Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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0310

Accredited to ISO/IEC 17025:2017

RS Calibration
a trading name of RS Components Ltd

Issue No: 062 **Issue date:** 23 September 2024

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CALIBRATION AND MEASUREMENT CAPABILITY (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
ELECTRICAL MEASUREMENTS			
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	130 µΩ/Ω 52 µΩ/Ω 52 µΩ/Ω 6.0 µΩ/Ω 12 µΩ/Ω 5.0 µΩ/Ω 5.8 µΩ/Ω 11 µΩ/Ω 53 µΩ/Ω 53 µΩ/Ω 53 µΩ/Ω 54 µΩ/Ω 300 µΩ/Ω	Known values of resistance for application to resistance measuring instruments. 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 µΩ/Ω + 4.0 µΩ 11 µΩ/Ω + 14 µΩ 10 µΩ/Ω + 50 µΩ 10 µΩ/Ω + 0.50 mΩ 10 µΩ/Ω + 5.0 mΩ 10 µΩ/Ω + 50 mΩ 11 µΩ/Ω + 1.0 Ω 24 µΩ/Ω + 100 Ω 140 µΩ/Ω + 10 kΩ 0.18 % + 1.0 MΩ	Using digital multimeter. Generation of these values may also be undertaken however the uncertainties may be increased.
DC VOLTAGE			
Measurement	0 V to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1 kV	6.0 µV/V + 0.10 µV 5.0 µV/V + 0.40 µV 5.0 µV/V + 4.0 µV 7.0 µV/V + 40 µV 7.0 µV/V + 500 µV	Using digital multimeter. Generation of these values may also be undertaken however the uncertainties may be increased.

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
DC CURRENT			
Generation	20 A to 500 A 500 A to 2500 A	590 µA/A 490 µA/A	Calibration of clamp-on ammeters and similar devices using multi-turn technique.
Measurement	0 µA to 200 µA 200 µA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A	14 µA/A + 0.40 nA 14 µA/A + 4.0 nA 17 µA/A + 40 nA 56 µA/A + 800 nA 220 µA/A + 16 µA 470 µA/A + 400 µA	Using digital multimeter. Generation of these values may also be undertaken however the uncertainties may be increased.
	2 A to 10 A 10 A to 20 A 20 A to 100 A	320 µA/A 330 µA/A 75 µA/A	Using digital multimeter and shunt. Generation of these values may also be undertaken however the uncertainties may be increased.
AC VOLTAGE Specific Values			Using AC Measurement Standard.

Expanded uncertainty (k = 2) expressed in terms of (µV/V + µV)

Generation of these values may also be undertaken, with increased uncertainties and with the following limitations:
600 µV to 220 V, 10 Hz to 1 MHz: A maximum volt-Hertz product of 2.2×10^7 applies.
220 V to 750 V: The applied frequency will be in the range 40 Hz to 100 kHz.
750 V to 1000 V: The applied frequency will be in the range 40 Hz to 30 kHz.

Voltage Range	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
600 µV to 2.2 mV	1500 + 1.3	850 + 1.3	710 + 1.3	890 + 2.0	1200 + 2.5	1900 + 4.0	2100 + 8.0	3500 + 8.0
2.2 mV to 7 mV	710 + 1.3	390 + 1.3	270 + 1.3	370 + 2.0	510 + 2.5	990 + 4.0	1200 + 8.0	2800 + 8.0
7 mV to 22 mV	260 + 1.3	190 + 1.3	140 + 1.3	200 + 2.0	270 + 2.5	660 + 4.0	870 + 8.0	2500 + 8.0
22 mV to 70 mV	210 + 1.5	130 + 1.5	100 + 1.5	130 + 2.0	220 + 2.5	440 + 4.0	740 + 8.0	2300 + 8.0
70 mV to 220 mV	180 + 1.5	100 + 1.5	80 + 1.5	90 + 2.0	150 + 2.5	270 + 4.0	600 + 8.0	2300 + 8.0
220 mV to 700 mV	180 + 1.5	100 + 1.5	80 + 1.5	90 + 2.0	100 + 2.5	230 + 4.0	570 + 8.0	750 + 8.0
700 mV to 2.2 V	160 + 0	60 + 0	30 + 0	40 + 0	60 + 0	130 + 0	210 + 0	700 + 0
2.2 V to 7 V	160 + 0	60 + 0	30 + 0	40 + 0	70 + 0	150 + 0	320 + 0	940 + 0
7 V to 22 V	160 + 0	60 + 0	30 + 0	40 + 0	70 + 0	150 + 0	320 + 0	940 + 0
22 V to 70 V	160 + 0	60 + 0	30 + 0	50 + 0	80 + 0			
70 V to 220 V	160 + 0	60 + 0	30 + 0	60 + 0	90 + 0			
220 V to 700 V	160 + 0	80 + 0	40 + 0	110 + 0	390 + 0			
700 V to 1000 V	160 + 0	80 + 0	40 + 0	110 + 0	390 + 0			

