

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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



0693

Accredited to
ISO/IEC 17025:2005

Aerospace Metrology & Electromechanical Calibration Ltd

Issue No: 012 Issue date: 09 April 2008

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Calibration performed at the above address only

DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Best Measurement Capability Expressed as an Expanded Uncertainty ($k=2$)	Remarks
DC VOLTAGE			
Generation	0 to 200 μ V 200 μ V to 2 mV 2 mV to 20 mV 20 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 20 V to 1200 V	1.6 μ V 1.6 μ V 1.6 μ V 4.0 ppm + 1.5 μ V 3.9 ppm + 1.0 μ V 3.7 ppm + 12 μ V 4.5 ppm + 120 μ V 4.7 ppm + 0.58 mV	
Measurement	0 to 30 mV 30 mV to 100 mV 100 mV to 300 mV 300 mV to 1 V 1 V to 3 V 3 V to 10 V 10 V to 30 V 30 V to 100 V 100 V to 300 V 300 V to 1 kV 1 kV to 3 kV 3 kV to 10 kV	36 ppm + 1.7 μ V 36 ppm + 2.8 μ V 36 ppm + 9.7 μ V 22 ppm + 12 μ V 22 ppm + 73 μ V 22 ppm + 98 μ V 36 ppm + 0.83 mV 36 ppm + 1.7 mV 40 ppm + 10 mV 40 ppm + 18 mV 420 ppm + 6.7 V 420 ppm + 17 V	
DC RESISTANCE			
Generation	1 Ω 10 Ω 100 Ω 1 k Ω 10 k Ω 100 k Ω 1 M Ω 10 M Ω	4.2 ppm 1.0 ppm 1.6 ppm 1.2 ppm 1.4 ppm 5.7 ppm 15 ppm 30 ppm	



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Measured Quantity Instrument or Gauge	Range	Best Measurement Capability Expressed as an Expanded Uncertainty ($k=2$)	Remarks
DC RESISTANCE (cont'd)			
Measurement	0 to 100 mΩ 100 mΩ to 300 mΩ 300 mΩ to 1 Ω 1 Ω to 3 Ω 3 Ω to 10 Ω 10 Ω to 30 Ω 30 Ω to 100 Ω 100 Ω to 300 Ω 300 Ω to 1 kΩ 1 kΩ to 3 kΩ 3 kΩ to 10 kΩ 10 kΩ to 30 kΩ 30 kΩ to 100 kΩ 100 kΩ to 300 kΩ 300 kΩ to 1 MΩ 1 MΩ to 10 MΩ 10 MΩ to 100 MΩ 100 MΩ to 1 GΩ	120 ppm + 3.5 μΩ 80 ppm + 20 μΩ 76 ppm + 62 μΩ 76 ppm + 150 μΩ 51 ppm + 150 μΩ 44 ppm + 0.93 mΩ 36 ppm + 0.93 mΩ 44 ppm + 11 mΩ 36 ppm + 11 mΩ 44 ppm + 0.11 Ω 36 ppm + 0.11 Ω 59 ppm + 0.93 Ω 54 ppm + 9.3 Ω 110 ppm + 13 Ω 110 ppm + 13 Ω 180 ppm + 150 Ω 0.13% + 12 kΩ 1.0% + 1.2 MΩ	
DC CURRENT			
Generation	0 to 200 μA 200 μA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A	24 ppm + 0.3 nA 18 ppm + 2.9 nA 18 ppm + 29 nA 32 ppm + 0.29 μA 60 ppm + 5.8 μA	
Measurement	0 to 10 μA 10 μA to 100 μA 100 μA to 1 mA 1 mA to 10 mA 10 mA to 100 mA 100 mA to 1 A 1 A to 10 A 10 A to 30 A	240 ppm + 0.29 nA 130 ppm + 1.2 nA 130 ppm + 12 nA 130 ppm + 0.20 μA 130 ppm + 7.1 μA 240 ppm + 23 μA 890 ppm + 0.25 mA 0.091% + 10 mA	
AC VOLTAGE			
Generation	90 μV to 2 mV 30 Hz 300 Hz 1 kHz 10 kHz 30 kHz 100 kHz 2 mV to 20 mV 30 Hz 300 Hz 1 kHz 10 kHz 30 kHz 100 kHz	0.23% + 20 μV 0.23% + 20 μV 0.23% + 20 μV 0.23% + 20 μV 0.23% + 20 μV 0.24% + 20 μV 0.26% + 20 μV 360 ppm + 20 μV 340 ppm + 20 μV 340 ppm + 20 μV 360 ppm + 20 μV 450 ppm + 20 μV 610 ppm + 20 μV	Calibrations can be performed at intermediate frequencies but the uncertainties may be increased.



