


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

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|  <p>UKAS CALIBRATION 0122</p> <p>Accredited to ISO/IEC 17025:2005</p> | <p>Trescal Ltd</p> <p>Issue No: 043 Issue date: 19 April 2012</p> | |
| | <p>Fulwood Road South Fulwood Industrial Estate Sutton-in-Ashfield Nottingham NG17 2JZ</p> | <p>Contact: Mr Paul McCarron Tel: +44 (0)1623 555110 Fax: +44 (0)1623 555022 E-Mail: calibration.nottingham@trescal.com Website: www.trescal.com</p> |
| <p>Calibration performed by the Organisations at the locations specified below</p> | | |

Locations covered by the organisation and their relevant activities

Laboratory locations:

| Location details | Activity | Location code |
|---|---|---------------|
| <p>Address Fulwood Road South Fulwood Industrial Estate Sutton-in-Ashfield Nottingham NG17 2JZ</p> <p>Local contact Mr P McCarron</p> | <p><u>DC & LF Electrical</u> <u>Pressure</u> <u>Temperature</u></p> | Lab |

Site activities performed away from the locations listed above:

| Location details | Activity | Location code |
|--|---|---------------|
| <p>Any Customer's premises</p> <p>The customer's site or premises must be suitable for the nature of the particular calibrations undertaken and will be the subject of contract review arrangements between the laboratory and the customer</p> | <p><u>DC & LF Electrical</u> <u>Pressure</u> <u>Temperature</u> <u>Humidity</u></p> | Site |



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Calibration performed by the Organisation at the locations specified

DETAIL OF ACCREDITATION

| Measured Quantity Instrument or Gauge | Range | Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$) | Remarks | Location Code |
|--|--|---|---|------------------------|
| DC RESISTANCE | | | | Lab |
| Spot values | 1 Ω 1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1 k Ω 1.9 k Ω 10 k Ω 19 k Ω 100 k Ω 190 k Ω 1 M Ω 1.9 M Ω 10 M Ω 19 M Ω 100 M Ω | 86 ppm 86 ppm 26 ppm 24 ppm 16 ppm 16 ppm 12 ppm 12 ppm 11 ppm 11 ppm 13 ppm 13 ppm 18 ppm 20 ppm 37 ppm 45 ppm 105 ppm | | |
| Current Carrying Resistors | 0 Ω to 33 m Ω 0 Ω to 20 m Ω 20 m Ω to 200 m Ω 200 m Ω to 1 Ω | 180 ppm + 3.3 n Ω 20 ppm + 10 n Ω 20 ppm + 100 n Ω 20 ppm + 1.0 $\mu\Omega$ | at 30 A Reduced current at 10 A is available at 10 A at larger at 10 A uncertainty | Lab |
| DC RESISTANCE | | | | |
| Measurement | 0 Ω to 12 Ω 12 Ω to 120 Ω 120 Ω to 1.2 k Ω 1.2 k Ω to 12 k Ω 12 k Ω to 120 k Ω 120 k Ω to 1.2 M Ω 1.2 M Ω to 12 M Ω 12 M Ω to 120 M Ω 120 M Ω to 1.2 G Ω | 45 ppm + 0.10 m Ω 30 ppm + 1.0 m Ω 22 ppm + 1.0 m Ω 21 ppm + 10 m Ω 23 ppm + 100 m Ω 35 ppm + 3.0 Ω 80 ppm + 140 Ω 600 ppm + 2.1 k Ω 650 ppm + 160 k Ω | | |
| DC VOLTAGE | | | | |
| Generation | 0 V to 220 mV 220 mV to 2.2 V 2.2 V to 11 V 11 V to 22 V 22 V to 220 V 220 V to 1100 V | 7.5 ppm + 0.65 μ V 6.5 ppm + 1.0 μ V 6.5 ppm + 3.5 μ V 6.5 ppm + 6.5 μ V 7.0 ppm + 80 μ V 8.5 ppm + 470 μ V | | Lab Lab |