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
AC VOLTAGE (continued) Other values			
Measurement	*10 Hz to 40 Hz* 1 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V	 170 µV/V + 4.0 µV 140 µV/V + 20 µV 140 µV/V + 200 µV 140 µV/V + 2.0 mV	Using digital multimeter. Generation of these values may also be undertaken however the uncertainties may be increased.
	40 Hz to 100 Hz 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 µV/V + 4.0 µV 110 µV/V + 20 µV 110 µV/V + 200 µV 110 µV/V + 2.0 mV 140 µV/V + 20 mV	
	100 Hz to 2 kHz 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	 130 µV/V + 2.0 µV 90 µV/V + 20 µV 90 µV/V + 200 µV 87 µV/V + 2.0 mV 140 µV/V + 20 mV	
	2 kHz to 10 kHz 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 µV/V + 4.0 µV 130 µV/V + 20 µV 130 µV/V + 200 µV 130 µV/V + 2.0 mV 140 µV/V + 20 mV	
	10 kHz to 30 kHz 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 µV/V + 8.0 µV 260 µV/V + 40 µV 260 µV/V + 400 µV 260 µV/V + 4.0 mV 260 µV/V + 40 mV	
	30 kHz to 100 kHz 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	 900 µV/V + 20 µV 660 µV/V + 200 µV 660 µV/V + 2.0 mV 660 µV/V + 20 mV 670 µV/V + 200 mV	
	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	

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
AC CURRENT Generation	2 A to 250 A *50 Hz to 800 Hz*	 0.090 %	Calibration of clamp-on ammeters and similar devices using multi-turn technique.
	250 A to 1750 A *50 Hz to 100 Hz*	 0.090 %	
	1750 A to 2500 A *50 Hz to 60 Hz*	 0.090 %	
Measurement	*10 Hz to 2 kHz* 1 µA to 200 µA 200 µA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A	 580 µA/A + 20 nA 350 µA/A + 200 nA 350 µA/A + 2.0 µA 340 µA/A + 20 µA 720 µA/A + 200 µA 950 µA/A + 2.0 mA	Using digital multimeter. Generation of these values may also be undertaken however the uncertainties may be increased.
	2 kHz to 10 kHz 1 µA to 200 µA 200 µA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A	 580 µA/A + 20 nA 350 µA/A + 200 nA 350 µA/A + 2.0 µA 340 µA/A + 20 µA 850 µA/A + 200 µA	
	50 Hz to 800 Hz *2 A to 20 A* 10 A to 20 A 20 A to 50 A 50 A to 100 A	 590 µA/A 580 µA/A 0.11 % 0.11 %	Using digital multimeter and shunt. Generation of these values may also be undertaken however the uncertainties may be increased.
	50 Hz to 60 Hz 50A to 100A	 0.11 %	
INDUCTANCE			
Generation	*At 1 kHz:* 1 mH 10 mH 100 mH 1 H	 490 µH/H 500 µH/H 470 µH/H 470 µH/H	Known inductance values for the calibration of inductance measuring instruments

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
CAPACITANCE			
Generation	*At 1 kHz:*		Known capacitance values for the calibration of capacitance measuring instruments
	1 nF	0.092 %	
	2 nF	0.064 %	
	3 nF	0.058 %	
	4 nF	0.055 %	
	5 nF	0.053 %	
	6 nF to 9 nF	0.052 %	
	10 nF	0.050 %	
	20 nF to 80 nF	0.037 %	
	90 nF	0.037 %	
	100 nF to 900 nF	0.043 %	
	1 µF	0.12 %	
	2 µF	0.12 %	
	3 µF and 4 µF	0.098 %	
	5 µF and 9 µF	0.12 %	
	10 µF to 30 µF	0.19 %	
	40 µF and 50 µF	0.19 %	
	60 µF and 80 µF	0.19 %	
	90 µF and 100 µF	0.19 %	
FREQUENCY			
Measurement	10 Hz to 100 kHz	3.0 in 10^9	Using counter timer and off-air standard.
	100 kHz to 1 MHz	2.0 in 10^{10}	
	1 MHz to 6 GHz	5.0 in 10^{10}	
Timer and stopwatch calibrations	5 s to 99 999s	0.10 s	Manual calibration.
OSCILLOSCOPE CALIBRATION			
Horizontal deflection coefficients	500 ps to 10 ms	0.29 µs/s	Using time markers. The uncertainty quoted will be particularly dependent on the horizontal resolution of the oscilloscope being calibrated.
Vertical deflection coefficients	6 mV to 60 mV	0.33 %	Using chopped waveforms of known peak to peak amplitude. The uncertainty quoted will be particularly dependent on the vertical resolution of the oscilloscope being calibrated.
	60 mV to 600 mV	0.15 %	
	600 mV to 60 V	0.12 %	
	60 V to 100 V	0.12 %	
	100 V to 120 V	0.59 %	

