


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>0318</p> <p>Accredited to ISO/IEC 17025:2005</p>	<h3>CoMech Metrology Limited</h3> <p>Issue No: 022 Issue date: 29 September 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
<p>RANGE IN MILLIMETRES AND UNDERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED</p>			
<p>MEASURING INSTRUMENTS AND MACHINES</p>			<p>NOTES</p> <p>Calibrations may be made in metric or imperial units.</p>
<p>Micrometers External Internal Depth</p>	<p>BS 870:2008, 0 to 600 BS 959:2008, 0 to BS 6468:2008, 0 to 300</p>	<p>Heads 2.0 Setting and extension rods 1.0 + (5.0 x length in m)</p>	
<p>Vernier gauges Caliper Height Depth Dial gauge type Digital type</p>	<p>BS 887:2008 0 to 600 BS 1643:2008, 0 600 BS 6365:2008, 0 to 300 0 to 300 0 to 300</p>	<p>Overall performance: 10 + (30 x length in m)</p>	
<p>Dial gauges and dial test indicators</p>	<p>0 to 50 BS 907:2008 and BS 2795:1981</p>	<p>1.0</p>	
<p>Electronic probes and indicator units</p>	<p>Up to 10,000 magnification</p>	<p>1% of range 0.50 minimum</p>	
<p>Calibration blocks for use in ultrasonic flaw detection</p>	<p>12.5 x 75 x 75 and 25 x 100 x 300 BS EN ISO 27963:1992 and BS EN 12223:2000</p>	<p>Linear dimensions 10</p>	
<p>Eddy current test pieces</p>	<p>0 to 100 x 100 x 100</p>	<p>2.0</p>	
<p>Surface texture of Gauges (excluding surface texture standards)</p>	<p>As BS 1134:Part 1:1988</p>	<p>7% (minimum 1.0 μm Ra)</p>	
<p>Receiver, position and profile gauges, jigs, fixtures</p>	<p>0 to 500 x 1000 x 2000</p>	<p>10 + (20 x length in m) (Minimum per co-ordinate)</p>	
<p>Length gauges, flat and spherical ended (excluding length bars)</p>	<p>25 to 1200</p>	<p>1.0 + (5.0 x length in m)</p>	
<p>Plain plug gauges parallel</p>	<p>0 to 100</p>	<p>1.0</p>	



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PRESSURE			
<u>Gas pressure (gauge)</u>			
Calibration of pressure measuring instruments and gauges and	- 100 kPa to 2 MPa	800 Pa	
<u>Hydraulic pressure (gauge)</u>			
Calibration of pressure measuring instruments and gauges.	600 kPa to 5.5 MPa 6 MPa to 110 MPa	0.045 % 0.058 %	
TORQUE			
Hand torque tools	As BS EN ISO 6789 :2003 7 N.m to 1356 N.m	1.5 %	
ELECTRICAL MEASUREMENTS			
DC Voltage			
	0 mV to 320 mV 320 mV to 3.2 V 3.2 V to 32 V 32 V to 320 V 320 V to 1.1 kV	70 ppm + 5.0 μ V 130 ppm + 50 μ V 90 ppm + 0.50 mV 120 ppm + 5.3 mV 82 ppm + 26 mV	
High Voltage			
	1 kV to 3 kV 3 kV to 8 kV	0.60 % +40 V 0.60 % + 46 V	
DC Current			
	0 μ A to 320 μ A 320 μ A to 3.2 mA 3.2 mA to 32 mA 32 mA to 3.2 A 3.2 A to 10.5 A 10.5 A to 20 A 20 A to 105 A 105 A to 525 A 525 A to 1000 A	180 ppm + 14 nA 280 ppm + 110 nA 330 ppm + 1.2 μ A 780 ppm + 150 μ A 690 ppm + 1.2 mA 0.45 % + 26 mA 750 ppm + 12 mA 750 ppm + 60 mA 0.50 % + 1.3 A	-Simulation using a multi - turn Coil -
Resistance			
	0 Ω to 40 Ω 40 Ω to 400 Ω 400 Ω to 4 k Ω 4 k Ω to 40 k Ω 40 k Ω to 400 k Ω 400 k Ω to 4 M Ω 4 M Ω to 40 M Ω 40 M Ω to 400 M Ω 400 M Ω to 999 M Ω 1 G Ω to 2 G Ω	330 ppm + 12 m Ω 320 ppm + 24 m Ω 180 ppm + 110 m Ω 350 ppm + 1.1 Ω 300 ppm + 11 Ω 580 ppm + 130 Ω 0.17 % + 2.4 k Ω 0.30 % + 47 k Ω 8.7 M Ω 21 M Ω	



