



# Microwave Sensor EL-M014



## Instruction

### Welcome to use EL-M014 Microwave Sensor!

The product is a new saving-energy switch; it adopts microwave sensor mould with high-frequency electro-magnetic wave (5.8GHz), integrated circuit. It gathers automatism, convenience, safety, saving-energy and practicality functions. The wide detection field is consisting of detectors. It works by receiving human motion. 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 through doors, panes of glass or thin walls.

### **SPECIFICATION:**

Power Sourcing: 220-240V/AC

HF System: 5.8GHz CW radar, ISM band

Ambient Light: <3-2000LUX (adjustable)

Rated Load: 1200W (incandescent lamp)  
300W (energy-saving lamp)

Power Consumption: approx 0.9W

Detection Distance: 1-8m (radius) adjustable

### **FUNCTION:**

- Can identify day and night: It can work in the daytime and at night when it is adjusted on the "sun" position (max). It can work in the ambient light less than 3LUX when it is adjusted on the "moon" position (min). As for the adjustment pattern, please refer to the testing pattern.
- SENS adjustable: It can be adjusted according to using location; low sensitivity with 1m for detection distance; High sensitivity with 8m, it fits for large room.
- Time-Delay is added continually: When it receives the second induction signals after the first induction, it will compute time once more on the basic of the first time-delay rest.
- Time-Delay is adjustable. It can be set according to the consumer's desire. The minimum time is 10sec±3sec. The maximum is 12min±1min.

**NOTE: the high-frequency output of this sensor is <10Mw- that is just one 100<sup>th</sup> of the transmission power of a mobile phone or the output of a microwave oven.**

Power Frequency: 50Hz

Detection Range: 360°

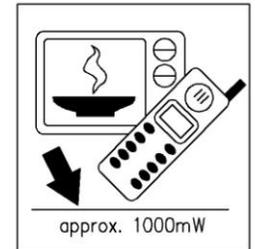
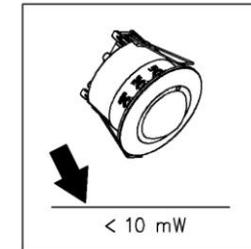
Installing Height: 1.5~3.5m

