


# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p><b>0310</b></p> <p>Accredited to ISO/IEC 17025:2005</p>	<p><b>RS Calibration</b> a trading name of <b>RS Components Ltd</b></p> <p><b>Issue No:</b> 050    <b>Issue date:</b> 11 September 2017</p>	
	<p><b>DPN 175</b> Lammas Road Corby Northamptonshire NN17 5JF</p>	<p><b>Contact: Mr S MacLeod</b> Tel: +44 (0)1536 405362 E-Mail: <a href="mailto:Steven.MacLeod@rs-components.com">Steven.MacLeod@rs-components.com</a> Website: <a href="http://uk.rs-online.com/web/">http://uk.rs-online.com/web/</a></p>
<p><b>Calibration performed at the above address only</b></p>		

### DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ( $k = 2$ )	Remarks
<b>ELECTRICAL MEASUREMENTS</b>			
DC RESISTANCE			
Specific values Generation	1 mΩ 10 mΩ 100 mΩ 1 Ω 10 Ω 100 Ω 1 kΩ 10 kΩ 100 kΩ 1 MΩ 10 MΩ 100 MΩ 1 GΩ	77 ppm 52 ppm 52 ppm 3.0 ppm 11 ppm 3.0 ppm 3.0 ppm 8.0 ppm 53 ppm 53 ppm 53 ppm 54 ppm 63 ppm	Specific values are those which fall within ± 0.5% of the stated values.
Measurement	0 Ω to 2 Ω 2 Ω to 20 Ω 20 Ω to 200 Ω 200 Ω to 2 kΩ 2 kΩ to 20 kΩ 20 kΩ to 200 kΩ 200 kΩ to 2 MΩ 2 MΩ to 20 MΩ 20 MΩ to 200 MΩ 200 MΩ to 2 GΩ	20 ppm + 4.0 μΩ 12 ppm + 14 μΩ 10 ppm + 50 μΩ 10 ppm + 0.50 mΩ 10 ppm + 5.0 mΩ 10 ppm + 50 mΩ 12 ppm + 1.0 Ω 27 ppm + 100 Ω 150 ppm + 10 kΩ 0.18 % + 1.0 MΩ	
DC VOLTAGE Generation	0 V to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V 220 V to 1 kV	16 ppm + 1.3 μV 9.0 ppm + 0.80 μV 8.0 ppm + 3.0 μV 11 ppm + 50 μV 12 ppm + 500 μV	



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Measurement	0 V to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 220 V to 1 kV	8.0 ppm + 0.10 $\mu$ V 5.0 ppm + 0.40 $\mu$ V 5.0 ppm + 4.0 $\mu$ V 7.0 ppm + 40 $\mu$ V 7.0 ppm + 500 $\mu$ V	Multi-turn calibration of clamp-on ammeters
DC CURRENT Generation	0 $\mu$ A to 220 $\mu$ A 220 $\mu$ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 1 A	80 ppm + 13 nA 78 ppm + 10 nA 78 ppm + 100 nA 89 ppm + 1.0 $\mu$ A 130 ppm + 30 $\mu$ A	
	2 A to 10 A 10 A to 20 A 20 A to 100 A	280 ppm 120 ppm 150 ppm	
	50 A to 500 A 500 A to 2500 A	590 ppm 630 ppm	
Measurement	0 $\mu$ A to 200 $\mu$ A 200 $\mu$ A to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A	16 ppm + 0.40 nA 16 ppm + 4.0 nA 17 ppm + 40 nA 56 ppm + 800 nA 220 ppm + 16 $\mu$ A 470 ppm + 400 $\mu$ A	
AC VOLTAGE Generation	20 Hz to 40 Hz 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	0.81 % + 5.0 $\mu$ V 850 ppm + 6.0 $\mu$ V 320 ppm + 10 $\mu$ V 210 ppm + 30 $\mu$ V 210 ppm + 300 $\mu$ V 210 ppm + 3.0 mV	
	40 Hz to 10 kHz 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V 220 V to 1000V	0.85 % + 5.0 $\mu$ V 850 ppm + 6.0 $\mu$ V 220 ppm + 10 $\mu$ V 110 ppm + 7.0 $\mu$ V 110 ppm + 70 $\mu$ V 120 ppm + 1.0 mV 120 ppm + 4.0 mV	
	10 kHz to 30 kHz 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	0.81 % + 5.0 $\mu$ V 930 ppm + 6.0 $\mu$ V 470 ppm + 10 $\mu$ V 170 ppm + 20 $\mu$ V 170 ppm + 200 $\mu$ V 280 ppm + 4.0 mV	



