# Quick Start Guide

Room Temp Sensors without Displays   **For RTS100**

Please read this entire document to familiarize yourself with the installation and wiring instructions for the RTS100

The RTS100 is a wall mounted Room Temperature Sensor, that can be ordered with options for Set-Point Adjustment, Occupancy Switch or an Ethernet connection.

- **Room Temperature Sensor** (all units): The sensor on this unit is a Type II thermistor (10K Ohm @ 77° F (25° C).

- **Set Point Adjustment Option**: The set point slider option is a 0 to 10K Ohm potentiometer and labeled Cool / Warm on the housing. The input on your controller can be scaled and limited to the range of temperature adjustment per your requirements.

- **Occupancy Switch Option**: The occupancy switch provides a momentary contact closure as a signal to an external controller to initiate a sequence of operation. This switch can be configured in parallel with the sensor, set point, or as a separate momentary output.

- **Ethernet Connection Option**: This is a RJ45 connection under the front cover that can be wired with CAT5 communication wire to a remote mounted controller, allowing the technician to access the controller remotely.
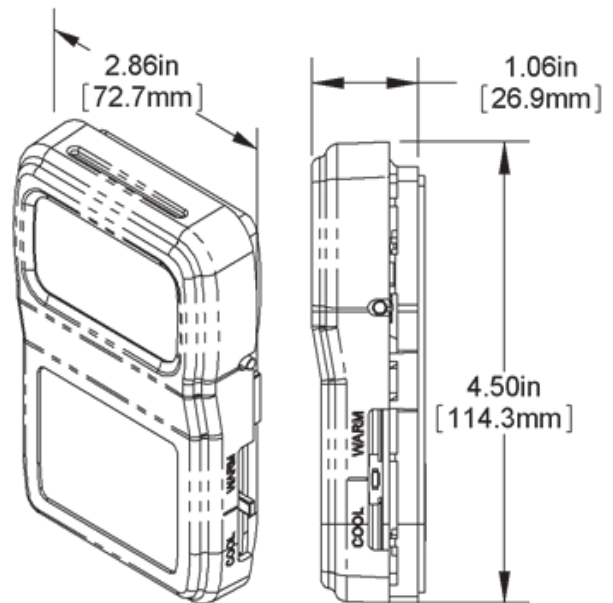
JUNCTION BOX MOUNTING

1. Pull the wire through the wall and out of the junction box, leaving about six inches free.
2. Pull the wire through the hole in the base plate.
3. Connect the Ethernet cable to the RJ45 connector (if required).
4. Secure the base to the box using the #6-32 x 1/2 inch mounting screw provided.
5. Terminate the unit according to the guidelines in the **Termination** section.
6. Attach Cover by latching it to the top of the base, rotating the cover down and snapping it into place.
7. Secure the cover by backing out the lock-down screws using a 1/16" Allen wrench until they are flush with the bottom of the cover.

DRYWALL MOUNTING

1. Place the base plate against the wall where you want to mount the sensor.
2. Using a pencil, mark out the two mounting holes and the area where the wires will come through the wall.
3. Drill two 3/16" holes in the center of each marked mounting hole. Insert a drywall anchor into each hole.
4. Drill one 1/2" hole in the middle of the marked wiring area.
5. Pull the wire through the wall and out of the 1/2" hole, leaving about six inches free.
6. Pull the wire through the hole in the base plate.
7. Secure the base to the drywall anchors using the #6 x 1 inch mounting screws provided.
8. Terminate the unit according to the guidelines in the following section.
9. Attach Cover by latching it to the top of the base, rotating the cover down and snapping it into place.
10. Secure the cover by backing out the lock-down screws using a 1/16" Allen wrench until they are flush with the bottom of the cover.


NOTE: *In a wall-mount application, the mixing of room air and air from within the wall cavity can lead to erroneous readings, condensation, and premature failure of the sensor. To prevent this condition, plug the conduit hole with insulation in the junction box.*

TERMINATION

Accutrol recommends using twisted pair of at least 22AWG and sealant filled connectors for all wire connections. Larger gauge wire may be required for long runs. All wiring must comply with the National Electric Code (NEC) and local codes. Do NOT run this device's wiring in the same conduit as AC power wiring. Our tests show fluctuating and inaccurate signals are possible when AC power wiring is in the same conduit as the

STOP Accutrol recommends wiring the product with power disconnected. Proper supply voltage, polarity and wiring connections are important to a successful installation. Not observing these recommendations may damage the product and void the warranty.
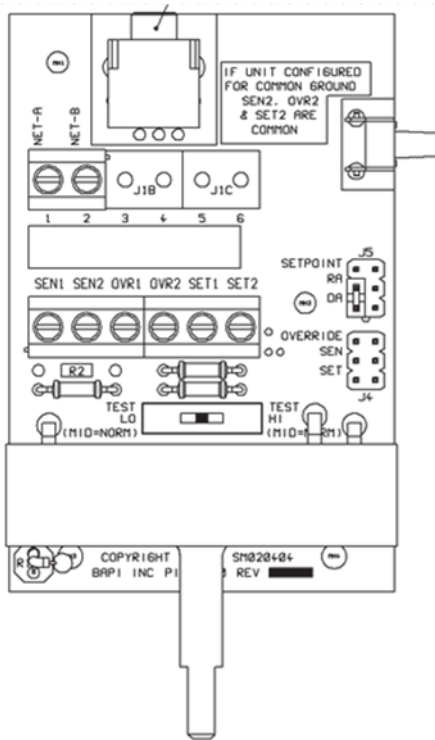
Terminal	Description
SEN1 & EN2…...	Resistive Temp. Sensor Output. No polarity *
SET1 & SET2….	Resistive Set Point Output, No polarity *
OVR1 & OVR2…	Override output (Dry contact) the contact is configured as a separate momentary contact *

* Grounding Note

These units have an Internal Common Connection as a Common Ground for several of the terminations. Please maintain polarity to prevent damage to sensor board and external controller.

Jumper Settings

J5 Options

Set point Reverse Acting (RA):

Set point Direct Acting (DA):

J4 Common Ground

Override in parallel with setpoint:

Override in parallel with sensor:

Override as a separate input:

Specifications subject to change without notice