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AC Voltage	21 mV to 320 mV 10 Hz to 3 kHz 3 kHz to 10 kHz 10 kHz to 30 kHz	480 ppm + 23 μ V 480 ppm + 30 μ V 700 ppm + 56 μ V	
	320 mV to 3.2 V 10 Hz to 3 kHz 3 kHz to 10 kHz 10 kHz to 30 kHz	480 ppm + 230 μ V 480 ppm + 300 μ V 700 ppm + 560 μ V	
	3.2 V to 32 V 10 Hz to 3 kHz 3 kHz to 10 kHz 10 kHz to 30 kHz	490 ppm + 2.3 mV 700 ppm + 3.0 mV 940 ppm + 6 mV	
	32 V to 320 V 10 Hz to 3 kHz 3 kHz to 10 kHz 10 kHz to 30 kHz	0.10 % + 23 mV 0.10 % + 38 mV 0.17 % + 74 mV	
High Voltage	320 V to 1050 V 10 Hz to 3 kHz 3 kHz to 10 kHz 10 kHz to 20 kHz	930 ppm + 160 mV 930 ppm + 250 mV 0.14 % + 370 mV	
	1 kV to 3 kV 50 Hz 3 kV to 8 kV 50 Hz	0.60 % + 40 V 0.60 % + 46 V	
AC Current	32 mA to 320 mA 10 Hz to 3 kHz 3 kHz to 10 kHz 10 kHz to 30 kHz	970 ppm + 38 μ A 0.13 % + 56 μ A 0.30 % + 110 μ A	
	320 mA to 3.2 A 10 Hz to 3 kHz 3 kHz to 10 kHz	0.12 % + 560 μ A 0.13 % + 3.0 mA	
	3.2 A to 10.5 A 10 Hz to 3 kHz 3 kHz to 10 kHz	0.23 % + 4.4 mA 0.58 % + 12 mA	
Generation only above 10 A	10.5 A to 105 A 10 Hz to 400 Hz	0.28 % + 44 mA	
	105 A to 525 A 10 Hz to 400 Hz	0.28 % + 220 mA	-Simulation using a multi -turn coil



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AC Current			
17th Edition capability			
Insulation Resistance	10 k Ω to 60 k Ω 60 k Ω to 600 k Ω 600 k Ω to 9 M Ω 9 M Ω to 99 M Ω 99 M Ω to 999 M Ω 999 M Ω to 2 G Ω	380 ppm + 22 Ω 81 ppm + 71 Ω 0.30 % + 760 Ω 0.50 % + 58 k Ω 1.0 % + 120 k Ω 1.6 % + 120 k Ω	
Insulation Resistance: test current	0.5 mA to 1 mA	10 μ A	
Continuity resistance	20 m Ω 100 m Ω to 1 Ω 100 Ω 1 k Ω	3 m Ω 35 m Ω 0.050 % 0.040 %	
Continuity resistance current	100 mA to 300 mA	9.0 mA	
Voltage Output	100 V to 400 V 50 Hz	0.17 % + 12 mV	
Voltage measurement	50 V to 1 kV 50 Hz	0.14 % + 0.38 V	
Loop impedance	10 m Ω to 300 m Ω (50 Hz) 300 m Ω to 10 Ω (50 Hz) 10 Ω to 100 Ω (50 Hz) 100 Ω to 1 k Ω (50 Hz)	17 m Ω 17 m Ω 56 m Ω 0.070 % + 180 m Ω	
RCD Trip Current	1 mA to 300 mA (50 Hz)	5.0 mA	
RCD Trip time	0 ms to 400 ms 400 ms to 1 s	4.0 ms 9.0 ms	
Earth Bond resistance	0 Ω to 10 Ω 10 Ω to 1 k Ω	0.060 % + 2.5 m Ω 0.070 % + 2.5 m Ω	
Earth bond current	100 μ A to 100 mA 100 mA to 20 A	4.0 mA 0.60 % + 32 mA	
Leakage current	1 μ A to 10 mA	0.30 % + 25 μ A	
END			