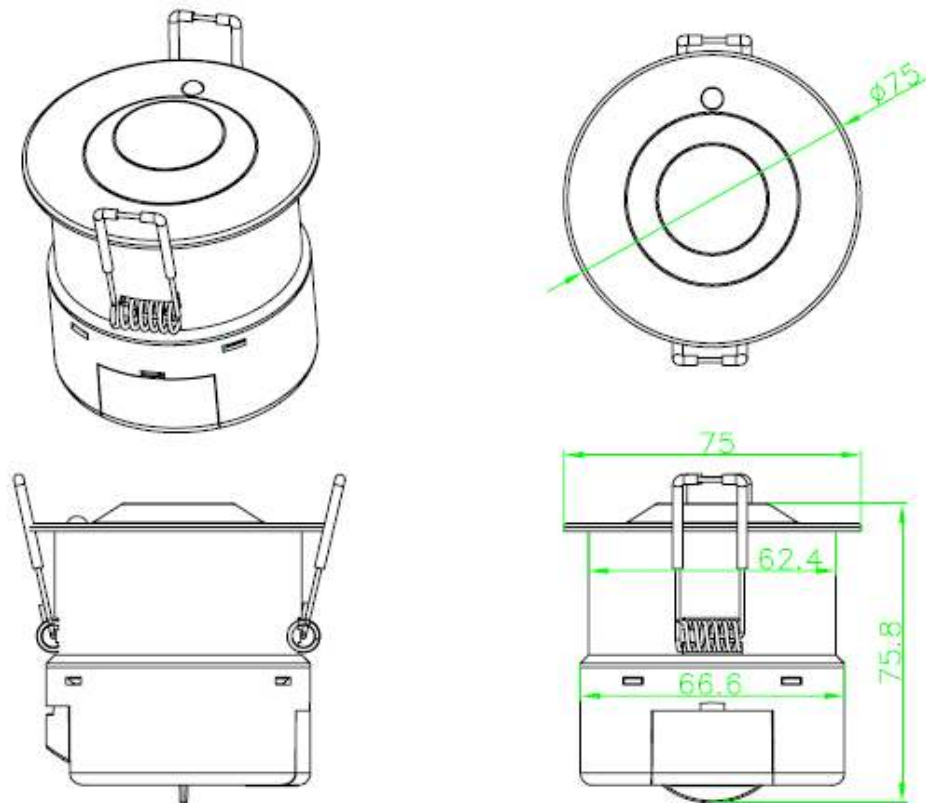


Fig 1. Module Details

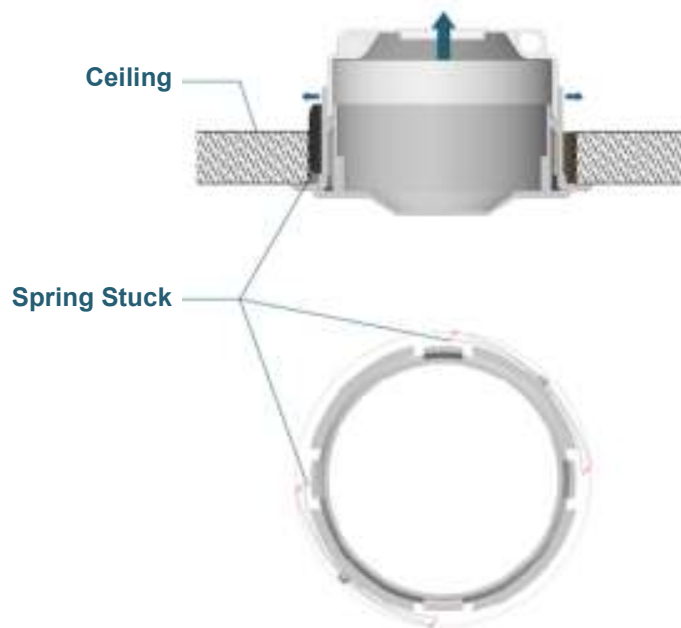


Fig 2. Installation details

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Settings

1. Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely for each specific application.

2. Hold Time

Hold-time means the time period you would like to keep the lamp on 100% after the person has left the detection area.

3. Daylight Sensor

The daylight threshold can be set on DIP switches, to fit for particular application.

"Daylight": The lamp works always, even during daylight.

"Twilight": The lamp works only in twilight.

"Darkness": The lamp works only in darkness.

	1	2	3	
I	●	●	●	100%
II	○	●	●	75%
III	●	○	●	50%
IV	●	●	○	30%
V	○	○	○	10%

- I - maximum range 100%
- II - 75%
- III - 50%
- IV - 30%
- V - 10%

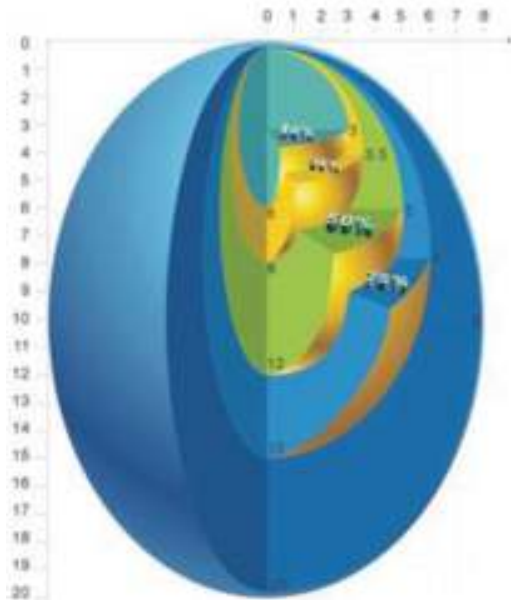
	1	2	3	
I	●	●	●	5s
II	○	●	●	30s
III	●	○	●	180s
IV	○	○	●	300s
V	●	●	○	15min
VI	○	○	○	25min

- I - Walk test mode 5s
- II - 30s
- III - 180s
- IV - 300s
- V - 15 minutes
- VI - 25 minutes

	1	2	3	
I	●	●	●	2 Lux
II	○	●	●	5 Lux
III	●	○	●	20 Lux
IV	○	○	●	30 Lux
V	○	○	○	Disable

- I - 2 lux darkness operation only
- II - 5 lux darkness operation only
- III - 20 lux twilight operation
- IV - 30 lux twilight operation
- V - *daylight, daylight sensor disabled

Fig 3. Internal Sensor and Setting Detail



The mounting height can reach up to 20 meters and provides a very long detection depth of the sensor. The maximum detection depth can reach up to 20 meters, with maximum diameter of 16 meters. The detection area can also be reduced to 75%, 50%, 30% and 10% to meet your Particular need.

- 1m Height 5m Dia coverage
- 2m Height 4m Dia coverage
- 3m Height 1.1m Dia coverage
- .
- .
- .
- .
- 20m Height 16m Dia coverage

Fig 4. Detection Range