

SPECIFICATIONS for Multi-Channel High Precision Thermometer

- 1) System to include a minimum of 10 channels of S/PRT, 4 wire inputs (plus ground) for resistance and temperature reading.
- 2) System to include (at a minimum) fixed internal resistors of 25 Ω and 100 Ω .
- 3) System to include a minimum of two external reference resistor inputs.
- 4) System to be able to achieve a resistance ratio ($\Omega_{UUT}/\Omega_{STD}$) of better than 0.1 ppm at 1.0.
- 5) System to have a resistance reading accuracy of better than 2m Ω from 100 to 2,000 Ω (~0.8 mADC current).
- 6) Temperature conversion capabilities of system to include: Callendar-Van Dusen, ITS-90, and PT-100.
- 7) Sensor current shall be adjustable between 0.01 mADC and 10 mADC.
- 8) System to include ISO/IEC 17025 Accredited Calibrations with Measurement Uncertainties IAW The Guide to Uncertainty in Measurement (GUM).