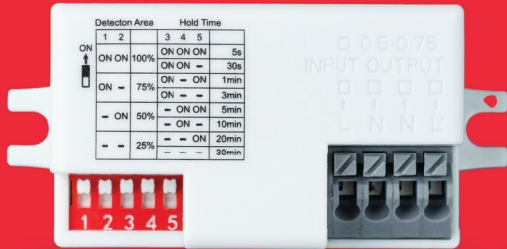


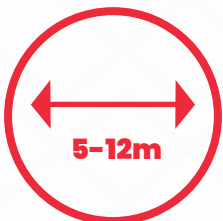
# TECHNICAL DATA SHEET



## NOVA MINI (Microwave Motion Sensor)

### FEATURES

- Compact size design, can be built-in most of light fixtures.
- Simple to operate: adjusting DIP switches to change detection area, hold time and other parameters.
- Input and output terminals are convenient for connecting.



The product is a new energy saving switch; it adopts microwave sensor with high-frequency electromagnetic wave (5.8GHz) and integrated circuit. It gathers automatism, convenience, safety, saving-energy and practical functions. The wide \detection field depends on detectors. When one enters the detection field, it can start the load at once and identify automatically day and night. Its installation is very convenient and its using is very wide. Detection is possible to go through doors, panes of glass or thin walls. This is an ultra-reliable sensor, especially as there are no gaps in the detection zone.

### TECHNICAL SPECIFICATION

#### Input

Rated Voltage	220-240VAC 50/60Hz
Stand-by Power	≤0.2W
Surge Test	L--N: 1kV

#### Output

Output Control	ON-OFF
Load Capacity	200W(Inductive/LED Load) ; 400W (Resistive Load)
Max. Surge Capacity	20A (50% I <sub>peak</sub> , t <sub>width</sub> =500us, 230Vac full load, cold start); 40A (50% I <sub>peak</sub> , t <sub>width</sub> =200us, 230Vac, full load, cold start)

#### Sensor Parameter

Operating Frequency	5.8 GHz ±75MHz, ISM wave band.
Transmitting power	1mW Max.
Detection	100%/75%/50%/25%
Hold time	5s/30s/1min/3min/5min/10min/20min/30min
Mounting Height	Typical Value: 3m (4m Max)

#### Environment

Operating Temperature	-25~60°C
Storage Temperature	-40°C~80°C, Humidity: ≤85% (Non-condensing)
Maximum Shell Temperature (T <sub>c</sub> )	80°C

## Certificate Standard

Certificate	CE
Environmental Requirement	Compliant to RoHS
IP Rating	IP20
Product Category	Class II

## Other

Wiring	Press-in type terminal block, wiring 0.75-1.5 mm <sup>2</sup>
Installation	Built-in
Package	Bubble bag + Clapboard + Carton(K=A)
Net Weight	25.2±3g
Lifetime	4 years warranty

## FUNCTION

### 1. ON/OFF Function



② The sensor switches on the light when motion is detected.



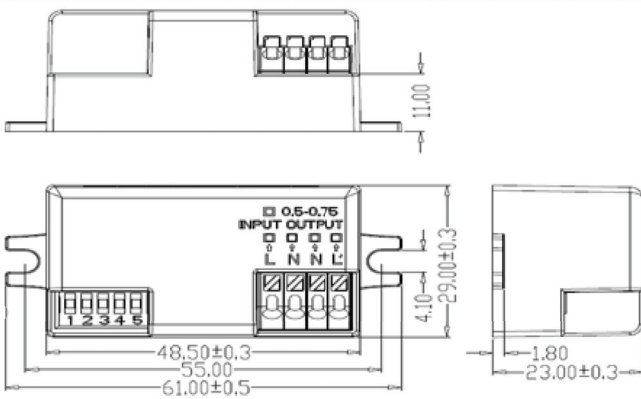
③ After elapse of hold time, the sensor switches off the light when no motion is detected.

### 2. Override Function

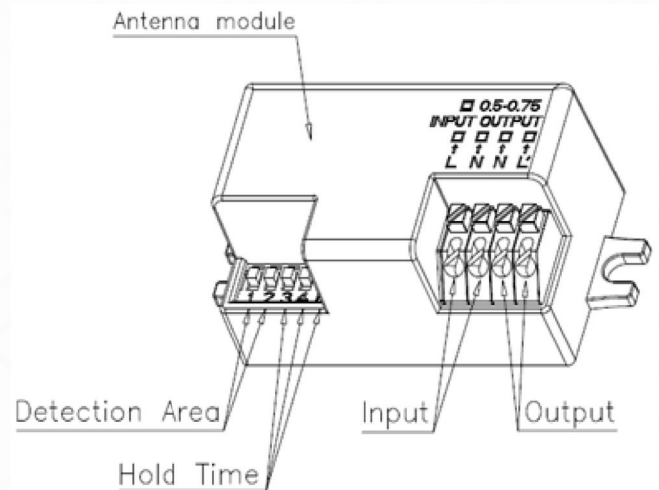
Light will constantly remain on after continuously turning on and off light five times in two second. Recover sensing function when power on again.