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| Measured Quantity Instrument or Gauge | Range | Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$) | Remarks | Location Code |
|--|--|--|--|------------------|
| DC CURRENT | 0 A to 220 μ A 220 μ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A 2 A to 11 A 10 A to 30 A 10 A to 1500 A | 47 ppm + 8.0 η A 47 ppm + 8.0 η A 47 ppm + 80 η A 55 ppm + 800 η A 75 ppm + 24 μ A 280 ppm + 380 μ A 180 ppm 0.20 % | For the calibration of clamp-on ammeters only | Lab |
| | AC VOLTAGE Generation | | | Lab |
| | 0.1 mV to 2.2 mV 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz | 850 ppm + 4.0 μ V 750 ppm + 4.0 μ V 720 ppm + 4.0 μ V 800 ppm + 4.0 μ V 0.10 % + 6.5 μ V 0.12 % + 12 μ V 0.17 % + 25 μ V 0.33 % + 25 μ V | | |
| | 2.2 mV to 22 mV 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz | 480 ppm + 5.0 μ V 220 ppm + 5.0 μ V 140 ppm + 5.0 μ V 340 ppm + 5.0 μ V 750 ppm + 6.5 μ V 0.11 % + 12 μ V 0.15 % + 25 μ V 0.30 % + 25 μ V | | |
| | 22 mV to 220 mV 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz | 470 ppm + 13 μ V 190 ppm + 8.0 μ V 105 ppm + 8.0 μ V 290 ppm + 8.0 μ V 700 ppm + 25 μ V 860 ppm + 25 μ V 0.14 % + 32 μ V | | |
| | 220 mV to 2.2 V 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz | 470 ppm + 80 μ V 150 ppm + 25 μ V 75 ppm + 6.0 μ V 115 ppm + 16 μ V 220 ppm + 65 μ V 380 ppm + 115 μ V 950 ppm + 320 μ V 0.19 % + 800 μ V | | |



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|--|--|---|---------|------------------|-----|
| AC VOLTAGE (cont'd) Generation (cont'd) | 2.2 V to 22 V 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz 22 V to 220 V 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 300 kHz to 50 kHz 50 kHz to 100 kHz 220 V to 1100 V 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 30 kHz 220 V to 750 V 30 kHz to 50 kHz 50 kHz to 100 kHz | 470 ppm + 800 μ V 150 ppm + 240 μ V 75 ppm + 55 μ V 120 ppm + 160 μ V 220 ppm + 320 μ V 470 ppm + 1.3 mV 0.11 % + 4.0 mV 0.24 % + 7.0mV 470 ppm + 8.0 mV 150 ppm + 2.5 mV 80 ppm + 800 μ V 200 ppm + 3.1 mV 470 ppm + 8.0 mV 80 ppm + 3.1 mV 140 ppm + 5.0 mV 470 ppm + 8.5 mV 470 ppm + 8.5 mV 0.18 % + 35 mV | | | Lab |
| AC VOLTAGE Measurement | 10 μ V to 12 mV 10 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 120 mV to 1.2 V 10 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 1 MHz 1 MHz to 2 MHz | 800 ppm + 9.0 μ V 300 ppm + 8.0 μ V 400 ppm + 8.0 μ V 0.13 % + 8.0 μ V 0.60 % + 11 μ V 4.7 % + 21 μ V 800 ppm + 140 μ V 140 ppm + 30 μ V 200 ppm + 30 μ V 400 ppm + 40 μ V 0.10 % + 110 μ V 0.36 % + 225 μ V 1.2 % + 1.1 mV 1.8 % + 1.2 mV | | | Lab |



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|---|---|--|---------|------------------|-----|
| AC VOLTAGE (cont'd) Measurement (cont'd) | 1.2 V to 12 V 10 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 1 MHz 1 MHz to 2 MHz 12 V to 120 V 10 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 120 V to 700 V 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 30 kHz At 700 V 30 kHz to 50 kHz 50 kHz to 100 kHz 220 V to 1.1 kV 40 Hz to 10 kHz 10 kHz to 30 kHz 30 kHz to 100 kHz | 750 ppm + 1.3 mV 140 ppm + 300 μ V 200 ppm + 300 μ V 400 ppm + 400 μ V 0.10 % + 600 μ V 0.36 % + 25 mV 1.25 % + 12 mV 1.8 % + 12 mV 750 ppm + 14 mV 275 ppm + 3.5 mV 275 ppm + 3.5 mV 510 ppm + 6 mV 0.16 % + 13 mV 500 ppm + 20 mV 750 ppm + 20 mV 0.16 % + 25 mV 0.20 % + 25 mV 0.45 % + 25 mV 210 ppm + 25 mV 760 ppm + 60 mV 0.65 % + 250 mV | | | Lab |
| AC CURRENT Generation | 100 nA to 220 μ A 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz 220 μ A to 2.2 mA 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz 2.2 mA to 22 mA 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz 22 mA to 220 mA 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz | 130 ppm + 16 nA 550 ppm + 40 nA 0.14 % + 870 nA 130 ppm + 31 nA 550 ppm + 400 nA 0.14 % + 800 nA 140 ppm + 410 nA 550 ppm + 4.0 μ A 0.14 % + 8.0 μ A 150 ppm + 3.1 μ A 550 ppm + 40 μ A 0.14 % + 80 μ A | | | Lab |



