



# **Microwave Contactless Sensor-Switch**

The U-WAV is a microwave contactless sensor switch that can be operated either in the 'Sense' or 'Switch' mode. In the 'Sense' mode, detection of motion will lead to the activation of output relay. In the 'Switch' mode, the output relay will toggle when motion is detected.

The U-WAV is particularly suitable for clean rooms, sterile areas and hospitals where a very hygenic environment is required.

#### TECHNICAL SPECIFICATIONS

Technology : Microwave Radiated Frequency : 10.525 +/-0.005GHz

: 4.0 - 20 in **Detection Range Detection Mode** : Motion

Operation Mode

Sense : Activate when there is a motion

Switch: Relay toggles when there is motion

Supply Voltage : 12 - 24 VAC/DC

Mains Frequency : 50 - 60 Hz **Power Consumption** : < 1W @ 12V

: 24 VDC/120VAC

Holding Time (Adjustable)

Relay Output Ratings

: 0.5 - 10 sec 'Sense' Mode

Masking Time (Adjustable)

'Switch' Mode : 3 - 10 sec Temperature Range : -4 - 131 F Relative Humidity : up to 95%

Weight : < 3 oz

Dimensions : 3.4" x 3.4" x 1.2"

: White Front Cover Color

#### DESCRIPTION

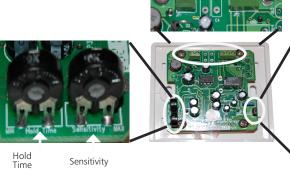


with cover separated



Cover Frame

Terminal blocks for power supply cables and relays

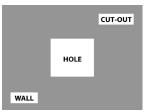


For 'Switch' mode, short the jumper.

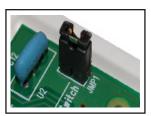


Sense' or 'Switch mode jumper

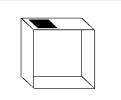
#### INSTALLATION & MOUNTING INSTRUCTIONS



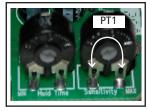
Cut out a hole in the wall. (Dimension: TBD)



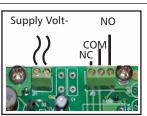
Select operation mode: ('Sense' mode - Open) ('Switch' mode - Short)



2. Cut out a hole for cable entry on the mounting box. (Not sup-



Select required detection range, adjust PT1 (Sensitivity).



Pull the cable through the hole and secure it to the terminal block with the screws



For 'Sense' mode ONLY 6. Adjust PT2 (Hold time) to select desired holding time.





### INSTALLATION & MOUNTING INSTRUCTIONS (cont.)



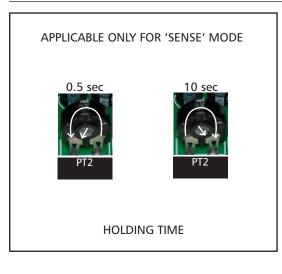
7. Use a screwdriver to pry the cover frame from the sensor switch.

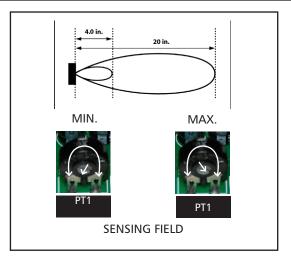


8. Power up the sensor and check whether the LED lights up.

- 9. Check the sensitivity and repeat setp 5 if necessary.
- 10. Push the sensor swtich into the box and screw the sensor tight.
- 11. Push the cover frame back onto the sensor to secure

## SETTING THE SENSING FIELD AND HOLDING TIME





## TROUBLE SHOOTING

| SYMPTOM   | CORRECTIVE ACTION   |
|---|---|
| LED does not light up or blink (upon being powered up). | <ol> <li>Check if the cable is screwed tight.</li> <li>Check whether the supply is switched 'ON.'</li> </ol>  |
| Door does not open.                                     | <ol> <li>Check if LED is switched ON.</li> <li>Check the sensor's connection.</li> <li>Check the sensor Output (relay NC/NO) connections.</li> </ol>                            |
| Door remains permanently open.                          | <ol> <li>Check Holding Time (PT2).</li> <li>Check for surrounding disturbance.</li> <li>Reduce the Sensitivity level (PT1)</li> <li>Check if it is in 'Switch' mode.</li> </ol> |

#### FCC ID: RQL336806

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, 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 a Class B device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 to correct the interference by one or more of the following measures:

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

The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the users authority to operate this equipment.

