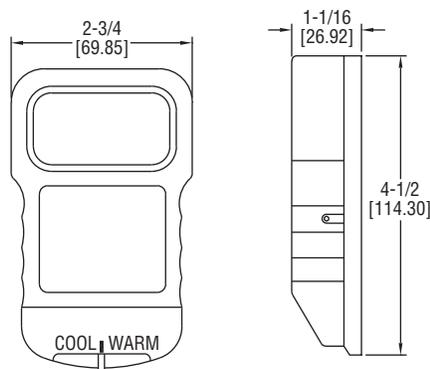# Series WTP-W Wireless Wall Mount Temperature Sensors

Specifications - Installation and Operating Instructions

The Series WTP-W Wireless Wall Mount Temperature Sensors allows flexibility in office buildings with cubicles or in hotel rooms. Without any wires to limit the location of the sensor, it can be moved quickly without any interruption in temperature measurement. Optional temperature set point and manual override features allow users to adjust temperatures to make the ambient conditions more comfortable.

A reliable 418 MHz signal can carry the measurements up to 100 feet without a repeater. With the optional 900 MHz repeater, measurements can be transmitted up to 1000 feet away.

MOUNTING
Use the base plate to mark two holes on the surface that the sensor will be mounted. Drill two 3/16″ holes in the center of each marking. Insert drywall anchor into each hole. Attach back plate to surface using the provided #6 screws into anchors. Install batteries into battery clips while observing the polarity marked on the circuit board. Attach cover and use Allen wrench to tighten locking screw until it is flush with bottom of cover.
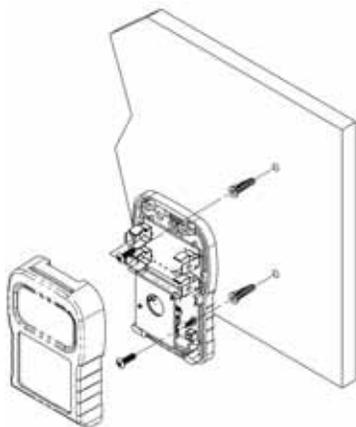
SPECIFICATIONS
Temperature Range: -40 to 185°F (-40 to 85°C).
Accuracy: ±0.54°F (±0.3°C).
Temperature Limits: 32 to 140°F (0 to 60°C).
Humidity Limits: 5 to 95% RH non-condensing.
Power Requirements: 2 AA 3.6V lithium batteries.
Transmitter Interval Rate: Approximately 10-15 seconds.
Housing Material: ABS plastic.
Enclosure Rating: UL 94 V-0.
Antenna: 418 MHz - Built inside enclosure.
Weight: 0.25 lb (113 g).
FCC Approval: FCC ID# T4F061213RSO.
Agency Approvals: RoHS.

NOTICE	When inserting batteries, observe polarity markings inside unit for proper operation.
NOTICE	It is best to train output modules before mounting the transmitters.

Figure 1: Mounting Diagram

Training Output Models
Temperature/Set Point Output Modules
- Attach desired output modules to receiver as described in output module manual.
- Apply power to the receiver and output modules (LED on receiver should be lit. LED on output module will flash and go out).
- Remove the lid of sensor and install the batteries (observe polarity). LED located at the bottom right of the circuit board next to the set point adjustment knob (if equipped) will flash every 10 seconds.
- Press and hold the plastic service button on the output module to be programmed. At the same time, press for one second and release the button on the sensor. When the LED on the output module lights, release the service button. The LED on the output module will go out after the button is released.
- Output module LED will flash when it receives data from sensor.
- If equipped, set point adjustment should be programmed to a WM-S output module using the above steps except you will push the override button on the sensor instead of the transmitter training button (on sensors that are not ordered with external override buttons, the override button is located inside the housing).
- The override button can be programmed in parallel with a previously trained set point or temperature output module or using a separate output module. See below section on training override output modules in parallel or use same steps as training the set point adjustment when using a separate output module.
- Close cover and mount the transmitter to location within 100 feet of receiver.
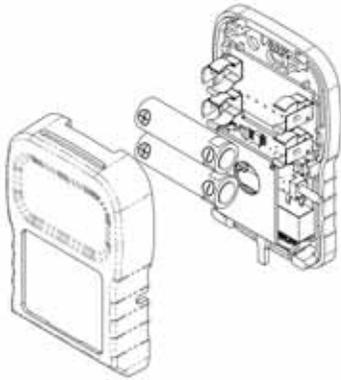

Figure 2: Polarity of Battery Installation

Override Output Module in Parallel to Temperature or Set Point
When override button is trained in parallel to the temperature or set point output module, that output module will measure its lowest value for 5 seconds when the override button is pressed. Then, it will resume its normal operation.
- If temperature or set point output module has not been trained, please train that module before proceeding.
- Remove output module cover by squeezing the top and bottom of the housing.
- Apply power to the receiver and output module (LED on receiver will remain lit).
- Remove the cover from the sensor and insert the batteries (observe polarity). LED located at the bottom right of the circuit board will flash approximately every 10 seconds.
- On the output module, move the jumper labeled J4 to the training position (see Figure 4).
- Press and hold the SW1 next to the LED on the output module.
- At the same time press for one second and release the override button on the sensor. When the LED on the output module lights, release the service button. The LED on the output module will go out after the button is released.
- On the output module, move the jumper labeled J4 to the storage position.
- Replace the cover on the output module.
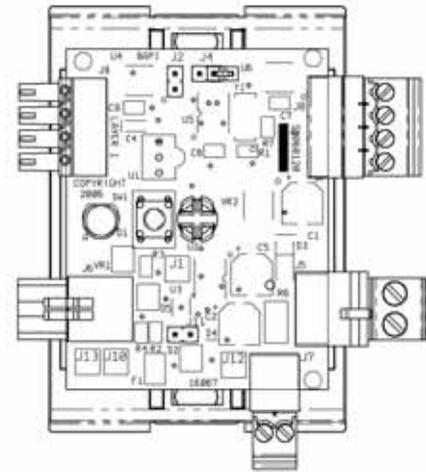- Mount the sensor within 100 feet of a repeater or receiver.

Figure 3: Output Module

Training Position   Storage Position

Figure 4: J4 Jumper on Output Module

DIAGNOSTICS

Error	Required Action(s)
Temperature reading is incorrect	• Check wire from output modules to controller for proper connections and polarities. • Check to see if the controller's software is configured correctly. • Check transmitter to see if its LED flashes every 10 seconds. If not, change batteries. • Check power to the receiver and output module. • Check output module LED. If blinking fast, retrain output module.
Output module red LED flashing rapidly	• Check transmitter to see if its LED flashes every 10 seconds. If not, change batteries. • Retrain output module.
Temperature reading is coming out of wrong output module	• Retrain output module.

MAINTENANCE, CLEANING AND REPAIR
After final installation of the unit, no routine maintenance is required. A periodic check of the system calibration is recommended. The Series WTP-W is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.