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|--|--|---|---|------------------|
| AC CURRENT (cont'd) Generation (cont'd) | 220 mA to 2.2 A 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz | 590 ppm + 31 μ A 670 ppm + 80 μ A 0.80 % + 120 μ A | | Lab |
| | 2.2 A to 11 A 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz | 370 ppm + 140 μ A 750 ppm + 300 μ A 0.28 % + 600 μ A | | |
| AC CURRENT Measurement | 10 A to 1500 A 50 Hz | 1.0 % | For the calibration of clamp-on ammeters only | |
| | 100 nA to 120 μ A 40 Hz to 45 Hz 45 Hz to 100 Hz 100 Hz to 5 kHz | 0.18 % + 40 nA 0.08 % + 40 nA 0.11 % + 70 nA | | |
| | 120 μ A to 1.2 mA 25 Hz to 45 Hz 45 Hz to 100 Hz 100 Hz to 5 kHz 5 kHz to 10 kHz | 0.18 % + 300 nA 0.08 % + 300 nA 0.09 % + 700 nA 0.25 % + 1.25 μ A | | |
| | 1.2 mA to 12 mA 25 Hz to 45 Hz 45 Hz to 100 Hz 100 Hz to 5 kHz 5 kHz to 10 kHz | 0.18 % + 3.0 μ A 0.08 % + 3.0 μ A 0.090 % + 37 μ A 0.25 % + 13 μ A | | |
| | 12 mA to 120 mA 25 Hz to 45 Hz 45 Hz to 100 Hz 100 Hz to 5 kHz 5 kHz to 10 kHz | 0.18 % + 30 μ A 0.080 % + 30 μ A 0.090 % + 70 μ A 0.25 % + 130 μ A | | |
| | 120 mA to 1.050 A 25 Hz to 45 Hz 45 Hz to 100 Hz 100 Hz to 5 kHz 5 kHz to 10 kHz | 0.19 % + 250 μ A 0.11 % + 250 μ A 0.16 % + 550 μ A 1.3 % + 1.0 mA | | |
| FREQUENCY | 0 Hz to 1.2 GHz | 1 in 10^9 + 20 nHz | Elapsed time of repetitive waveforms can be reported as 1/f | Lab |



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| INDUCTANCE Measurement | 0 H to 200 μ H 1000 Hz | 0.046 % + 0.050 μ H | | Lab |
| | 0.2 mH to 2 mH 1000 Hz | 0.023 % + 0.50 μ H | | |
| | 2 mH to 20 mH 1000 Hz | 0.023 % + 50 μ H | | |
| | 20 mH to 200 mH 1000 Hz | 0.031 % + 5.0 μ H | | |
| | 0.2 H to 2 H 1000 Hz | 0.031 % + 0.50 mH | | |
| | 2 H to 20 H 1000 Hz | 0.12 % + 5.0 mH | | |
| INDUCTANCE Generation Specific Values | 1 μ H 1000 Hz and 1592 Hz | 0.60 % | | Lab |
| | 10 μ H 1000 Hz and 1592 Hz | 0.14 % | | |
| | 100 μ H 1000 Hz | 0.050 % 0.070 % | | |
| | 1 mH and 10 mH 1000 Hz | 0.025 % 0.060 % | | |
| | 100 mH and 1 H 1000 Hz | 0.035 % 0.060 % | | |
| CAPACITANCE Measurement | 0 F to 200 pF 1000 Hz | 0.015 % + 0.050 pF | | Lab |
| | 0.2 nF to 2 nF 1000 Hz | 0.023 % + 0.50 pF | | |
| | 2 nF to 20 nF 1000 Hz | 0.015 % + 5.0 pF | | |