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AC VOLTAGE Generation (cont'd)	<i>30 kHz to 50 kHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	0.81 % + 8.0 $\mu$ V 0.14 % + 8.0 $\mu$ V 0.11 % + 30 $\mu$ V 330 ppm + 80 $\mu$ V 330 ppm + 400 $\mu$ V 700 ppm + 10 mV	
Measurement	<i>50 kHz to 100 kHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	1.2 % + 15 $\mu$ V 0.20 % + 15 $\mu$ V 0.14 % + 30 $\mu$ V 570 ppm + 150 $\mu$ V 660 ppm + 1.7 mV 0.19 % + 110 mV	
	<i>10 Hz to 40 Hz</i> 1 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V	170 ppm + 4.0 $\mu$ V 140 ppm + 20 $\mu$ V 140 ppm + 200 $\mu$ V 140 ppm + 2.0 mV	
	<i>40 Hz to 100 Hz</i> 1 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1000 V	140 ppm + 4.0 $\mu$ V 110 ppm + 20 $\mu$ V 110 ppm + 200 $\mu$ V 110 ppm + 2.0 mV 140 ppm + 20 mV	
	<i>100 Hz to 2 kHz</i> 1 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1000 V	140 ppm + 2.0 $\mu$ V 90 ppm + 20 $\mu$ V 90 ppm + 200 $\mu$ V 94 ppm + 2.0 mV 140 ppm + 20 mV	
	<i>2 kHz to 10 kHz</i> 1 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1000 V	160 ppm + 4.0 $\mu$ V 130 ppm + 20 $\mu$ V 130 ppm + 200 $\mu$ V 130 ppm + 2.0 mV 140 ppm + 20 mV	
	<i>10 kHz to 30 kHz</i> 1 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1000 V	400 ppm + 8.0 $\mu$ V 260 ppm + 40 $\mu$ V 260 ppm + 400 $\mu$ V 260 ppm + 4.0 mV 270 ppm + 40 mV	
	<i>30 kHz to 100 kHz</i> 1 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1000 V	0.090 % + 20 $\mu$ V 660 ppm + 200 $\mu$ V 660 ppm + 2.0 mV 660 ppm + 20 mV 680 ppm + 200 mV	



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Measurement (cont'd)	100 kHz to 300 kHz 200 mV to 2 V 2 V to 20 V 20 V to 200 V	0.35 % + 2.0 mV 0.35 % + 20 mV 0.35 % + 200 mV	
	300 kHz to 1 MHz 200 mV to 2 V 2 V to 20 V	1.2 % + 20 mV 1.2 % + 200 mV	
AC CURRENT Generation	10 Hz to 20 Hz 1 $\mu$ A to 220 $\mu$ A 220 $\mu$ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA	900 ppm + 30 nA 890 ppm + 50 nA 890 ppm + 500 nA 890 ppm + 5.0 $\mu$ A	
	20 Hz to 40 Hz 1 $\mu$ A to 220 $\mu$ A 220 $\mu$ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A	530 ppm + 30 nA 510 ppm + 50 nA 510 ppm + 500 nA 510 ppm + 5.0 $\mu$ A 840 ppm + 40 $\mu$ A	
	40 Hz to 300 Hz 1 $\mu$ A to 220 $\mu$ A 220 $\mu$ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A	0.010 % + 20 nA 260 ppm + 40 nA 250 ppm + 400 nA 270 ppm + 4.0 $\mu$ A 830 ppm + 40 $\mu$ A	
	300 Hz to 1 kHz 1 $\mu$ A to 220 $\mu$ A 220 $\mu$ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A	780 ppm + 50 nA 780 ppm + 500 nA 780 ppm + 5.0 $\mu$ A 780 ppm + 50 $\mu$ A 940 ppm + 100 $\mu$ A	
	1 kHz to 5 kHz 1 $\mu$ A to 220 $\mu$ A 220 $\mu$ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A	0.24 % + 100 nA 0.21 % + 1.0 $\mu$ A 0.20 % + 10 $\mu$ A 0.20 % + 100 $\mu$ A 1.1 % + 200 $\mu$ A	
	30 Hz to 2 kHz 10 $\mu$ A to 0.5 A 0.5 A to 10 A 10 A to 20 A	200 ppm 250 ppm 250 ppm	
	50 Hz to 60 Hz 20 A to 50 A 50 A to 100 A	0.11 % 0.16 %	
	50 Hz to 800 Hz 50A to 250 A	0.12 %	Multi-turn calibration of clamp-on ammeters