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
Bandwidth	*Input VSWR up to 1.2:1*		
	50 kHz to 550 MHz	0.29 dB	Relative to a low frequency reference. The uncertainty quoted will be dependent on the vertical resolution of the oscilloscope being calibrated.
	550 MHz to 1 GHz	0.39 dB	
	Input VSWR from 1.2:1 to 1.6:1		
	50 kHz to 550 MHz	0.44 dB	
	550 MHz to 1 GHz	0.54 dB	
Rise and fall times	Using 150 ps edge	21 ps	Using fast rise pulses. The uncertainty quoted will be dependent on the vertical and horizontal resolution of the oscilloscope being calibrated.
	Using 500 ps edge	50 ps	
Input resistance (DC)	50 Ω	0.13 %	For values within 20% of the nominal values shown.
	1 MΩ	0.13 %	
CALIBRATION OF MULTI-FUNCTION CALIBRATORS			Using automated system. Generation of these parameters up to and including 100 kHz may also be undertaken but the uncertainties may be increased
DC RESISTANCE			
Specific Values	0 Ω	70 µΩ	
	1 Ω	70 µΩ/Ω	
	10 Ω	20 µΩ/Ω	
	100 Ω	13 µΩ/Ω	
	1 kΩ	12 µΩ/Ω	
	10 kΩ	12 µΩ/Ω	
	100 kΩ	19 µΩ/Ω	
	1 MΩ	32 µΩ/Ω	
	10 MΩ	49 µΩ/Ω	
	100 MΩ	640 µΩ/Ω	
DC VOLTAGE	0 V	1.1 µV	
Specific Values	100 mV	12 µV/V	
	1 V	7.0 µV/V	
	10 V	6.0 µV/V	
	19 V	6.0 µV/V	
	100 V	8.0 µV/V	
	1000 V	8.0 µV/V	

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
DC CURRENT Specific Values	0 µA 100 µA 1 mA 10 mA 100 mA 1 A 10 A	5.0 nA 48 µA/A 45 µA/A 45 µA/A 46 µA/A 70 µA/A 100 µA/A	
AC VOLTAGE	*At 10 Hz, 20 Hz, 30 Hz, 40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz, 1 kHz, 10 kHz and 20 kHz:* 1 mV 10 mV 100 mV	 0.80 % 800 µV/V 170 µV/V	 1 mV and 10 mV are not available at 10 Hz
	At 30 kHz and 50 kHz: 1 mV 10 mV 100 mV	 0.80 % 810 µV/V 230 µV/V	
	At 100 kHz: 1 mV 10 mV 100 mV	 1.1 % 0.13 % 440 µV/V	
	1 V and 10 V: *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*	 49 µV/V 44 µV/V 80 µV/V 110 µV/V 270 µV/V 480 µV/V 0.11 %	
	19 V: *1 kHz*	 44 µV/V	
	100 V: *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*	 55 µV/V 49 µV/V 80 µV/V 130 µV/V	
	1000 V: *50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz*	 70 µV/V	