## PRODUCT INFORMATION

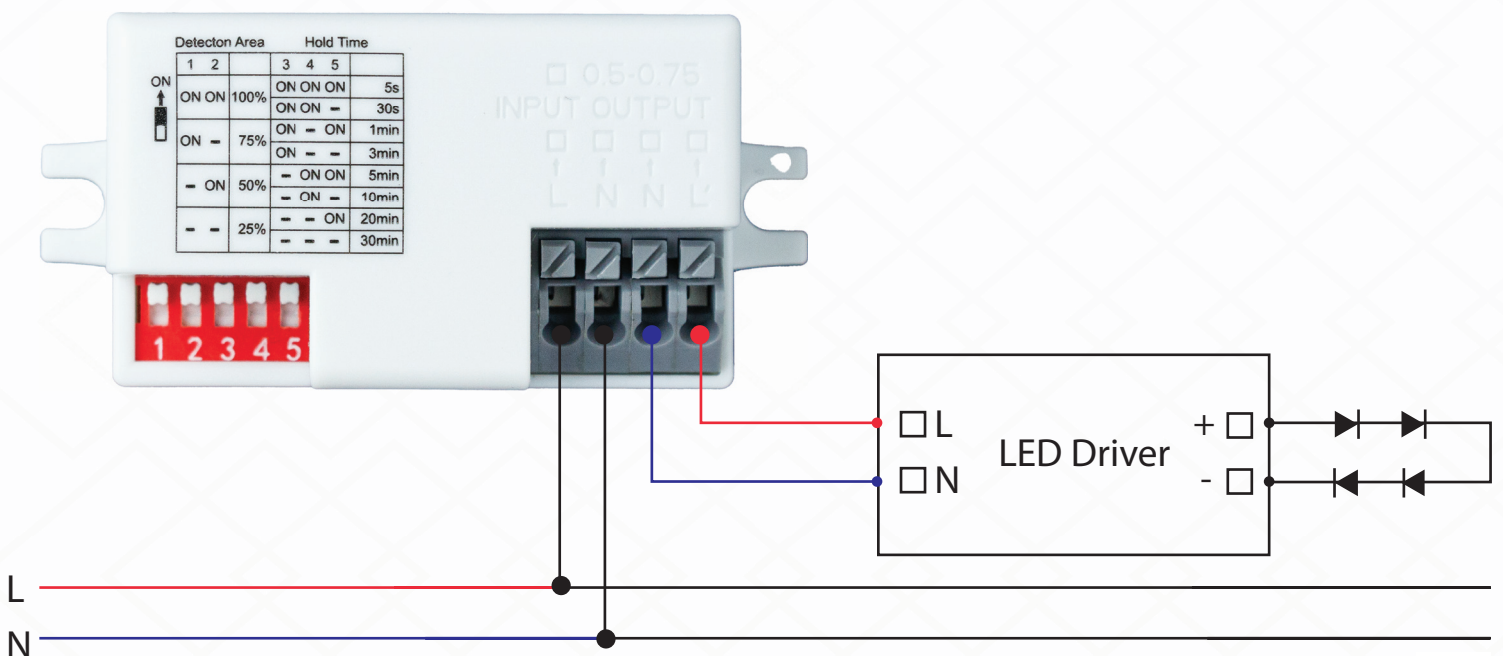
### • Dimension(units: mm)



### • Structure



### • Wiring



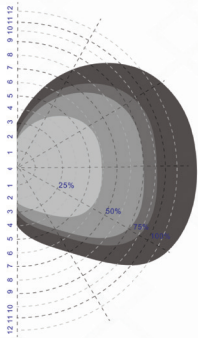
# DIP SWITCH SETTING

Detection Area			Hold Time		
1	2		3	4	5
ON	ON	100%	ON	ON	ON
			ON	ON	-
ON	-	75%	ON	-	ON
			ON	-	-
-	NO	50%	-	ON	ON
			-	ON	-
-	-	25%	-	-	ON
			-	-	-

