

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

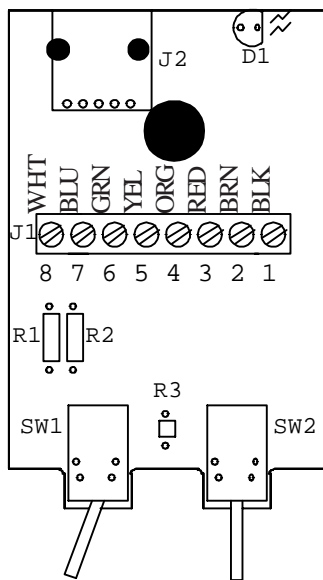
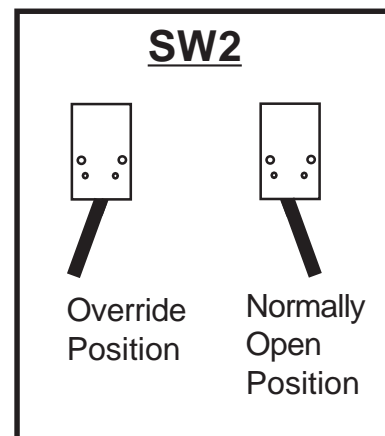
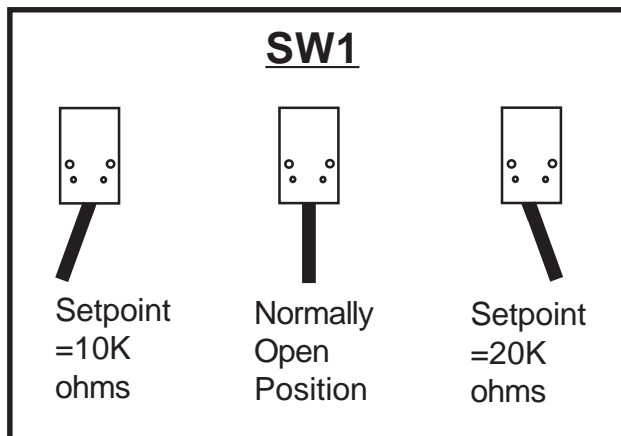


Fig 1

- | | |
|--------------------------------------|---|
| 8 - Comm jack pin 4 | [Connected from terminal block thru communications jack] |
| 7 - Comm jack pin 3
LED Anode (+) | [Connected from terminal block thru communications jack]
[Connected to +5VDC to power LED] |
| 6 - Comm jack pin 2 | [Connected from terminal block thru communications jack] |
| 5 - Comm jack pin 1 | [Connected from terminal block thru communications jack] |
| 4 - LED Cathode (-) | [To GND(common) of controller thru a 1K ohm resistor] |
| 3 - Setpoint &
Override | [Resistive Output] [To Analog Input of Controller] |
| 2 - Sensor | [Resistive Output] [To Analog Input of controller] |
| 1 - GND(Common) | [To GND or common of controller]
[Connected internally to Comm jack pin 5] |

Switch Positions



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

Specifications subject to change without notice.



Troubleshooting

Problems:

Controller reports higher than actual temperature

Controller reports lower than actual temperature

Setpoint is not working correctly

Override is not working correctly

Possible Solutions:

- Verify the input is set up correctly in the front end software
- Determine if the thermistor is physically shorted
- Check wiring for proper termination
- Confirm that the “Sensor” output is correct from Pin 2 to Pin 1

- Verify the input is set up correctly in the front end software
- Make sure thermistor is installed in sensor
- Check wiring for proper termination
- Verify the “Sensor” output from Pin 2 to Pin 1

- Check if “SW2” is installed
- Determine if the “Setpoint” output is 10K ohms from Pin 1 to Pin 3 when SW2 is in the correct position, see Page 1
- Determine if the “Setpoint” output is 20K ohms from Pin 1 to Pin 3 when SW2 is in the correct position, see Page 1
- Check wiring for proper termination

- Check if “SW1” is installed
- Determine if the output from Pin 1 to Pin 3 is less than 50 ohms when “SW1” is used
- Check wiring for proper termination

NOTE: Sensor output tables are available on our website, www.bapihvac.com, or from your BAPI Representative.

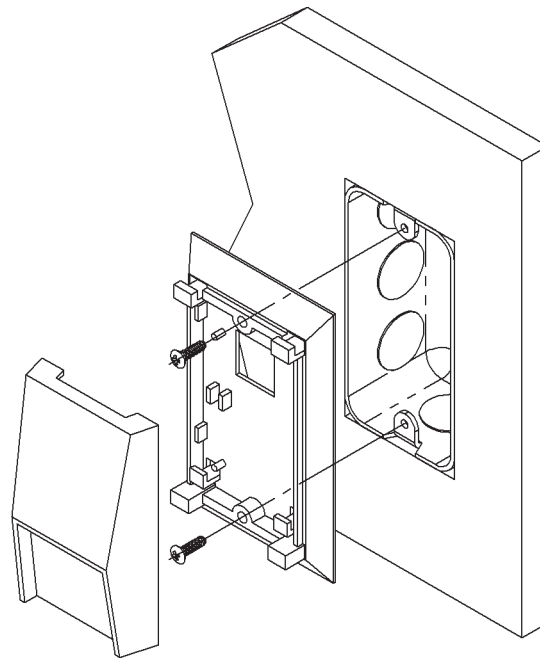
Mounting

Fig. 2

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

Junction Box

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. Secure the plate to the box using the #6-32 x 1/2 inch mounting screw provided.
4. Terminate the unit according to the guidelines in **Termination** on page 1.
5. Attach Cover by latching it to the top of the base, rotating the cover down and snapping it into place.
6. 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 **Termination** on page 1.
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 wall temperature and the temperature of the air within the wall cavity can cause erroneous readings. The mixing of room air and air from within the wall cavity can lead to condensation, erroneous readings and premature failure of the sensor.

To prevent these conditions, seal the conduit leading to the junction box and seal the hole in the drywall by using an adhesive backed, foam insulating pad (order part number BA/FOAMBACK).

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