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AC CURRENT Generation (cont'd)	50 Hz to 100 Hz 250 A to 500 A 500 A to 1250 A 1250 A to 1750 A	0.11 % 0.17 % 0.19 %	
Measurement	50 Hz to 60 Hz 1750 A to 2500 A	0.19 %	
	100 Hz to 2 kHz 1 $\mu$ A to 200 $\mu$ A 200 $\mu$ A to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A	600 ppm + 20 nA 360 ppm + 200 nA 350 ppm + 2.0 $\mu$ A 340 ppm + 20 $\mu$ A 720 ppm + 200 $\mu$ A 950 ppm + 2.0 mA	
	2 kHz to 10 kHz 1 $\mu$ A to 200 $\mu$ A 200 $\mu$ A to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A	600 ppm + 20 nA 360 ppm + 200 nA 350 ppm + 2.0 $\mu$ A 340 ppm + 20 $\mu$ A 850 ppm + 200 $\mu$ A	
AC RESISTANCE at 50 Hz	80 m $\Omega$	5.0 m $\Omega$	Clean Line. For the calibration of earth loop testers with 1 m $\Omega$ resolution.
	70 m $\Omega$	10 m $\Omega$	Clean Line. For the calibration of general earth loop testers.
	0.22 $\Omega$ 0.4 $\Omega$ 1 $\Omega$ 5 $\Omega$ 10 $\Omega$ 100 $\Omega$	2.0 m $\Omega$ 2.0 m $\Omega$ 3.0 m $\Omega$ 9.0 m $\Omega$ 6.0 m $\Omega$ 60 m $\Omega$	Loads for the calibration of earth loop testers
AC CURRENT Generation	10 $\mu$ A to 0.5 A, 30 Hz to 2 kHz 0.5 A to 10 A, 30 Hz to 2 kHz 10 A to 20 A, 30 Hz to 2 kHz 20 A to 50 A, 50 Hz to 60 Hz 50 A to 100 A, 50 Hz to 60 Hz	200 ppm 250 ppm 250 ppm 0.11 % 0.16 %	
	50A to 250 A, 50 Hz to 800 Hz 250 A to 500 A, 50 Hz to 100 Hz 500 A to 1250 A, 50 Hz to 100 Hz 1250 A to 1750 A, 50 Hz to 100 Hz 1750 A to 2500 A, 50 Hz to 60 Hz	0.12 % 0.11 % 0.17 % 0.19 % 0.19 %	Multi-turn calibration of clamp-on ammeters



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INDUCTANCE at 1 kHz			
Generation	100 $\mu$ H 1 mH 10 mH 100 mH 1 H	330 ppm 190 ppm 230 ppm 160 ppm 160 ppm	For the calibration of inductance measuring instruments
CAPACITANCE at 1 kHz			
Generation	1 nF 2 nF 3 nF 4 nF 5 nF 6 nF to 9 nF 10 nF 20 nF to 80 nF 90 nF 100 nF to 900 nF 1 $\mu$ F 2 $\mu$ F 3 $\mu$ F and 4 $\mu$ F 5 $\mu$ F and 9 $\mu$ F 10 $\mu$ F to 30 $\mu$ F 40 $\mu$ F and 50 $\mu$ F 90 $\mu$ F and 100 $\mu$ F	0.092 % 0.068 % 0.060 % 0.057 % 0.051 % 0.051 % 0.050 % 0.031 % 0.037 % 0.042 % 0.048 % 0.12 % 0.10 % 0.12 % 0.12 % 0.13 % 0.13 %	For the calibration of capacitance measuring instruments
FREQUENCY			
Measurement	10 Hz to 100 kHz 100 kHz to 1 MHz 1 MHz to 2 GHz	1.0 in $10^6$ 1.0 in $10^7$ 5.0 in $10^8$	
Timer and stopwatch calibrations	5 s to 99 999s	0.10 s	
<b>OSCILLOSCOPE CALIBRATION</b>			
Timing markers	500 ps to 10 ms	0.29 ppm	The uncertainty quoted will be particularly dependent on the horizontal resolution of the oscilloscope being calibrated.
Voltage Amplitude	600 mV to 60 V 60 V to 120 V	0.12 % 0.20 %	The uncertainty quoted will be particularly dependent on the vertical resolution of the oscilloscope being calibrated.



