

# CERTIFICATE OF CALIBRATION

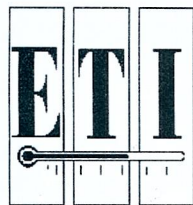
Date Of Issue  
3rd October 2011

Certificate Number  
031011/N1



0601

Certificate Issued By:



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Page 1 of 2 pages

Approved Signatory

Signature

J. Carswell

J. McKernan

D. Carter

Customer Name: SIGNATROL LIMITED

Address: 1st & 2nd FLOOR OFFICES  
105 CHURCH STREET  
TEWKESBURY  
GLOUCESTERSHIRE  
GL20 5AB

Order Number: 43856

Ref Number: 292/29072

Date Received: 27th September 2011

Date Calibrated: 28/29th September 2011

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 measurements to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

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UKAS Accredited Calibration Laboratory No 0601

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Page 2 of 2 pages

Instrument Serial No 49272

## 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>
-100.0	-4.633	-4.633 9	-100.0	± 0.25 °C
700.0	39.132	39.130 1	700.0	± 0.15 °C

<u>Type "K" Output Temperature °C</u>	<u>Nominal mV</u>	<u>Measured mV</u>	<u>Equivalent Temperature °C</u>	<u>Uncertainty of Measurement</u>
-100.0	-3.554	-3.555 1	-100	± 0.25 °C
900.0	37.326	37.325 7	900.0	± 0.15 °C

<u>Type "T" Output Temperature °C</u>	<u>Nominal mV</u>	<u>Measured mV</u>	<u>Equivalent Temperature °C</u>	<u>Uncertainty of Measurement</u>
-100.0	-3.379	-3.370 6	-99.8	± 0.25 °C
300.0	14.862	14.863 4	300.0	± 0.15 °C

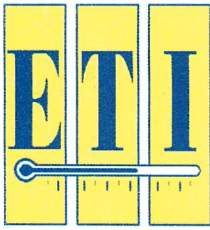
<u>Type "S" Output Temperature °C</u>	<u>Nominal mV</u>	<u>Measured mV</u>	<u>Equivalent Temperature °C</u>	<u>Uncertainty of Measurement</u>
800.0	7.345	7.342 9	799.9	± 1 °C
1400.0	14.373	14.371 1	1399.9	± 1 °C

<u>Type "R" Output Temperature °C</u>	<u>Nominal mV</u>	<u>Measured mV</u>	<u>Equivalent Temperature °C</u>	<u>Uncertainty of Measurement</u>
800.0	7.950	7.958 6	799.9	± 1 °C
1400.0	16.040	16.035 4	1399.7	± 1 °C

<u>Type "E" Output Temperature °C</u>	<u>Nominal mV</u>	<u>Measured mV</u>	<u>Equivalent Temperature °C</u>	<u>Uncertainty of Measurement</u>
-100.0	-5.237	-5.245 9	-100.1	± 0.25 °C
650.0	49.116	49.111 3	649.9	± 0.15 °C

<u>PT100 Output Temperature °C</u>	<u>Nominal Ohms</u>	<u>Measured Ohms</u>	<u>Equivalent Temperature °C</u>	<u>Uncertainty of Measurement</u>
0.0	0.00	100.040 2	0.10	± 0.025 °C
600.0	313.71	313.660 9	599.85	± 0.18 °C

End of Report



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CALIBRATION REPORT No: 031011/1  
Model : EUROTRON MICROCAL 1  
Standard: PREMA 6001  
Date: 3<sup>rd</sup> October 2011  
Ambient Temperature: 22 °C ± 2 °C

Serial No: 0049272  
Certificate No: CN153120  
Calibrated by: J. Carswell  
Ambient Humidity: < 60 %rh

Range	Test Value mV	Actual	Error	Test Limits mV
100mV	10.0	9.998	-0.002	0.006
100mV	50.0	50.007	0.007	0.006
1000mV	100.0	99.979	-0.021	0.006
1000mV	500.0	500.030	0.030	0.006
Range	Test Value mA	Actual	Error	Test Limits mA
20mA	4.0	3.9995	-0.0005	0.005
20mA	10.0	9.9984	-0.0014	0.005
20mA	20.0	19.9962	-0.0038	0.005

This is to certify that the above instrument has been calibrated against laboratory standards, which are traceable via International Agreement, to all major National Standards, including the NPL and NIST.

Certified by: