

## WH2630A & B

### Wireless Humidity and Temperature Wall Sensor

#### General Description

The WH2630 is a battery operated spread spectrum wireless wall humidity and temperature sensor.

Trs Systems Series 2000 wireless sensors utilize reliable Spread Spectrum Mesh Network Radio technology. They can be installed easily in minutes eliminating hundreds of feet of wire and saving installation cost while reducing installation labor risks.

The WH2630 sensor Data-Link LED confirms the data transmission was received by the receiver for fast and reliable positioning of the sensor during installation. *There is no need for special wireless installation equipment or tool.*

Together with the Trs Systems Series 2000 receivers and controllers, the Trs Systems wireless sensors can be used with any LON, BacNet, MODbus, or DDC control system or panel.

The maximum radio transmission distance is dependent on building type. The maximum open air transmission distance is one mile. In a typical commercial building with steel I-beam construction, concrete floors with reinforcing rod, and metal stud walls, it can be expected that transmissions will penetrate vertically through floors and horizontally through 200 to 500 feet of walls, furniture and air.

#### Ordering Information

<u>Model</u>	<u>Description</u>
WH2630A	Wireless wall humidity (3%) sensor
WH2630B	Wireless wall humidity (3%) and temperature sensor



#### Features

- 0-100% RH measurement
- 32 F to 104 F
- +/- 3% accuracy (10-90% RH)
- +/- 1 degree F
- Advanced RH sensor technology
- NO calibration required
- Excellent long term stability, response time and reset rate
- Battery powered sensors
- Wireless – easy to install & relocate
- Long battery life (approximately 3 years with one battery)
- Low battery LED + remote low battery alarm notification
- Reliable Spread Spectrum Mesh Network radio technology

#### Specifications

##### Input Voltage:

- Battery - Type 3.0V LiMNO2 1400 mAH (Duracell DL123A)

##### Dimensions:

- 4.50" x 2.75" x 1.50"

##### Operating Conditions:

- Temperature 32 F to 104 F
- Humidity 0 to 100% RH non-condensing

##### Sensing Accuracy:

- +/- 1 degree F
- +/- 3% RH (10 to 90% RH)

##### Open Field Range:

- One mile line of sight

##### Construction:

- Two-piece construction
- Locking Cover
- White Plastic

##### Transmitter Characteristics:

- Center Transmit Frequency
  - 923.58 MHz
- Transmitter Power - 11dB

##### Approvals:

- FCC certified

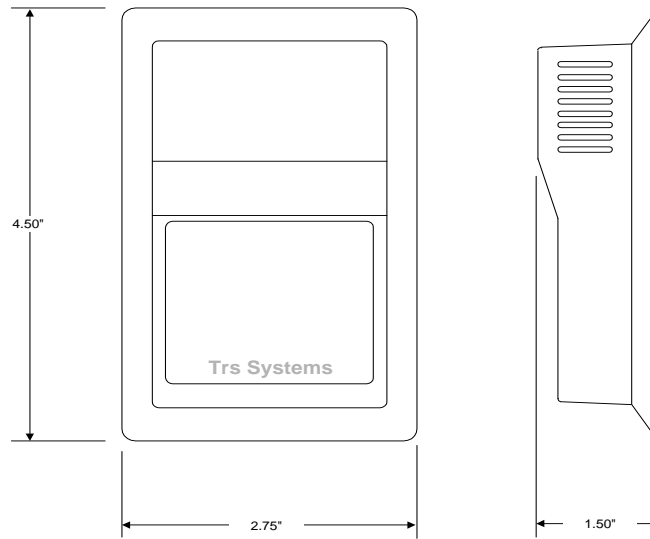


Figure 1

## Installation

Wireless wall sensors should be installed within 200 to 500 feet of the receiver. RR2552 signal repeaters can be installed as to increase transmission distance between sensors and receivers.

### **CAUTION**

Observe battery polarity when installing battery.

To select the proper sensor location first install and power the receiver. Observing polarity insert the battery into the sensor to activate it. The mesh networked Series 2000 system does not require any additional wireless equipment to determine the proper location of the sensors.

While the sensor is attempting to connect to the receiver the Data-Link LED will blink rapidly 8-10 times every 10 seconds. Once a connection has been established the Data-Link LED will blink once to indicate the data transmission has been received successfully. The Data-Link LED will continue to blink once for every data transmission. The data transmission rate is programmed into the sensor (normally 1 minute intervals). To manually initiate a data transmission press the push button switch located by the negative terminal of the battery.

Once the sensor location has been determined mount the subbase on an inside wall approximately 4.5 ft. from the floor (or in the specified location) to allow exposure to the average zone temperature using two #8 screws, Velcro™ or double sided tape.

### **CAUTION**

Sensors, Repeaters and receivers should **NOT** be installed in the following areas:

- Inside metal enclosure/panel
- Inside or immediately next to elevator shaft/elevator banks
- In front of or immediately next to large trees or a large body of water

Transmission distance and performance will be drastically reduced.

Locate and record the wall sensor ID Number located on a label on the back of the subbase prior to mounting.

Do not mount the sensors on an outside wall, on a wall containing water pipes or near air ducts. Avoid locations that are exposed to discharge air from registers or radiation from lights, appliances, or the sun.

Attach the wall sensor to the subbase by tightening the two locking screws at the bottom of the subbase.

**NOTE:** The locking screw must be installed for a secure installation. The screws are turned counter-clockwise to secure the cover.

The sensor has a Low Battery LED that will start to blink continuously when the battery voltage is low. A low battery signal is also sent to the receiver for remote indication that the battery should be replaced. If the battery is not replaced in approximately 2 months the battery voltage will become so low that the Low Battery and Data-Link LEDs will not blink. Replace the battery and the Data-Link LED will start blinking while the sensor is re-establishing communications with the receiver.

### **CAUTION**

**Do not use this product in any safety related applications where human life may be affected.**

*Limitation of Liability - Trs Systems' liability shall not exceed the purchase price paid for the products giving rise to any liability. In no event shall Trs be liable for any special, consequential or incidental damages arising in any way from using this product by the customers.*

Trs Systems Inc.

Wireless Transmitters, Receivers and Sensors  
For All Your Applications