

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>0811</p> <p>Accredited to ISO/IEC 17025:2005</p>	<h3>Acute Sales Limited</h3> <p>Issue No: 004 Issue date: 31 August 2011</p>	
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<p>Calibration performed at the above address only</p>		

DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks
DC RESISTANCE			
Generation	1 Ω to 330 Ω 330 Ω to 3.3 k Ω 3.3 k Ω to 33 k Ω 33 k Ω to 330 k Ω 330 k Ω to 3.3 M Ω 3.3 M Ω to 33 M Ω	110 ppm + 12 m Ω 71 ppm + 46 m Ω 74 ppm + 0.47 Ω 96 ppm + 4.6 Ω 120 ppm + 42 Ω 780 ppm + 0.43 k Ω	Four wire connections used Up to 10 k Ω , 2 wire above.
Measurement	0 Ω to 100 Ω 0.1 k Ω to 1 k Ω 1 k Ω to 10 k Ω 10 k Ω to 100 k Ω 0.1 M Ω to 1 M Ω 1 M Ω to 10 M Ω	9.2 m Ω 34 m Ω 0.55 Ω 7.0 Ω 69 Ω 4.2 k Ω	
DC VOLTAGE			
Generation	1 mV to 330 mV 330 mV to 3.3 V 3.3 V to 33 V 33 V to 330 V 330 V to 1020 V	47 ppm + 2.9 μ V 39 ppm + 4.2 μ V 40 ppm + 38 μ V 44 ppm + 0.39 mV 44 ppm + 1.3 mV	
Measurement	0 mV to 100 mV 0.1 V to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	5.8 μ V 21 μ V 0.20 mV 1.7 mV 35 mV	
DC CURRENT			
Generation	100 μ A to 3.3 mA 3.3 mA to 33 mA 33 mA to 330 mA 330 mA to 2.2 A 2.2 A to 11 A	110 ppm + 38 nA 120 ppm + 0.20 μ A 98 ppm + 2.7 μ A 940 ppm + 34 μ A 820 ppm + 0.26 mA	
Measurement	0 μ A to 100 μ A 0.1 mA to 1 mA 1 mA to 10 mA 10 mA to 100 mA 0.1 A to 1 A 1 A to 10 A	23 nA 73 nA 3.3 μ A 23 μ A 0.20 mA 3.2 mA	



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AC VOLTAGE			
Generation	At 1.0 kHz: 1.0 mV to 33 mV	0.13 % + 16 μ V	
	50 Hz to 10 kHz: 33 mV to 330 mV 0.33 V to 3.3 V	0.051 % + 16 μ V 0.034 % + 46 μ V	
	10 kHz to 20 kHz: 0.33 V to 3.3 V	0.68 % + 46 μ V	
	50 Hz to 1.0 kHz: 3.3 V to 33 V 33 V to 330 V 330 V to 700 V	0.045 % + 0.47 mV 0.069 % + 5.2 mV 0.064 % + 62 mV	
Measurement	At 60 Hz: 10 mV to 100 mV 0.1 V to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	78 μ V 0.61 mV 6.8 mV 83 mV 0.84 V	
AC CURRENT			
Generation	50 Hz to 60 Hz: 29 μ A to 330 μ A 0.33 mA to 3.3 mA	0.18 % + 0.20 μ A 0.17 % + 0.24 μ A	
	50 Hz to 1.0 kHz: 3.3 mA to 33 mA	0.31 % + 2.4 μ A	
	50 Hz to 60 Hz: 33 mA to 330 mA 0.33 A to 2.2 A 2.2 to 11 A	0.18 % + 24 μ A 0.081 % + 0.24 mA 0.070 % + 1.6 mA	
Measurement	At 60 Hz: 10 μ A to 100 μ A 0.1 mA to 1 mA 1 mA to 10 mA 10 mA to 100 mA 0.1 A to 1 A 1 A to 10 A	0.19 μ A 0.56 μ A 8.4 μ A 84 μ A 0.54 mA 10 mA	
FREQUENCY			
Generation	120 Hz to 1.2 kHz 1.2 kHz to 12 kHz 12 kHz to 120 kHz	23 ppm + 58 mHz 23 ppm + 0.58 Hz 23 ppm + 5.8 Hz	



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Electrical simulation and Measurement of thermocouples E J K N R S T	- 250 °C to + 1000 °C - 210 °C to + 1200 °C - 200 °C to + 1372 °C - 200 °C to + 1300 °C 0 °C to + 1767 °C 0 °C to + 1767 °C - 250 °C to + 400 °C	0.47 °C 0.34 °C 0.52 °C 0.41 °C 0.53 °C 0.46 °C 0.70 °C	With or without automatic Cold junction correction
PRESSURE			
<u>Gas pressure (Gauge)</u>			
Calibration of pressure indicating instruments and gauges	- 100 kPa to 0 0 to 20 kPa 20 to 70 kPa 70 kPa to 270 kPa 270 kPa to 3.5 MPa 3.5 MPa to 7 MPa	0.011 % + 7.7 Pa 0.014 % + 1.7 Pa 0.011 % + 7.7 Pa 15 Pa 0.014 % 0.19 % + 550 Pa	Calibration of pressure devices with an electrical output can be undertaken
<u>Gas pressure (Absolute)</u>			
Calibration of pressure indicating instruments and gauges	80 kPa to 115 kPa	0.010 % + 9.1 Pa	
<u>Hydraulic pressure (gauge)</u>			
Calibration of pressure indicating instruments and gauges	0 to 70 MPa	0.032 % + 14 kPa	
END			