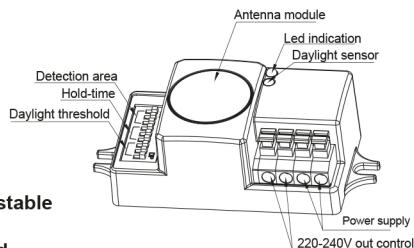


# User Manual of Microwave Motion Sensor Super compact version Model No.:HC005S

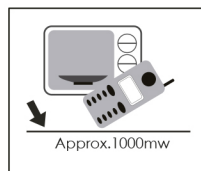
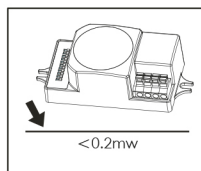
## Technical Specifications

<b>PRODUCT TYPE:</b>	<b>Microwave Motion Sensor</b>
<b>OPERATING VOLTAGE:</b>	<b>220-240VAC~50Hz</b>
<b>HF SYSTEM:</b>	<b>5.8GHz CW radar</b>
<b>TRANSMISSION POWER:</b>	<b>&lt;0.2mW</b>
<b>RATED LOAD:</b>	<b>800W(resistive load), 400VA(capacitive load)</b>
<b>DETECTION ANGLE:</b>	<b>30~150°</b>
<b>POWER CONSUMPTION:</b>	<b>&lt;0.5W</b>
<b>DETECTION RANGE:</b>	<b>Max. 12 meters in diameter, adjustable</b>
<b>TIME SETTING:</b>	<b>5s ~ 30 min.</b>
<b>MOUNTING:</b>	<b>Indoors, ceiling &amp; walling mounted</b>
<b>LIGHT CONTROL:</b>	<b>2~50LUX, disable</b>
<b>Working temperature:</b>	<b>-20 ~ +60℃</b>



NOTE:We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.

The sensor is an active motion detector; it emits a high-frequency electro-magnetic 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.



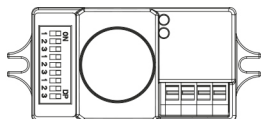
NOTE:the high-frequency output of this sensor is <0.2mW;approximately just 1‰ of the transmission power of a mobile telephone or the output of a microwave oven.

### IMPORTANT

PLEASE READ THESE INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION AND RETAIN THIS LEAFLET IN A KNOWN AND SAFE PLACE FOR FUTURE REFERENCE.

## SECTION 1 INSTALLATION & WIRING

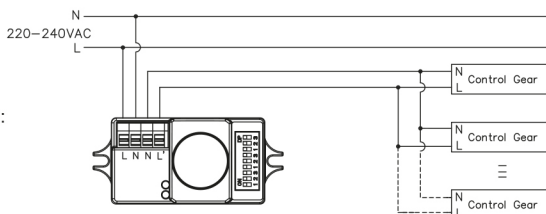
### 1.0 ENSURE THAT THE ELECTRICITY SUPPLY IS SWITCHED OFF COMPLETELY BEFORE INSTALLING OR SERVICING THIS PRODUCT



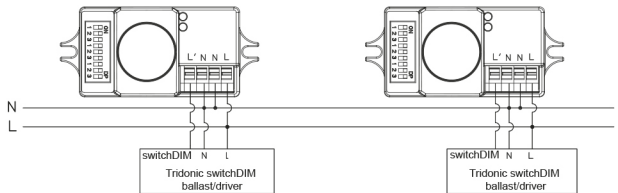
The sensor has a 4-wire electrical interface:

- Nx2(neutral / 220-240VAC)
- L (phase / 220-240VAC)
- L' (switched phase / output)

To connect several standard control gear with 1 sensor(ON-OFF function),the wiring should be:



With Tridonic switchDIM ballast / driver ( Excel ballast/driver, corridor function ) , this sensor can also achieve tri-level dimming control:



1.1 This sensor is suitable for indoor use, and is also designed for installation Max. 6m in height.

\* While sensor use with dimming ballast/driver, please keep the sensor antenna module from the ballast/driver and lamp filament by at least 80mm.

## SECTION 2 SETTINGS

### Detection range:

This determines the effective range of the motion detector and is set by DIP switches at the sensor itself, refer to figure. Note that reducing the sensitivity will also narrow the detection range.

The following settings are available:

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

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



### Hold time:

This determines the time the fitting remains at 100% level on motion detection and is set with DIP switches at the sensor itself, refer to figure. The walk test setting is useful when installing the fitting to establish correct operation and range.

The following settings are available:

- I - Walk test mode 5s
- II - 30s
- III - 1 minute
- IV - 5 minutes
- V - 10 minutes
- VI - 20 minutes
- VII - 30 minutes

	1	2	3	
I	●	●	●	5s
II	○	●	●	30s
III	○	○	●	1min
IV	○	○	●	5min
V	○	○	●	10min
VI	○	○	●	20min
VII	○	○	○	30min



### Daylight sensor:

This setting holds off the 100% light output should there sufficient daylight and is set using DIP switches at the sensor, refer to figure. The following settings are available:

- I - Disabled
- II - 50 lux
- III - 20 lux
- IV - 5 lux
- V - 2 lux

	1	2	3	
I	●	●	●	Disable
II	○	●	●	50 Lux
III	○	○	●	20 Lux
IV	○	○	●	5 Lux
V	○	○	○	2 Lux



\* In disable mode the lamp(s) will always be on with motion detected and operate at 100% light output, even in bright daylight.

## SECTION 3 FUNCTION

### Zero-cross relay operation

Designed in the software, sensor switches on/off the load right on the zero-cross point, to ensure the min. current passing through the relay contact point, and enable the max. load and life-time of the relay.

## SECTION 4 TROUBLE SHOOTING

MALFUNCTION CAUSE REMEDY	CAUSE	REMEDY
The load will not work	Incorrect light-control setting selected	Adjust setting
	Load faulty	Replace load
	Mains switch OFF	Switch ON
The load is always on	Continuous movement in the detection zone	Check zone setting
The load is on without any identifiable movement	The sensor is not mounted for reliably detecting movement	Securely mount enclosure
	Movement occurred, but not identified by the sensor (movement behind wall, movement of small object in immediate lamp vicinity etc.)	Check zone setting
The load will not work despite movement	Rapid movements are being suppressed to minimise malfunctioning or the detection radius is too small	Check zone setting