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
AC CURRENT	100 µA:		
	10 Hz and 20 Hz	230 µA/A	
	30 Hz	220 µA/A	
	40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz	210 µA/A	
	5 kHz	380 µA/A	
	1 mA:		
	10 Hz and 20 Hz	190 µA/A	
	30 Hz	190 µA/A	
	40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz	180 µA/A	
	5 kHz	290 µA/A	
	10 mA:		
	10 Hz and 20 Hz	190 µA/A	
	30 Hz	190 µA/A	
	40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz	180 µA/A	
	5 kHz	280 µA/A	
	100 mA:		
	10 Hz and 20 Hz	190 µA/A	
	30 Hz	190 µA/A	
	40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz	180 µA/A	
	5 kHz	280 µA/A	
	1 A:		
	10 Hz and 20 Hz	230 µA/A	
	30 Hz	220 µA/A	
	40 Hz, 50 Hz, 55 Hz, 60 Hz, 300 Hz and 1 kHz	190 µA/A	
	5 kHz	411 µA/A	
	10 A:		
	40 Hz, 55 Hz, 300 Hz and 1 kHz	800 µA/A	
ELECTRICAL SIMULATION OF TEMPERATURE (Base metal thermocouple indicators & PT100)			Application or measurement of DC voltages equivalent to those for the thermocouple types indicated, with cold junction compensation enabled.
K type	-200 °C to -190 °C	0.18 °C	
	-190 °C to -100 °C	0.11 °C	
	-100 °C to +1300 °C	0.086 °C	
T Type	-150 °C to -100 °C	0.11 °C	
	-100 °C to 0 °C	0.082 °C	
	0 °C to 400 °C	0.065 °C	
J Type	-100 °C to 0 °C	0.083 °C	
	0 °C to 1000 °C	0.076 °C	
PT100	-200 °C to -50 °C	1.4 m°C	By Resistance simulation.
	-50 °C to 200 °C	2.5 m°C	
	200 °C to 300 °C	5.0 m°C	
	300 °C to 500 °C	7.4 m°C	
	500 °C to 600 °C	10 m°C	
	600 °C to 800 °C	11 m°C	

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
CALIBRATION OF 16TH/17TH EDITION TEST EQUIPMENT			Using dedicated calibration system.
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	10 % 6.7 % 3.5 % 1.2 % 1.0 % 0.87 % 0.87 %	
RCD Current *at 50 Hz*	10 mA to 30 mA 30 mA to 300 mA 300 mA to 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 %	

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
PAT Insulation Resistance	1 MΩ to 4 MΩ 4 MΩ to 10 MΩ	0.16 % 1.2 %	
PAT Earth Bond Resistance *at 50 Hz*	0.1 Ω 0.22 Ω 0.33 Ω 0.5 Ω 1 Ω 5 Ω 10 Ω 100 Ω 1000 Ω	8.0 % 4.1 % 3.0 % 2.3 % 1.6 % 1.0 % 0.94 % 0.87 % 0.87 %	
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 %	
TEMPERATURE CALIBRATION			Unless otherwise stated the calibration is performed by comparison with reference standards. Other units other than Celsius can be reported.
Temperature indicators and recorders with temperature sensor(s) – resistance	-20 ºC to -10 ºC -10 ºC to +50 ºC 50 ºC to 100 ºC 100 ºC to 200 ºC	0.042 ºC 0.037 ºC 0.055 ºC 0.051 ºC	Calibration performed within Liquid Baths.
Temperature indicators and recorders with temperature sensor(s) - thermocouple	-20 ºC to -10 ºC -10 ºC to +50 ºC 50 ºC to 100 ºC 100 ºC to 200 ºC	0.046 ºC 0.040 ºC 0.12 ºC 0.21 ºC	Calibration performed within Liquid Baths.

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
DEW POINT and RELATIVE HUMIDITY			Calibration by comparison with a reference dew point hygrometer and reference PRTs.
Dew-point	1°C to 40°C	0.33°C to 0.39°C	
Temperature probes in air and Temperature probes associated with hygrometers			
	10 °C to 20 °C 20 °C to 25 °C 25 °C to 50 °C	0.30 °C 0.30 °C 0.30 °C	Calibration performed within an air chamber.
Relative humidity instruments	Example conditions	Corresponding to above dew-point and temperature uncertainties	
	At 10 °C 53 %rh to 85 %rh At 23 °C 24 %rh to 85 %rh At 30 °C 16 %rh to 85 %rh At 60 °C 10 %rh to 37 %rh	1.5 %rh to 2.3 %rh 0.63 %rh to 1.8 %rh 0.49 %rh to 1.8 %rh 0.41 %rh to 0.87 %rh	
DIMENSIONAL MEASUREMENTS Unless otherwise stated, the ranges are presented in millimetres (mm) and the uncertainties in micrometres (µm).			
MEASURING INSTRUMENTS AND MACHINES			
Micrometers			
External	BS 870:2008 0 to 600		
	Heads: (Zero) Setting, 0 to 25: (Zero) Setting, 25 to 600: Flatness of anvils: Parallelism of anvils:	2.0 between any two points 1.0 1.0 + (8.0 x length in m) 0.50 1.2	
Internal	BS 959:2008 0 to 600		
	Heads: (Zero) Setting and extension rods:	2.0 between any two points 1.0 + (8.0 x length in m)	
Depth	BS 6468:2008 0 to 300		
	Heads: (Zero) Setting: Base Flatness: Rod Flatness: Parallelism: Rod axis of rotation: Squareness of Face to spindle / rod axis: Rod axis to datum face:	2.0 between any two points 1.0 + (8.0 x length in m) 0.42 0.42 2.7 5.0 1.6 10	