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AC VOLTAGE (cont'd)			
Generation (cont'd)	20 mV to 200 mV		
	30 Hz	150 ppm + 20 μ V	
	300 Hz	120 ppm + 20 μ V	
	1 kHz	120 ppm + 20 μ V	
	10 kHz	130 ppm + 20 μ V	
	30 kHz	210 ppm + 20 μ V	
	100 kHz	380 ppm + 20 μ V	
	200 mV to 2 V		
	10 Hz	63 ppm + 20 μ V	
	30 Hz	60 ppm + 20 μ V	
	300 Hz	51 ppm + 20 μ V	
	1 kHz	63 ppm + 20 μ V	
	10 kHz	56 ppm + 20 μ V	
	30 kHz	54 ppm + 20 μ V	
	100 kHz	69 ppm + 20 μ V	
	300 kHz	130 ppm + 20 μ V	
	1 MHz	0.1% + 20 μ V	
	2 V to 20 V		
	10 Hz	60 ppm + 20 μ V	
	30 Hz	56 ppm + 20 μ V	
	300 Hz	50 ppm + 20 μ V	
	1 kHz	48 ppm + 20 μ V	
	10 kHz	50 ppm + 20 μ V	
	30 kHz	51 ppm + 20 μ V	
	100 kHz	78 ppm + 20 μ V	
	300 kHz	120 ppm	
	1 MHz	710 ppm	
	20 V to 200 V		
	10 Hz	100 ppm	
	30 Hz	92 ppm	
	300 Hz	87 ppm	
	1 kHz	85 ppm	
	10 kHz	87 ppm	
	30 kHz	87 ppm	
	100 kHz	150 ppm	
	200 V to 1100 V		
	50 Hz and 55 Hz	46 ppm	
	300 Hz	53 ppm	
	1 kHz	48 ppm	
	10 kHz	60 ppm	
	100 kHz	410 ppm	750 V maximum above 33 kHz
Measurement	45 Hz to 10 kHz		
	0 to 30 mV	0.10% + 100 μ V	
	30 mV to 300 mV	0.09% + 110 μ V	
	300 mV to 3 V	0.09% + 0.48 mV	
	3 V to 30 V	0.09% + 4.7 mV	
	45 Hz to 1 kHz		
	30 V to 300 V	0.90% + 140 mV	



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AC VOLTAGE (cont'd) Measurement (cont'd)	45 Hz to 55 Hz 300 V to 750 V	1.0%	
	50 Hz 300 V to 3 kV	1.2%	
AC CURRENT Generation	10 Hz to 5 kHz 9 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 2 A	200 ppm + 20 nA 160 ppm + 160 nA 160 ppm + 1.6 μ A 160 ppm + 16 μ A 270 ppm + 160 μ A up to 1 kHz 700 ppm + 200 μ A above 1 kHz	
Measurement	45 Hz to 1 kHz 0 to 30 μ A 30 μ A to 300 μ A 300 μ A to 3 mA 3 mA to 30 mA 30 mA to 300 mA 300 mA to 3 A	1.0 μ A 0.28% + 1.5 μ A 0.28% + 12 μ A 0.27% + 120 μ A 0.27% + 1.2 mA 0.91% + 12 mA	
OPTICAL GLOSS Material	Measured at fixed geometries of: 20° Mirror High Gloss Semi Gloss 60° Mirror High Gloss Semi Gloss 85° Mirror High Gloss Semi Gloss	24 SGU 0.8 SGU 1.1 SGU 22 SGU 0.6 SGU 1.1 SGU 1.1 SGU 0.5 SGU 1.1 SGU	
Glossmeters	at geometries of 20°, 60°, 85° 0-100 SGU 101-2000 SGU	0.8 SGU 1.1 SGU	

END