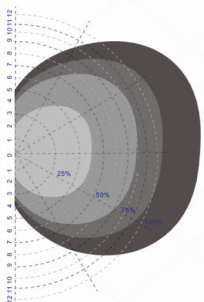


# RADIATION PATTERN

Wall Mounting Height: 2m  
Detection Area: 100%/75%/50%/25%

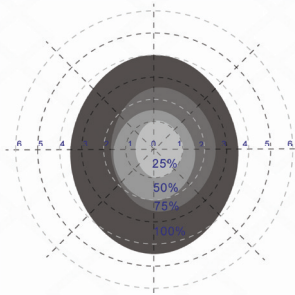


Normal moving (Speed: 1m/s)

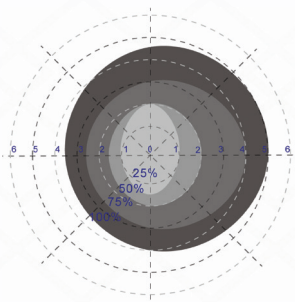


Slow moving (Speed 0.3m/s)

Ceiling Mounting Height: 3m  
Detection Area:  
100%/75%/50%/25%

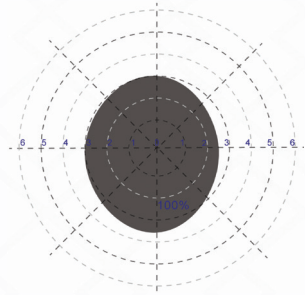


Normal moving (Speed: 1m/s)



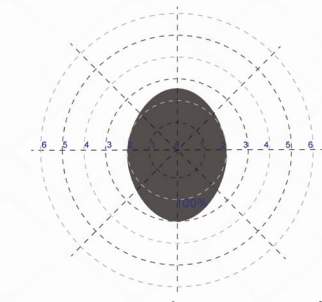
Slow moving (Speed 0.3m/s)

Ceiling Mounting Height: 4m  
Detection Area:  
100%



Normal moving (Speed: 1m/s)

\*When installed at 4m mounting height, sensor with 75%/50%/25% detection area is unable to detect motion signals.



Slow moving (Speed 0.3m/s)

\*When installed at 4m mounting height, sensor with 75%/50%/25% detection area is unable to detect motion signals.



## INITIALIZATION

After power on, the sensor automatically turns on light to 100% brightness and turns off light in 12 seconds. During initialization, sensor is not able to detect movement.

## FACTORY SETTING

**Detection Area: 100%, Hold Time: 5S**

- (1) Sensor should be installed by a professional electrician. Please turn off power before installing, wiring, or setting the DIP switches.
- (2) Microwaves cannot penetrate metal. Do not place product in a closed or a half-closed metal lamp. Neither metal nor glass is not allowed to cover above the product. If antenna needs to pass through the metal plate, please ensure that the top of sensor is close to the metal plate.
- (3) The distance among sensors should be greater than two meters. Keep sensor away from switches, routers and other wireless devices to avoid radio interference, more than two meters. The antenna surface of microwave module should be away from input AC and output DC to avoid low or high frequency signals affecting the normal operation of microwave sensor's antenna.
- (4) Vibration signals will be regarded as moving signals to trigger sensor. Installing sensor should be away from the object that vibrates for a long time, such as large metal equipment, pipes, air conditioning outlets, exhaust vents, smoke exhaust machine ports, shaking fans, etc. Pets in detecting area may trigger sensing.
- (5) Sensor is for indoor use only. The waterproof effect for outdoor or half-outdoor use will be affected. Wind, rain, and moving objects may cause false triggering. When the sensor is installed in a metal lamp, on a metal reflective surface, or in a narrow enclosed device, the microwave will be reflected repeatedly and cause false triggering. Please reduce the sensitivity of sensor or contact manufacturer for technical support.
- (6) This model is suitable for ceiling mounting. If wall mounting, the detecting area will enlarge which makes microwave penetrate wall or light not turn off, and please change sensitivity to 10%. If 10% is useless, please avoid wall mounting or contact the manufacturer for technical support.
- (7) Due to continuous improvement, the contents of this instruction will be changed without prior notice.
- (8) Sensitivity area is related to moving speed of objects, size of moving objects, mounting height, mounting angle, working environment, reflecting materials and etc.
- (9) Given detecting area is typical value that was measured by 165cm high testers in an indoor open environment.
- (10) To achieve the best detection results, the antenna surface of microwave sensor should be at least five millimeters higher than surrounding plates, such as aluminum substrate, glass fiber board and so on.
- (11) When ambient temperature is over 80°C, over temperature protection may be triggered (automatic recovery after cooling)



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