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| CAPACITANCE (cont'd) Measurement (cont'd) | 20 nF to 200 nF 1000 Hz | 0.015 % + 50 pF | | Lab |
| | 0.2 μ F to 2 μ F 1000 Hz | 0.015 % + 0.50 nF | | |
| | 2 μ F to 20 μ F 1000 Hz | 0.080 % + 5.0 nF | | |
| CAPACITANCE Generation | | | | Lab |
| 3-terminal | 1 pF and 10 pF 1000 Hz 1592 Hz | 0.020 % 0.025 % | | |
| | 100 pF 1000 Hz 1592 Hz | 0.15 % 0.15 % | | |
| | 1000 pF 1000 Hz 1592 Hz | 0.025 % 0.030 % | | |
| 2-terminal | 10 nF, 100 nF and 1 μ F 1000 Hz 1592 Hz | 0.020 % 0.025 % | | |
| | 2 nF to 10 nF 1000 Hz | 0.010 % + 1.0 pF | | |
| | 100 nF and 1 μ F 1000 Hz | 0.011 % | | |
| | 200 nF to 1000 nF 1000 Hz 10 μ F 1000 Hz | 0.010 % 0.080 % | | |
| | 100 μ F 1000 Hz | 0.11 % | | |



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|---|--|---|---|------------------|
| TEMPERATURE SIMULATION | | | | |
| Temperature simulators, Calibration by electrical simulation | | | | Lab |
| Base metal | - 270 °C to + 1370 °C | 0.22 °C | Including cold junction compensation | |
| Noble metal | 0 °C to + 1800 °C | 0.22 °C | including cold junction compensation | |
| Temperature indicators, Calibration by electrical simulation | | | | Lab |
| Base metal | - 270 °C to + 1370 °C | 0.22 °C | Including cold junction compensation | |
| Noble metal | 0 °C to 1760 °C | 0.22 °C | including cold junction compensation | |
| Resistance thermometer (Pt 100) | - 200 °C to + 800 °C | 0.10 °C | | Lab |
| PRESSURE | | | | |
| <u>Gas Pressure (Gauge)</u> | | | | |
| Calibration of pressure indicating instruments and gauges. "Pressure equivalent" calibration of Dead Weight Testers (pressure balance supplied with an associated mass set). | - 100 kPa to - 5 kPa - 5 kPa to - 3.5 kPa - 3.5 kPa to - 1.2 kPa - 1.2 kPa to 1.2 kPa 1.2 kPa to 3.5 kPa 3.5 kPa to 5 kPa 5 kPa to 700 kPa 700 kPa to 7 MPa | 0.0090 % 0.010 % 0.013 % + 0.20 Pa 4.7 Pa 0.012 % + 0.20 Pa 0.0085 % 0.0070 % 0.0080 % | Calibrations of devices with an electrical output may be undertaken | Lab |
| Pressure relief valves and switches | 0 Pa to 69 kPa 69 kPa to 350 kPa 350 kPa to 700 kPa 700 kPa to 1 MPa 1 MPa to 2 MPa 2 MPa to 7 MPa | 10 Pa 35 Pa 78 Pa 100 Pa 200 Pa 700 Pa | | |
| <u>Gas Pressure (Absolute)</u> | | | | |
| Calibration of pressure indicating instruments and gauges | 2.5 kPa to 80 kPa 80 kPa to 115 kPa 115 kPa to 800 kPa 800 kPa to 7.1 MPa | 0.0090 % + 11 Pa 0.0050 % + 10 Pa 0.0070 % + 11 Pa 0.0080 % + 11 Pa | | Lab |



