

# Microwave Motion Sensor (MS905)

## User Manual

MS905 is a microwave motion sensor based on 24GHz K-Band. This serves to control similar devices for the opening and closing of automatic doors by detecting the movement of humans or objects. For the safe and accurate use of the product, please read this instruction manual carefully.

### 1 Introduction



- A microwave motion sensor based on 24GHz K-Band.
- Uni-directional or Bi-directional to be set by DIP switch.
- NO/NC to be set by DIP switch.
- Detect sensitivity and angle adjustable.
- Operating Temperature: -40°C to 85°C

### 2 Technical Specifications

**Power Supply** : DC 12~30V, AC 12~24V

**Microwave Module** : 24.150 ~ 24.250GHz

**Contact Hold Time** : 1 second

**Detecting Field** : 4m(W) x 2m(D)  
(Height: 2.3m, Lowest Angle/Highest Sensitivity)

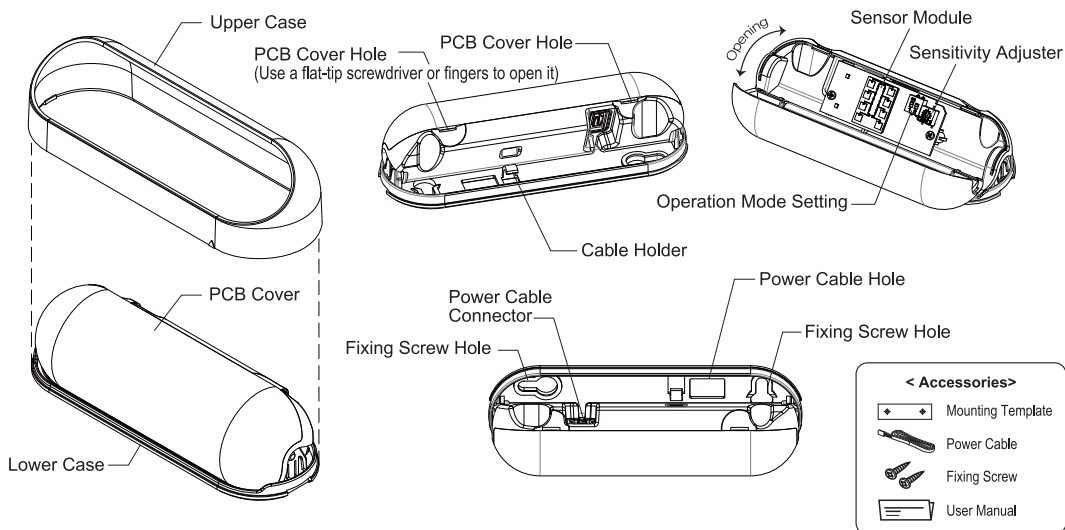
**Current Consumption** : 42mA(DC12V, +25°C)

**Contact Capacity** : 100mA 400V AC/DC

**Max Installation Height** : 3.2m

**Operating Temperature/Humidity** : -40°C~85°C  
R.H.0%~95%

### 3 General Information



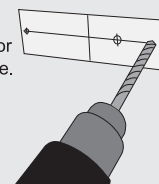
**NOTE** Specification is subject to change without prior notice to improve function and quality of product.

### 4 Installation Guide

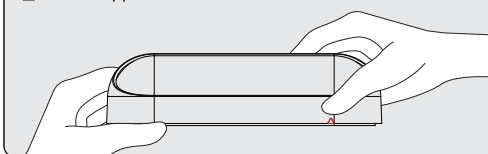
※ Be aware of electric shock and other wiring on site

After connecting a power cable to connector, fix the lower case to the wall and cable to cable holder.

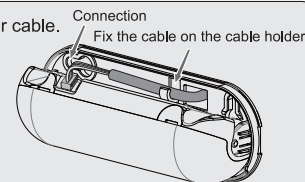
1 Apply mounting template to transom and make holes for fixing screws and power cable.



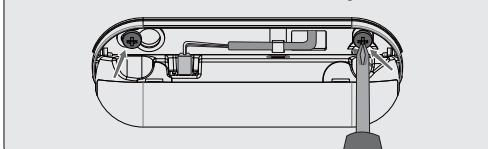
2 Lift the upper case to the direction of arrow.



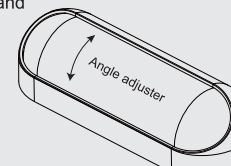
3 Connect the power cable.



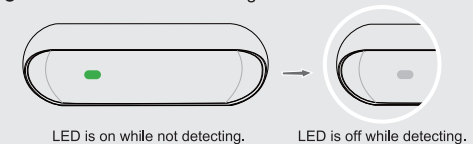
4 Fix the lower case to the wall with fixing screws



5 Assemble the upper case and adjust the detecting area by adjuster.



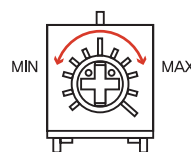
6 LED is on while not detecting.



**⚠ Do not supply the power during engineering work of installation. Do not disassemble or modify the device. it may cause fire or electric shock.**

### 5 Sensitivity Setting

Open PCB cover, set the sensitivity by adjuster.



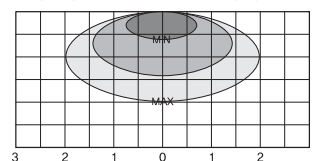
### 6 Operation Mode Setting

Open PCB cover, set the operation mode by DIP switch.

| <div>ON</div> <div><div></div><div></div></div> <div>12</div> | DIP switch       | Position | Mode | Operation                                                  |
|---------------------------------------------------------------|------------------|----------|------|------------------------------------------------------------|
|                                                               | No. 1<br>(Left)  | Up       | BI   | Detects approaching and receding objects. (Bi-directional) |
|                                                               |                  | Down     | UNI  | Detects approaching objects. (Uni-directional)             |
|                                                               | No. 2<br>(Right) | Up       | NC   | Non-detection, Normally Closed                             |
|                                                               |                  | Down     | NO   | Non-detection, Normally Closed                             |

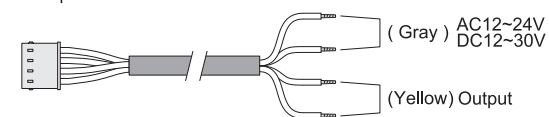
### 7 Detection Area

(Height: 2.3m, optimal angle)



### 8 Wiring Diagram

This product has four wires.

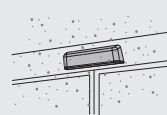


### 9 Installation Caution

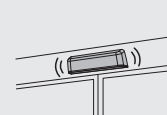
1 Avoid installation where there are moving objects such as leaves.



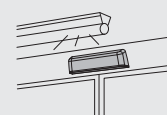
2 Avoid heavy rain and snow.



3 Avoid vibration.



4 Avoid fluorescent light.



# Microwave Motion Sensor (MS905)

## FCC Information

This device complies with part 15 of the FCC Results. Operation is subject to the following two conditions :

- (1) This Device may not cause harmful interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- 1.1. Reorient or relocate the receiving antenna.
- 1.2. Increase the separation between the equipment and receiver.
- 1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
- 1.4. Consult the dealer or experienced radio/TV technician for help.

## WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

“CAUTION : Exposure to Radio Frequency Radiation.

Antenna shall be mounted in such a manner to minimize the potential for human contact during normal operation. The antenna should not be contacted during operation to avoid the possibility of exceeding the FCC radio frequency exposure limit.

## IMPORTANT NOTE:

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.