Transmission Power: <10mW

Time-Delay: min.:10sec±3sec

Max.: 12min±1min

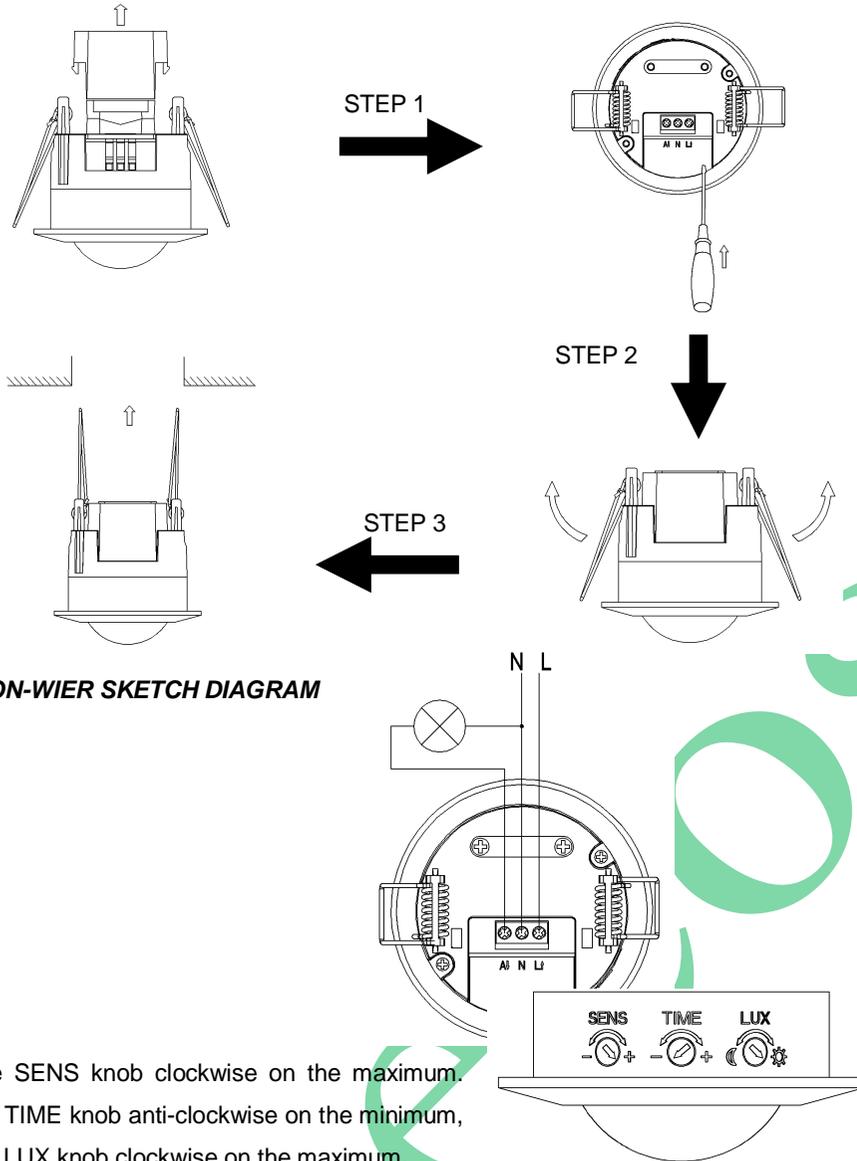
Detection Motion Speed: 0.6~1.5m/s



### **INSTALLATION:** (see the diagram)

- Switch off the power.
- Open the transparent vinyl cover which is at the bottom of the sensor.
- Loosening the screws in the connection terminal, connecting the power and rated load to connection terminal of sensor according to connection sketch map.
- Tighten the screws; put the transparent vinyl cover into the original location
- Folding the metal spring of the sensor upwards, until they are in "I" position with sensor, then put the sensor into the hole or installation box which is on the ceiling, the size is similar with item. Releasing the spring, the sensor will be set in this installation position.

- After finishing installing, the sensor could be connected to the power and tested.



**CONNECTION-WIER SKETCH DIAGRAM**

**TEST:**

- Turn the SENS knob clockwise on the maximum.  
Turn the TIME knob anti-clockwise on the minimum,  
Turn the LUX knob clockwise on the maximum.
- When you switch on the power, the light will be on at once, and 5-30 seconds later will be off automatically. Then if the sensor receives induction signal, it can work normally.
- After 5-10sec of the first detection, the light could work again. If there is no induction signal, the load should be stopped working within 5-15sec.

**Note:** when testing in daylight, please turn LUX knob to ☀ (SUN) position, otherwise the

**sensor could not work!**

**NOTES:**

- The unrest objects can't be regarded as the installation basis-face.
- In front of the detection window there shouldn't be hinder or unrest objects affecting detection.
- Avoid installing it near air temperature alteration zones for example: air condition, central heating, etc.
- In order to avoid the unexpected damage of product, please add a safe device of 6A when installing microwave sensor, for example, fuse, safe tube etc.

**SOME PROBLEM AND SOLVED WAY**

- The load don't work:
  - a. Check the power and the load.
  - b. Whether the indicator light is turned on after sensing? If yes, please check load.
  - c. If the indicator light does not turn on after sensing, please check if the working light corresponds to the ambient light.
  - d. Please check if the working voltage corresponds to the power source.
- The sensitivity is poor:
  - a. Please check the ambient temperature.
  - b. Please check if the signals source is in the detection fields.
  - c. Please check the installation height.
- The sensor can't shut automatically the load:
  - a. If there are continual signals in the detection fields.
  - b. If the time delay is set to the longest.
  - c. If the power corresponds to the instruction.
  - d. If the air temperature changes near the sensor, air condition or central heating etc.