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|---|---|---|--|------------------|
| PRESSURE (cont'd) | | | | |
| <u>Hydraulic Pressure (Gauge)</u> | | | | |
| Calibration of pressure indicating instruments and gauges. "Pressure equivalent" calibration of Dead Weight Testers (pressure balance supplied with an associated mass set). | 600 kPa to 6 MPa 6 MPa to 120 MPa | 0.010 % 0.012 % | | Lab |
| Pressure relief valves and switches | 0 Pa to 7 MPa | 700 Pa | | Lab |
| <u>Hydraulic Pressure (Absolute)</u> | | | | |
| Calibration of pressure indicating instruments and gauges. | 700 kPa to 6.1 MPa 6.1 MPa to 120.1 MPa | 0.010 % + 11 Pa 0.012 % + 11 Pa | | Lab |
| TEMPERATURE | | | | |
| Liquid in glass thermometers | - 20 °C to 250 °C | 0.066 °C | | Lab |
| Temperature indicators and recorders with temperature sensor(s) | - 20 °C to 250 °C | 0.066 °C | | Lab |
| Thermocouples | - 20 °C to + 250 °C | 0.21 °C | (Base metal types) Compensating and Extension cables | Lab |
| Temperature controlled chambers, autoclaves, media preparators and ovens, with associated indicators and recorders | - 20 °C to + 250 °C 20 °C to 1000 °C | 0.34 °C 6.7 °C | | Lab |
| Block Calibrators | - 20 °C to + 250 °C 250 °C to 400 °C | 0.076 °C 0.87 °C | | Lab |
| Radiation thermometers (pyrometers) | 20 °C to 150 °C 150 °C to 200 °C 200 °C to 250 °C 250 °C to 300 °C 300 °C to 350 °C 350 °C to 400 °C 400 °C to 450 °C 450 °C to 500 °C 500 °C to 550 °C | 1.0 °C 1.2 °C 1.6 °C 1.9 °C 2.2 °C 2.8 °C 3.6 °C 4.3 °C 5.0 °C | + 0.30 % Reading | Lab |



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|--|---|--|---------|------------------|
| On site capability | | | | |
| DC RESISTANCE | | | | Site |
| Measurement | 0 Ω to 12 Ω 12 Ω to 120 120 Ω to 1.2 k Ω 1.2 k Ω to 12 k Ω 12 k Ω to 120 k Ω 120 k Ω to 1.2 M Ω 1.2 M Ω to 12 M Ω 12 M Ω to 120 M Ω 120 M Ω to 1.2 G Ω 1 G Ω | 45 ppm + 0.10 m Ω 30 ppm + 1.0 m Ω 22 ppm + 1.0 m Ω 21 ppm + 10 m Ω 23 ppm + 100 m Ω 35 ppm + 3.0 Ω 80 ppm + 140 Ω 600 ppm + 2.1 k Ω 0.65 % + 160 k Ω 0.46 % | | |
| DC CURRENT | | | | Site |
| | 0 A to 10 μ A 10 μ A 200 μ A 200 μ A to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A | 4.0 nA 410 ppm 300 ppm 350 ppm 370 ppm 570 ppm | | |
| DC VOLTAGE | | | | Site |
| Measurement | 0 V to 120 mV 120 mV to 1.2 V 1.2 V to 12 V 12 V to 120 V 120 V to 1050 V | 12.5 ppm + 1.8 μ V 11.5 ppm + 2 μ V 11.5 ppm + 6.5 μ V 13 ppm + 130 μ V 19 ppm + 750 μ V | | |
| AC VOLTAGE | | | | Site |
| | 20 mV to 200 mV 40 Hz to 10 kHz 10 kHz to 50 kHz 50 kHz to 100 kHz | 0.019 % 0.63 % 5.8 % | | |
| | 200 mV to 2 V 40 Hz to 10 kHz 10 kHz to 50 kHz 50 kHz to 100 kHz | 0.090 % 0.24 % 1.3 % | | |
| | 2 V to 20 V 40 Hz to 10 kHz 10 kHz to 50 kHz 50 kHz to 100 kHz | 0.10 % 0.35 % 0.65 % | | |
| | 20 V to 200 V 40 Hz to 10 kHz 10 kHz to 50 kHz 50 kHz to 100 kHz | 0.080 % 0.24 % 0.66 % | | |



