

## WT2630A, B, C Wireless Wall Temperature Sensors

### General Description

The mesh network Series 2000 WT2630 is a battery operated spread spectrum wireless wall temperature sensor or thermostat.

The override button (B & C models only) located on the side of the sensor housing can be assigned to a digital output in the Trs Systems Series 2000 family of receivers for occupancy override or similar applications.

The setpoint adjustment (B Model only) can be assigned to an analog output in the Series 2000 receiver. The output will then be used by a controller for a variety of control setpoint ranges (user defined) and other applications such as dimming of light and window blinds control.

Trs Systems mesh network Series 2000 wireless sensors utilize reliable Spread Spectrum 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 Series 2000 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>
WT2630A	Wall sensor only
WT2630B	Wall Sensor with setpoint adjustment and override push button
WT2630C	Wall sensor with override push button



### Features

- NO calibration required
- Flexible user defined setpoint range
- Setpoint slider can also be used for a variety of other applications such as window blind or lighting controls
- Battery powered sensors
- Mesh Network Wireless – easy to install & relocate sensors without additional wireless installation tools
- Sensor Data-Link LED confirms connection with Series 2000 receivers
- Long battery life (4-5 years)
- Low battery LED + remote low battery alarm notification

### Specifications

#### Input Voltage:

- Battery - Type 3.0V LiMNO2 1400 mAh (e.g. Duracell DL123A)

#### Dimensions:

- 4.50" x 2.75" x 1.50"

#### Operating Conditions:

- 32 F to 104 F
- 5 to 95% RH non-condensing

#### Setpoint temperature label (WT2630B):

- Warm – Cool or
- 65 F to 85 F

#### Open Field Range:

- One mile line of sight

#### Construction

- Two-piece construction
- Locking Cover
- White Plastic

#### Space Temperature Sensor

- Sensing Range 32 F to 104 F
- Accuracy +/- 1 F
- 12 Bit Resolution

#### Transmitter Characteristics

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

#### Approvals - RF

- FCC certified

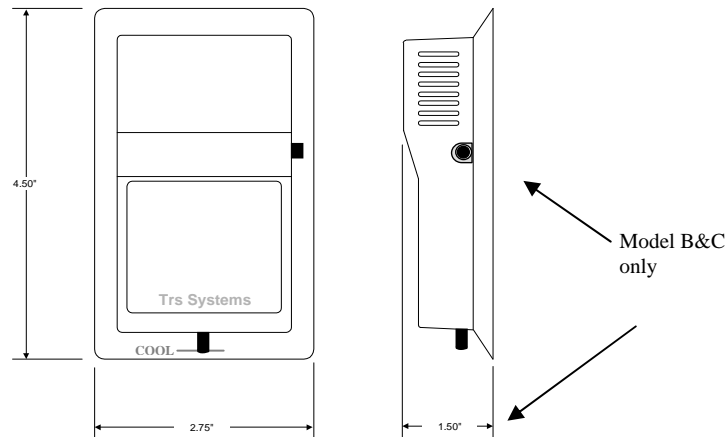


Figure 1

## 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.

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.*