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Bandwidth	<i>Input VSWR up to 1.2:1</i> 50 kHz to 100 MHz 100 MHz to 250 MHz 250 MHz to 330 MHz 330 MHz to 600 MHz 600 MHz to 1 GHz	0.21 dB 0.23 dB 0.26 dB 0.41 dB 0.38 dB	The uncertainty quoted will be dependent on the vertical resolution of the oscilloscope being calibrated.
Bandwidth (cont;d)	<i>Input VSWR from 1.2:1 to 1.6:1</i> 550 MHz to 1 GHz	0.53 dB	The uncertainty quoted will be dependent on the vertical resolution of the oscilloscope being calibrated.
Rise and fall times	Using 150 ps edge Using 500 ps edge	21 ps 50 ps	The uncertainty quoted will be dependent on the vertical and horizontal resolution of the oscilloscope being calibrated.
Input resistance (DC)	50 $\Omega$ 1 M $\Omega$	0.13 % 0.13 %	For values within $\pm 20\%$ of the nominal values shown.
<b>AUTOMATED SYSTEM FOR CALIBRATION OF MULTI-FUNCTION CALIBRATORS</b>			
DC RESISTANCE Specific Values	0 $\Omega$ 1 $\Omega$ 10 $\Omega$ 100 $\Omega$ 1 k $\Omega$ 10 k $\Omega$ 100 k $\Omega$ 1 M $\Omega$ 10 M $\Omega$ 100 M $\Omega$	70 $\mu\Omega$ 70 ppm 20 ppm 13 ppm 12 ppm 12 ppm 19 ppm 32 ppm 49 ppm 640 ppm	Generation of these parameters up to and including 100 kHz may also be undertaken but the uncertainties may be increased
DC VOLTAGE Specific Vaules	0 V 100 mV 1 V 10 V 19 V 100 V 1000 V	1.1 $\mu$ V 12 ppm 7.0 ppm 6.0 ppm 6.0 ppm 8.0 ppm 8.0 ppm	



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DC CURRENT Specific Values	0 $\mu$ A 100 $\mu$ A 1 mA 10 mA 100 mA 1 A 10 A	5.0 nA 48 ppm 45 ppm 45 ppm 46 ppm 70 ppm 100 ppm	
AC VOLTAGE	<p><i>At 10 Hz, 20 Hz, 30 Hz, 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz, 1 kHz, 10 kHz and 20 kHz:</i></p> <p>1 mV 10 mV 100 mV</p> <p><i>At 30 kHz and 50 kHz:</i></p> <p>1 mV 10 mV 100 mV</p> <p><i>At 100 kHz:</i></p> <p>1 mV 10 mV 100 mV</p> <p>1 V and 10 V: <i>10 Hz, 20 Hz and 30 Hz 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz, 1 kHz, 10 kHz, 20 kHz and 30 kHz 50 kHz 100 kHz 300 kHz 500 kHz 1 MHz</i></p> <p>19 V: 1 kHz</p> <p>100 V: <i>10 Hz, 20 Hz and 30 Hz 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz, 1 kHz, 10 kHz, 20 kHz and 30 kHz 50 kHz 100 kHz</i></p> <p>1000 V: <i>50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz</i></p>	<p>0.80 % 800 ppm 170 ppm</p> <p>0.80 % 810 ppm 230 ppm</p> <p>1.1 % 0.13 % 440 ppm</p> <p>49 ppm</p> <p>44 ppm 80 ppm 110 ppm 270 ppm 480 ppm 0.11 %</p> <p>44 ppm</p> <p>55 ppm</p> <p>49 ppm 80 ppm 130 ppm</p> <p>70 ppm</p>	1 mV and 10 mV are not available at 10 Hz





