

CERTIFICATE OF CALIBRATION

Date Of Issue
14th September 2015

Certificate Number
140915/S2



0601

Certificate Issued By:



Electronic Temperature Instruments Ltd
Easting Close, Worthing
West Sussex BN14 8HQ England
Telephone +44 01903 202151
Facsimile +44 01903 202445
email: sales@etiltd.co.uk
Website: www.etiltd.co.uk

Page 1 of 2 pages

| Approved Signatory | Signature |
|--------------------|-----------|
| J.S. Carswell | |

Customer Name: SIGNATROL LIMITED

Address: UNIT E2

GREEN LANE BUSINESS PARK

TEWKESBURY

GLOUCESTERSHIRE

GL20 8SJ

Order Number: 44943

Ref Number: 481/47911

Date Received: 3rd September 2015

Date Calibrated: 9/10th September 2015

Ambient Temperature: 22 °C ± 2 °C

Ambient Humidity: <60 % rh

Temperature Scale: International Temperature Scale of 1990

Instrument Type: EUROTRON MICROCAL 1 SIMULATOR

Instrument Serial Number: 0049272

Procedure: The instrument was stabilised at ambient temperature, then calibrated by measuring its output on traceable reference equipment.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Results indicate performance of instrument at time of measurement, with no warranty as to specification, repeatability or long term stability.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

CERTIFICATE OF CALIBRATION

UKAS Accredited Calibration Laboratory No 0601

Certificate Number
140915/S2

Page 2 of 2 pages

Instrument Serial No 0049272

Results

| <u>Type "J" Output Temperature °C</u> | <u>Nominal mV</u> | <u>Measured mV</u> | <u>Equivalent Temperature °C</u> | <u>Uncertainty of Measurement</u> |
|---|---------------------|----------------------|--------------------------------------|---------------------------------------|
| - 100 | - 4.633 | - 4.631 3 | - 99.9 | ± 0.25 °C |
| 700.0 | 39.132 | 39.136 4 | 700.1 | ± 0.15 °C |
| <u>Type "K" Output Temperature °C</u> | <u>Nominal mV</u> | <u>Measured mV</u> | <u>Equivalent Temperature °C</u> | |
| - 100.0 | - 3.554 | - 3.551 8 | - 99.9 | ± 0.25 °C |
| 900.0 | 37.326 | 37.331 2 | 900.1 | ± 0.15 °C |
| <u>Type "T" Output Temperature °C</u> | <u>Nominal mV</u> | <u>Measured mV</u> | <u>Equivalent Temperature °C</u> | |
| - 100.0 | - 3.379 | - 3.371 8 | - 99.8 | ± 0.25 °C |
| 300.0 | 14.862 | - 14.873 4 | 300.2 | ± 0.15 °C |
| <u>Type "S" Output Temperature °C</u> | <u>Nominal mV</u> | <u>Measured mV</u> | <u>Equivalent Temperature °C</u> | |
| 800.0 | 7.345 | 7.343 2 | 799.8 | ± 1 °C |
| 1400.0 | 14.373 | 14.369 5 | 1399.7 | ± 1 °C |
| <u>Type "R" Output Temperature °C</u> | <u>Nominal mV</u> | <u>Measured mV</u> | <u>Equivalent Temperature °C</u> | |
| 800.0 | 7.950 | 7.948 4 | 799.9 | ± 1 °C |
| 1400.0 | 16.040 | 16.034 8 | 1399.6 | ± 1 °C |
| <u>Type "E" Output Temperature °C</u> | <u>Nominal mV</u> | <u>Measured mV</u> | <u>Equivalent Temperature °C</u> | |
| - 100.0 | - 5.237 | - 5.234 2 | - 99.9 | ± 0.25 °C |
| 650.0 | 49.116 | 49.119 8 | 650.1 | ± 0.15 °C |
| <u>PT100 Output Temperature °C</u> | <u>Nominal Ohms</u> | <u>Measured Ohms</u> | <u>Equivalent Temperature °C</u> | |
| 0.0 | 0.00 | 99.993 8 | - 0.02 | ± 0.025 °C |
| 600.0 | 313.71 | 313.590 | 599.63 | ± 0.18 °C |

End of Report