BAPI-Stat “Quantum Slim” Room Temperature Sensor

Installation & Operations

40063_ins_quantum_slim rev. 08/21/17

Overview and Identification

The new BAPI-Stat “Quantum Slim” Temperature Room Sensor is designed for applications where a temperature output is required with a sleek, low profile room enclosure. Available with thermistor and RTD elements. Ideal for locations where aesthetics are as important as the temperature measurement.

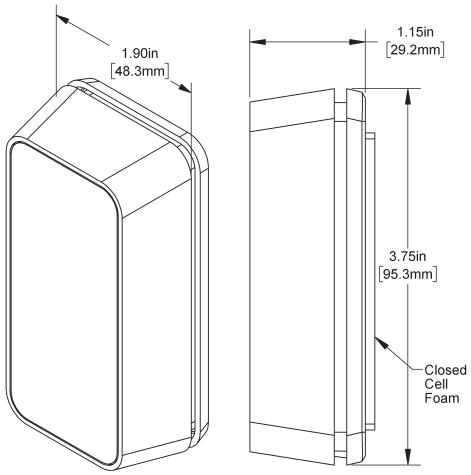
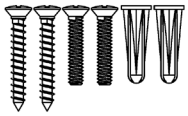


Fig. 1: BAPI-Stat “Quantum Slim” Room Temperature Sensor and included screw pack.



Drywall Mounting

1. Place the base plate against the wall where you want to mount the sensor and mark the two mounting holes.
2. Drill two 3/16” holes in the center of each marked mounting hole. Insert a drywall anchor into each hole.
3. Secure the base to the drywall anchors using the #6 x 1 inch mounting screws provided.
4. Attach Cover by latching it to the top of the base, rotating the cover down and snapping it into place. 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.

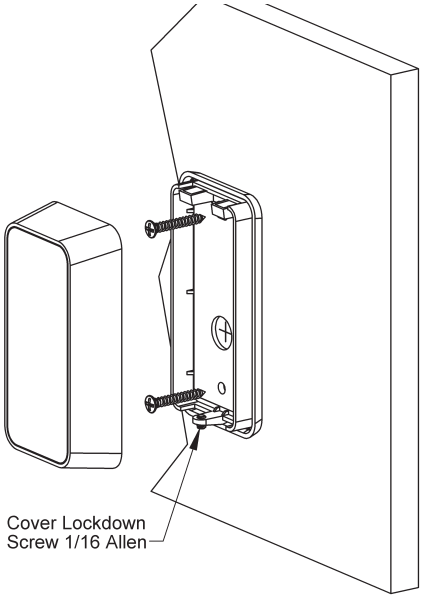


Fig. 2: BAPI-Stat “Quantum Slim” Mounting

Specifications

Wiring: One pair of 22 AWG wires

Mounting: Surface or drywall mount (screws provided)

Sensing Element:
Thermistor or RTD (See the “Sensors Section” of the BAPI catalog or the BAPI website for sensor specifications)

Environmental Operation Range:
Temperature: 32 to 122 °F (0 to 50 °C)
Humidity: 0 to 95%, non-condensing

Agency: RoHS, CE

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Termination

BAPI 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 high or low voltage AC power wiring. BAPI’s tests show that inaccurate signal levels are possible when AC power wiring is present in the same conduit as the sensor wires.

BAPI 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 will void the warranty.

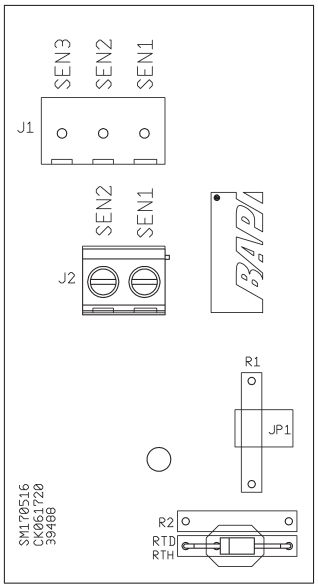

Fig. 3: BAPI-Stat “Quantum Slim” Circuit Board

Wiring - J2 Terminal Block

SEN 2 ....Temperature Sensor, Resistance Output - To analog input of controller

SEN 1 ....Temperature Sensor, Resistance Output - To analog input of controller

Wiring - J1 Terminal Block (only used for special order 3-wire sensors)

SEN 3 ....Temperature Sensor, Resistance Output - To analog input of controller (Common with Sen 2)

SEN 2 ....Temperature Sensor, Resistance Output - To analog input of controller (Common with Sen 3)

SEN 1 ....Temperature Sensor, Resistance Output - To analog input of controller

Diagnostics

Possible Problems:

Controller reports temperature that is higher or lower than actual temperature

Possible Solutions:

- Confirm the input is set up correctly in the front end software
- Check wiring for proper termination
- Determine if the sensor is exposed to an external source different from room environment such as conduit draft. If the sensor is exposed to conduit draft, fill the box with fiberglass or polyester fill or plug the conduit.
- Compare the sensor’s resistive output to the actual temperature in the room. Measure the temperature at the sensor’s location using an accurate standard. Disconnect the temperature sensor wires (SEN1 to SEN2) and measure the actual resistance across pins with an ohmmeter. Compare the sensor’s resistance to the appropriate temperature sensor table on the BAPI website. If the measured resistance varies by more than 5% from the temperature table, call BAPI technical support. To view the temperature table, go to the BAPI website (www.bapihvac.com), click on “Resource Library” and “Sensor Specs”, then click on the type of sensor you have.