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
Vernier, Digital and Dial Gauges			
Calipers	Based on BS 887:2008 0 to 600		
	Overall performance:	10 + (30 x length in m)	
	Flatness:	4.7	
	Parallelism, External:	4.4	
	Parallelism, Internal:	2.7	
	Squareness:	6.2	
	Co-Planer error of Jaws:	10	
	Width of internal jaws:	2.7	
Height gauges	Based on BS 1643:2008 0 to 600		
	Overall performance:	10 + (30 x length in m)	
Depth gauges	Based on BS 6365:2008 0 to 300		
	Overall performance:	10 + (30 x length in m)	
	Flatness / Straightness:	2.8	
	Parallelism:	2.7	
Internal and external dial caliper and thickness gauges	Scale accuracy:		Using procedures MLCP 12 or MLCP 15
	0 to 50	1.6	
	50 to 200	10	
	Parallelism:	1.6	
Dial gauges and dial test indicators	BS 907:2008 and BS 2795:1981 0 to 100	1.0	
Road measuring wheels			Using procedure MLCP 52
Derived calibration factor	0.95 to 1.05	0.0014	
Diameter	200 to 350	0.12 mm	
Circumference	600 to 1050	0.37 mm	
Counter distance	29.9 to 30.1 revolutions	0.030 m	
LENGTH			
Length gauges, flat and spherical ended (excluding length bars)	BS 870:2008 0 to 600	1.0 + (8.0 x length in m)	
Feeler gauges	BS 957:2008 0.03 to 1	1.8	
Steel rules, engineers	0 to 1200	8.0 + (10 x length in metres)	Using procedure MLCP 57

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
PRESSURE CALIBRATION			Methods consistent with EURAMET CG17
Gas pressure (gauge)			
Calibration of pressure indicating instruments and gauges	-90 kPa to 100 kPa 100 kPa to 250 kPa 250 kPa to 2 MPa 2 MPa to 10 MPa	14 Pa 33 Pa 0.33 kPa 1.3 kPa	Using deadweight tester. Comparison with pressure controllers and indicators.
Hydraulic pressure (gauge)			
Calibration of pressure indicating instruments and gauges	0.6 MPa to 6 MPa 6 MPa to 16 MPa 16 MPa to 40 MPa 40 MPa to 70 MPa 70 MPa to 100 MPa	0.020 % 6.8 kPa 61 kPa 0.020 % 78 kPa	Using deadweight tester. Comparison with pressure indicator.
END			

Appendix - Calibration and Measurement Capabilities

Introduction

The definitive statement of the accreditation status of a calibration laboratory is the Accreditation Certificate and the associated Schedule of Accreditation. This Schedule of Accreditation is a critical document, as it defines the measurement capabilities, ranges and boundaries of the calibration activities for which the organisation holds accreditation.

Calibration and Measurement Capabilities (CMCs)

The capabilities provided by accredited calibration laboratories are described by the Calibration and Measurement Capability (CMC), which expresses the lowest measurement uncertainty that can be achieved during a calibration. If a particular device under calibration itself contributes significantly to the uncertainty (for example, if it has limited resolution or exhibits significant non-repeatability) then the uncertainty quoted on a calibration certificate will be increased to account for such factors.

The CMC is normally used to describe the uncertainty that appears in an accredited calibration laboratory's schedule of accreditation and is the uncertainty for which the laboratory has been accredited using the procedure that was the subject of assessment. The measurement uncertainty is calculated according to the procedures given in the GUM and is normally stated as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of $k = 2$. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published measurement uncertainty in certificates issued under its accreditation.

Expression of CMCs - symbols and units

It should be noted that the percentage symbol (%) represents the number 0.01. In cases where the measurement uncertainty is stated as a percentage, this is to be interpreted as meaning percentage of the measurand.
Thus, for example, a measurement uncertainty of 1.5 % means $1.5 \times 0.01 \times q$, where q is the quantity value.

The notation Q[a, b] stands for the root-sum-square of the terms between brackets: $Q[a, b] = [a^2 + b^2]^{1/2}$