



Adjustment example: If each sensor heater ( $R_{-coil}$ ) is 15 ohms, then the current required to generate 0.2 Watts for each sensor is 0.115 Amps (Power = Current<sup>2</sup> × Resistance). Because the sensors are connected in series, the current of 0.115 Amps is the same for all sensors and will generate 0.2 Watts for each sensor. For 1 cm probes, use 0.1 Watts per sensor.

If the total resistance of the heaters, heating wire leads, and connecting wires (indicated in **red**) is 65 ohms, then the voltage measured at  $V_0$  (which is adjustable through the 1k ohm variable resistor) should be 7.5 Volts (Voltage = Resistance × Current) to provide a current of 0.115 Amps and thus a power of 0.2 Watts per sensor. Total power consumed by the external circuit then would be about 0.9 Watts.