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AC CURRENT	100 $\mu$ A: 10 Hz and 20 Hz 30 Hz 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz 5 kHz  1 mA: 10 Hz and 20 Hz 30 Hz 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz 5 kHz  10 mA: 10 Hz and 20 Hz 30 Hz 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz 5 kHz  100 mA: 10 Hz and 20 Hz 30 Hz 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz 5 kHz  1 A: 10 Hz and 20 Hz 30 Hz 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz 5 kHz  10 A: 40 Hz, 55 Hz, 300 Hz and 1 kHz	230 ppm 220 ppm  210 ppm 380 ppm  190 ppm 190 ppm  180 ppm 290 ppm  190 ppm 190 ppm  180 ppm 280 ppm  230 ppm 220 ppm  190 ppm 330 ppm  800 ppm	
<b>ELECTRICAL SIMULATION OF TEMPERATURE</b>			
Base metal thermocouple indicators			Including Cold Junction Compensation
K type	- 200 °C to - 190 °C - 190 °C to - 100 °C - 100 °C to + 1300 °C	0.31 °C 0.19 °C 0.15 °C	
T Type	- 150 °C to - 100 °C - 100 °C to 0 °C 0 °C to 400 °C	0.20 °C 0.16 °C 0.12 °C	



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J Type	- 100 °C to 0 °C 0 °C to 500 °C 500 °C to 1000 °C	0.13 °C 0.13 °C 0.12 °C	
<b>CALIBRATION OF 16<sup>TH</sup>/17<sup>TH</sup> EDITION TEST EQUIPMENT</b>			
Insulation Resistance	10 kΩ to 5 MΩ 5 MΩ to 100 MΩ 100 MΩ to 1 GΩ	0.16 % 1.2 % 1.4 %	
Continuity Resistance	900 mΩ to 2 Ω 2 Ω to 6 Ω 6 Ω to 20 Ω 100 Ω 1 kΩ	3.5 % 1.1 % 0.67 % 0.32 % 1.2 %	
Continuity Current	100 mA 200 mA 300 mA	2.2 % 1.9 % 1.7 %	
Insulation Voltage	50 V 100 V 250 V 500 V 1000 V	3.0 % 2.1 % 1.5 % 1.3 % 1.3 %	
Current on Insulation resistance function			
1000 V range	0.5 mA 1.0 mA	3.1 % 2.1 %	
500 V range	0.5 mA 1.0 mA	3.1 % 2.1 %	
Loop Resistance at 50 Hz	0.33 Ω 0.5 Ω 1 Ω 5 Ω 10 Ω 100 Ω 1000 Ω	5.8 % 3.9 % 2.1 % 0.76 % 0.65 % 0.58 % 0.58 %	



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RCD Current at 50 Hz	10 mA to 30 mA 30 mA to 300 mA 300 mA 2 A	2.1 % 1.9 % 1.6 %	
RCD Trip Time	20 ms to 40 ms 40 ms to 200 ms 200 ms to 390 ms 390 ms to 900 ms	4.8 % 2.4 % 0.48 % 0.90 %	
PAT Insulation Resistance	1 M $\Omega$ to 4 M $\Omega$ 4 M $\Omega$ to 10 M $\Omega$	0.16 % 1.2 %	
PAT Earth Bond Resistance at 50 Hz	0.1 $\Omega$ 0.22 $\Omega$ 0.33 $\Omega$ 0.5 $\Omega$ 1 $\Omega$ 5 $\Omega$ 10 $\Omega$ 100 $\Omega$ 1000 $\Omega$	5.4 % 2.8 % 2.0 % 1.5 % 1.1 % 0.67 % 0.63 % 0.58 % 0.58 %	
PAT Earth Bond Current at 50 Hz	0 mA to 100 mA 100 mA to 10 A 10 A to 30 A	2.1 % + 6 mA 1.7 % + 60 mA 1.7 % + 60 mA	
PAT Leakage Current Test	2.7 mA at 240 V 4.7 mA at 240 V 7.7 mA at 240 V	1.9 % 1.8 % 1.8 %	
PAT Flash Voltage Test At 50 Hz	1000 V (Class 1) 1500 V (Class 1) 1000 V (Class 2) 3000 V (Class 2)	5.8 % 5.4 % 5.8 % 5.0 %	
PAT Flash Current Test At 50 Hz	0.67 mA at 1000 V (Class 1) 1.00 mA at 1500 V (Class 1) 0.34 mA at 1000 V (Class 2) 1.00 mA at 3000 V (Class 2)	6.0 % 5.9 % 6.8 % 5.9 %	



