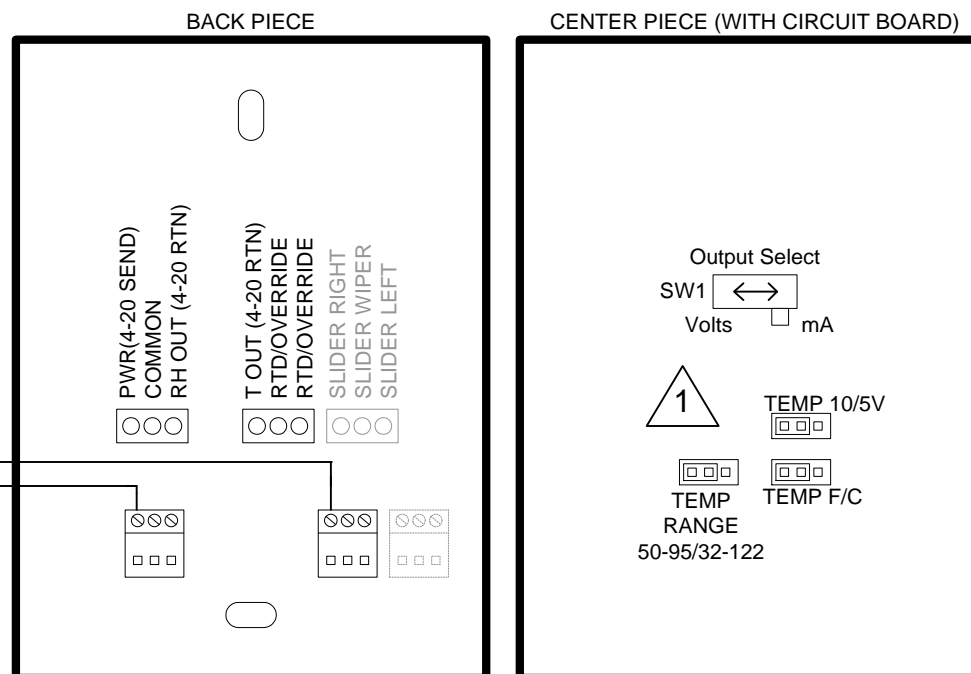
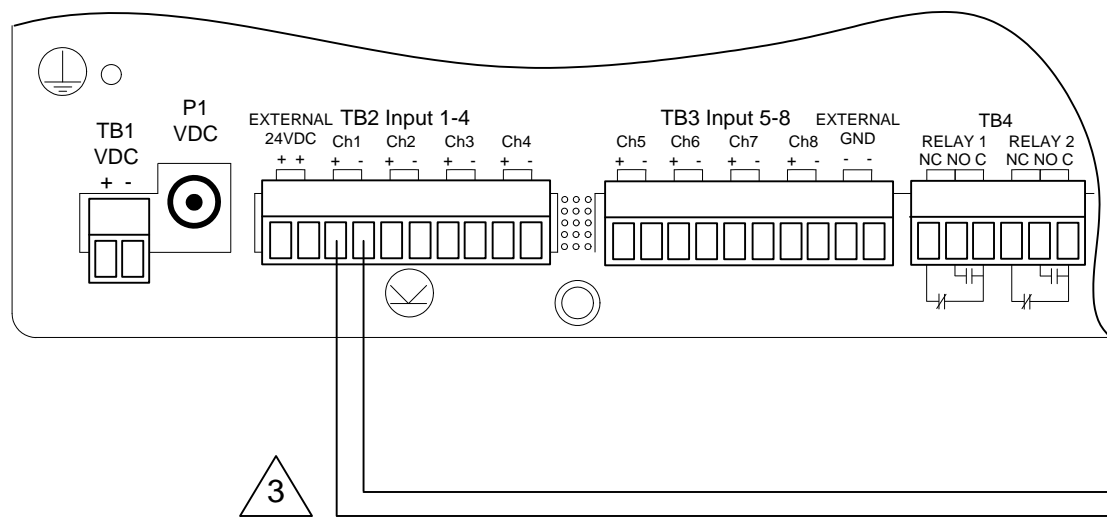


# T120 and T120D Setup



## SETUP

1. Set the Switch Position to mA. Set the Temperature range to 50-95 or 32-122. The Sensor is shipped from the Factory with the Switch in the Volts position and the temperature range is set for 50-95F. The switch position must be set to the mA position.
2. Configure the Falcon Input channel for "Analog 4-20mA" and enter the Gain and offset values. For the 50-95F range use Gain 11, Offset 39. For 32-122F range use Gain 22, Offset 11.
3. Wire the Sensor as Shown.
4. Verify the Falcon "Calc" value displays the correct room temperature. The temperature can also be viewed on the Falcon main page.

## TROUBLESHOOTING

5. Calculate the T120 Output current.

For 50-95F Range

For 32-122F Range

$$mA = \left( \frac{\text{Room Temp} - 50}{45} \right) \times 16 + 4 \quad mA = \left( \frac{\text{Room Temp} - 32}{90} \right) \times 16 + 4$$

Example if Room Temp is 70F

$$mA @ 70F = 11.11mA$$

$$mA @ 70F = 10.75mA$$

6. Measure the current flowing into the Falcon Ch- terminal with a current meter. Verify that it is close to the current calculated in step 5 (+/-1%).
7. If the measured current does not match the value calculated in step 5 then check wiring and check T120/T120D jumper and switch settings.
8. Compare the measured current to the current reading in the Falcon to see if they are the same.
9. If the Falcon current reading does not match the measured current reading, then check the wiring.
10. If the Falcon current reading matches the measured current and the Falcon "Calc" (calculated) value does not match the room temperature then the offset and gain values are wrong. Double check the Gain and Offset values.
11. If the temperature displayed in the Falcon is 1 or 2 degrees above or below the room temperature then adjust the offset by 1 or 2. Do not adjust the gain. Only tweak the offset once the previous troubleshooting steps have been performed.
12. If the Falcon still does not display the correct temperature contact RLE Technologies technical support at 970-484-6510.

### Setup for 50-95F Range

### Setup for 32-122F Range