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| AC VOLTAGE (cont'd) | 200 V to 700 V 40 Hz to 10 kHz 10 kHz to 50 kHz 50 kHz to 100 kHz | 0.13 % 0.31 % 1.2 % | | Site |
| AC CURRENT | 40 Hz to 1 kHz 20 μ A to 200 μ A 200 μ A to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2A | 0.21 % 0.18 % 0.17 % 0.18 % 0.19 % | | Site |
| TIME INTERVAL | 0 s to 8 hrs | 2.0 ms | | Site |
| TEMPERATURE SIMULATION | | | | Site |
| Temperature simulators, Calibration by electrical simulation | | | | Site |
| Base metal | - 50 °C to + 1370 °C | 0.47 °C | Including cold junction compensation | |
| Noble metal | 0 °C to + 1760 °C | 0.47 °C | including cold junction compensation | |
| Resistance thermometer (Pt 100) | - 200 °C to + 800 °C | 0.15 °C | | |
| Temperature indicators, Calibration by electrical simulation | | | | Site |
| Base metal | - 50 °C to + 1370 °C | 0.47 °C | Including cold junction compensation | |
| Noble metal | 0 °C to 1760 °C | 0.47 °C | including cold junction compensation | |
| Resistance thermometer (Pt 100) | - 200 °C to + 800 °C | 0.10 °C | | Site |
| PRESSURE | | | | |
| <u>Gas Pressure (gauge)</u> | | | | |
| Calibration of pressure indicating instruments and gauges | - 100 kPa to 0 Pa 0 Pa to 40 kPa 40 kPa to 350 kPa 350 kPa to 400 kPa 400 kPa to 2 MPa 2 MPa to 2.8 MPa | 230 Pa 100 Pa 180 Pa 400 Pa 1.0 kPa 1.3 kPa | Calibrations of devices with an electrical output may be undertaken | Site |



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| <p>PRESSURE (cont'd)</p> <p><u>Gas Pressure (absolute)</u></p> <p>Calibration of pressure indicating instruments and gauges</p> | <p>1.5 kPa to 100 kPa 100 kPa to 140 kPa 140 kPa to 450 kPa 450 kPa to 500 kPa 500 kPa to 2.1 MPa 2.1 MPa to 2.9 MPa</p> | <p>250 Pa 0.14 kPa 0.21 kPa 0.41 kPa 1.0 kPa 1.3 kPa</p> | | Site |
| <p><u>Hydraulic Pressure (gauge)</u></p> <p>Calibration of pressure indicating instruments and gauges</p> | <p>0 Pa to 41.4 MPa</p> | <p>31 kPa</p> | | Site |
| <p><u>Hydraulic Pressure (absolute)</u></p> <p>Calibration of pressure indicating instruments and gauges</p> | <p>100 kPa to 41.5 MPa</p> | <p>31 kPa</p> | | Site |
| <p>TEMPERATURE</p> <p>Temperature controlled chambers, autoclaves, media preparators and ovens, with associated indicators and recorders</p> | <p>- 20 °C to + 250 °C 20 °C to 1000 °C</p> | <p>0.34 °C 6.7 °C</p> | | Site |
| <p>Humidity controlled chambers (inclusive of associated indicators, controllers and recorders, all with sensors within the specified parameters and ranges)</p> | <p>35 %rh to 95 %rh 20 °C to 70 °C</p> | <p>5.7 %rh</p> | | Site |
| <p>Block Calibrators</p> | <p>-20 °C to 250 °C 250 °C to 1000 °C</p> | <p>0.91 6.7 °C</p> | | Site |
| <p>Temperature indicators and recorders with temperature sensors</p> | <p>- 20 °C to 200 °C</p> | <p>0.43 °C</p> | | Site |
| <p>Thermocouples</p> | <p>100 °C to 1000 °C 1000 °C to 1300 °C</p> | <p>2.5 °C 3.5 °C</p> | <p>Utilising Lincoln Furnaces only</p> | Site |



0122
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Trescal Ltd
Issue No: 043 Issue date: 19 April 2012

Calibration performed by the Organisation at the locations specified

| Measured Quantity Instrument or Gauge | Range | Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$) | Remarks | Location Code |
|--|---|---|------------------|------------------|
| Radiation thermometers (pyrometers) | 20 °C to 150 °C 150 °C to 200 °C 200 °C to 250 °C 250 °C to 300 °C 300 °C to 350 °C 350 °C to 400 °C 400 °C to 450 °C 450 °C to 500 °C 500 °C to 550 °C | 1.0 °C 1.2 °C 1.6 °C 1.9 °C 2.2 °C 2.8 °C 3.6 °C 4.3 °C 5.0 °C | + 0.30 % Reading | Site |
| END | | | | |