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<b>TEMPERATURE CALIBRATION</b>			
Temperature indicators and recorders with temperature sensor(s)	- 20 °C to - 10 °C - 10 °C to + 20 °C 20 °C to 100 °C 100 °C to 200 °C 50 °C to 200 °C 200 °C to 550 °C	0.049 °C 0.039 °C 0.053 °C 0.056 °C 0.184 °C 0.207 °C	Using oil bath Using oil bath Using oil bath Using oil bath Using hot block Using hot block
Temperature probes in air	16 °C to 30 °C	0.07°C	Air chamber
<b>DEW POINT and RELATIVE HUMIDITY</b>			
Dew-point	-10°C to 40°C	0.12°C to 0.33°C	
Relative humidity instruments	Example conditions	Corresponding to above dew-point and temperature uncertainties	
	At 5°C 5 %rh to 85%rh	0.4 %rh	
	At 23°C 5 %rh to 85 %rh	0.4 %rh to 0.7 %rh	
	At 50°C 5 %rh to 59 %rh	0.4 %rh to 1.1 %rh	





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<b>DIMENSIONAL MEASUREMENTS</b>				
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
<b>LENGTH</b>			<b>NOTES</b>	
Micrometers				
External	BS 870:2008 0 to 600	 Heads: 2.0 Setting and extension rods: $1.0 + (8.0 \times \text{length in m})$  Overall performance $10 + (30 \times \text{length in m})$	1. The uncertainty quoted is for the departure from flatness, straightness, or squareness, i.e. the distance separating the two parallel planes that just enclose the surface under consideration.	
Internal	BS 959:2008 0 to 600			
Depth	BS 6468:2008 0 to 300			
Vernier Gauges				
Calipers	BS 887:2008 0 to 600			
Height gauges	BS 1643:2008 0 to 600			
Depth gauges	BS 6365:2008 0 to 300			
Dial gauges and dial test indicators	BS 907:2008 and BS 2795:1981 0 to 100			1.0
Feeler gauges	BS 957:2008 0.03 to 1			1.5
Steel rules, engineers	0 to 1200			$8.0 + (10 \times \text{length in metres})$
<b>ANGLE</b>				
Squares Blades Type	BS 939:2007 0 to 300	3.0	 On squareness See Note 1	



0310  
Accredited to  
ISO/IEC 17025:2005

**Schedule of Accreditation**  
issued by  
**United Kingdom Accreditation Service**  
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

**RS Calibration**  
a trading name of  
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Calibration performed at main address only

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ( $k = 2$ )	Remarks
MEASURING INSTRUMENTS AND MACHINES			
Road measuring wheels			
Derived road wheel calibration factor	0.95 to 1.05	0.0014	1. The uncertainty quoted is for the departure from flatness, straightness, or squareness, i.e. the distance separating the two parallel planes that just enclose the surface under consideration.
PRESSURE CALIBRATION			
Gas pressure (gauge)			
Calibration of pressure indicating instruments and gauges	-90 kPa to 150 kPa 150 kPa to 400 kPa 400 kPa to 1 MPa 1 MPa to 2.5 MPa 2.5 MPa to 10 MPa	0.010% + 0.20 kPa 0.010% + 0.20 kPa 0.010% + 1.8 kPa 0.010% + 1.6 kPa 0.010% + 7.5 kPa	
Hydraulic pressure (gauge)			
Calibration of pressure indicating instruments and gauges	0 MPa to 0.6 MPa 0.6 MPa to 6 MPa 6.0 MPa to 60 MPa 60 MPa to 120 MPa	0.010% + 6.7 kPa 186 ppm 181 ppm 0.011% + 98 kPa	
END			