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 AC power wiring of NEC class 1, NEC class 2, NEC class 3 or with wiring used to supply highly inductive loads such as motors, contactors and relays. BAPI's tests show that fluctuating and inaccurate signal levels are possible when AC power wiring is present in the same conduit as the signal lines. If you are experiencing any of these difficulties, please contact your BAPI representative

BAPI does not recommend wiring the sensor with power applied as accidental arcing may damage the product and will void the warranty

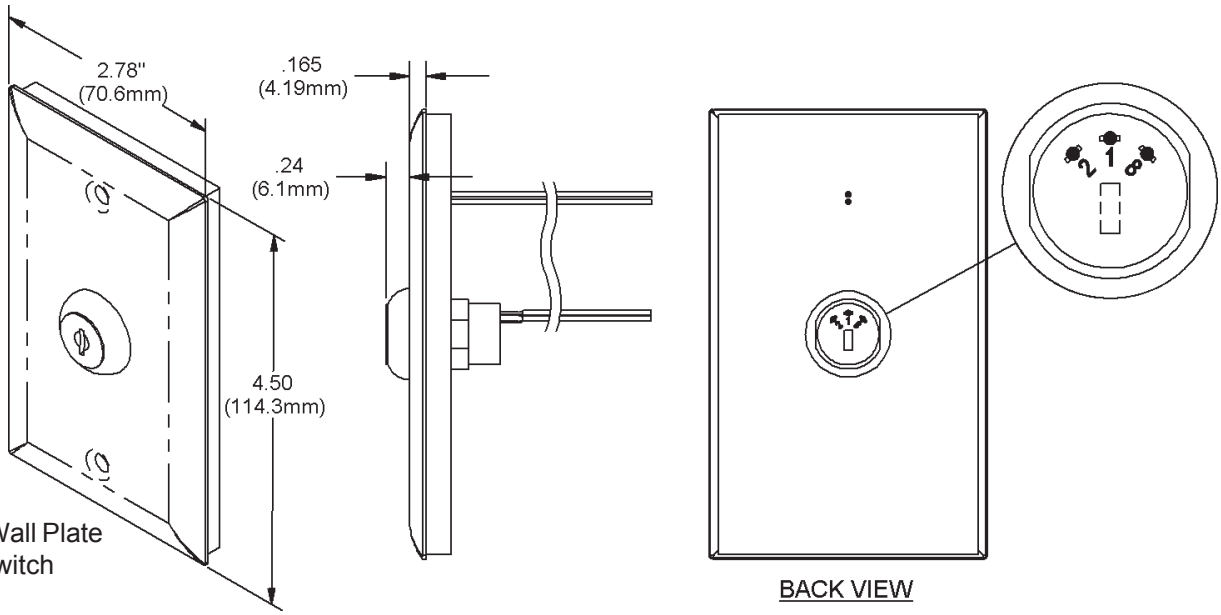


Figure 1: Wall Plate with Key-switch

Terminate the sensor wires to your controller wires using BAPI sealant filled connectors. The foam on the back of the wall plate seals the wall and insulates the plate from the wall.

Table 1: Temperature Sensor Lead Wire Colors

Thermistor			Platinum RTD	
			Single Point Two Wire	Single Point Three Wire
3K	Yellow/Black			
10K-2	Yellow/Yellow			
10K-3	Yellow/Red			
10K3(11K)	Yellow/Blue			
20K	White/White	100Ω	Red/Red	Red/Red/Black
100K	Yellow/White	1,000Ω	Orange/Orange	Orange/Orange/Black

The key switch has normally open and normally closed contacts. The switch closes with a 45° clockwise turn, the key will spring return to the open position. The switch is terminated with three white wires. The switch contacts are indicated on the back of the switch. The key switch is for NEC Class 2 circuits only, 4 amps maximum.

Table 2

Key Switch Contacts	
Common	Pin 1
Normally Open	Pin 2
Normally Closed	Pin 8

*Some items may not be CE compliant, call BAPI for additional information.

Specifications subject to change without notice.

Troubleshooting

Possible Problems:	**Possible Solutions:**
Controller reports higher than actual temperature	-Confirm that the input is set up correctly in the controller software. -Verify that the wires are not electrically shorted (thermistor) or open (RTD) -Check wiring for proper termination -Disconnect the controller wires from the sensor. Measure the temperature sensor's resistance with an Ohm-meter. Verify the sensor's output is correct (see note below). If the measured resistance is different from the temperature table by more than allowable, call BAPI technical support.
Controller reports lower than actual temperature	-Confirm that the input is set up correctly in the controller software. -Verify that the wires are not electrically open (thermistor) or shorted (RTD) -Check wiring for proper termination -Disconnect the controller wires from the sensor. Measure the temperature sensor's resistance with an Ohm-meter. Verify the sensor's output is correct (see note below). If the measured resistance is different from the temperature table by more than allowable, call BAPI technical support.
Key switch is not working correctly	-Disconnect the controller wires from the key switch. Without turning the key verify the resistance from pin 1 to pin 8 is 1Ω or less. While turning the key switch verify the resistance from pin 1 to pin2 is 1Ω or less. -Check wiring for proper termination

Compare the readings to the appropriate temperature table on the BAPI website:
http://www.bapihvac.com
Click on the sensor bar, then on the table needed.

Mounting

Mounting hardware is provided for both junction box and drywall installation.

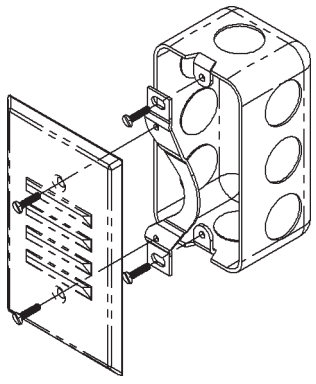
Junction Box

1. Pull the wire through the wall and out of the junction box, leaving about six inches free.
2. Terminate the unit according to the guidelines in **Termination** on page 1.
3. Secure the plate to the box using the #6-32 x 1/2 inch mounting screw provided or with Security screws which are sold separately. (Order BA/SP632x1 — Spanner Security Screws, 6-32x1" (box 50) and BA/SPBIT — Spanner Bit for Spanner Security Screws)

Drywall Mounting

1. Place the plate against the wall where you want to mount the sensor.
2. Using a pencil mark out the two mounting holes.
3. Drill two 3/16" holes in the center of each marked mounting hole. Insert a drywall anchor into each hole.
4. Cut hole between the two mounting holes that clears the apparatus mounted on the plate..
5. Pull the wire through the wall hole cut in step 4, leaving about six inches free.
6. Terminate the unit according to the guidelines in **Termination** on page 1.
7. Secure the plate to the drywall anchors using the #6 x 1 inch mounting screws provided.

Figure 2: Adapter Bracket Mounting



Note: Some wall plates require a mounting adapter-bracket for J-Box's as shown in the diagram.