Schedule of Accreditation

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RS Calibration
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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	120 µΩ/Ω 33 µΩ/Ω 25 µΩ/Ω 5.0 µΩ/Ω 9 µΩ/Ω 5.0 µΩ/Ω 5.8 µΩ/Ω 11 µΩ/Ω 28 µΩ/Ω 29 µΩ/Ω 39 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 62 µA/A	Using digital multimeter and shunt. Generation of these values may also be undertaken however the uncertainties may be increased.
AC VOLTAGE			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	880 + 2.0	1200 + 2.5	1900 + 4.0	2100 + 8.0	3500 + 8.0
2.2 mV to 7 mV	710 + 1.3	380 + 1.3	260 + 1.3	370 + 2.0	510 + 2.5	980 + 4.0	1200 + 8.0	2800 + 8.0
7 mV to 22 mV	250 + 1.3	180 + 1.3	140 + 1.3	190 + 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.
INDUCTANCE			
Generation	*At 1 kHz:* 1 mH 10 mH 100 mH 1 H	 480 µH/H 480 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:* 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 µF 2 µF 3 µF and 4 µF 5 µF and 9 µF 10 µF to 30 µF 40 µF and 50 µF 60 µF and 80 µF 90 µF and 100 µF	 0.092 % 0.064 % 0.058 % 0.055 % 0.053 % 0.051 % 0.050 % 0.037 % 0.037 % 0.043 % 0.12 % 0.12 % 0.098 % 0.12 % 0.12 % 0.12 % 0.19 % 0.19 %	Known capacitance values for the calibration of capacitance measuring instruments
FREQUENCY			
Measurement	10 Hz to 100 kHz 100 kHz to 1 MHz 1 MHz to 6 GHz	3.0 in 10^9 2.0 in 10^{10} 5.0 in 10^{10}	Using counter timer and off-air standard.
Timer and stopwatch calibrations	5 s to 99 999s	0.10 s	Manual calibration.
Optical Tachometers	25 rpm to 6000 rpm 6000 rpm to 30000 rpm 30000 rpm to 90000 rpm	0.059 rpm 0.084 rpm 0.19 rpm	Using light pulses synchronised to frequencies that correspond to the stated rpm values.
OSCILLOSCOPE CALIBRATION			
Horizontal deflection coefficients	238 ps to 1 µs 1 µs to 10 ms	0.024 µs/s 0.062 µs/s	Using time markers. The uncertainty quoted will be particularly dependent on the horizontal resolution of the oscilloscope being calibrated.
Vertical deflection coefficients	5 mV to 60 mV 60 mV to 600 mV 600 mV to 60 V 60 V to 100 V 100 V to 200 V	0.0079 % 0.0079 % 0.027 % 0.12 % 0.12 %	Using DC Levels and pulse / square waveforms of known amplitude. The uncertainty quoted will be particularly dependent on the vertical resolution of the oscilloscope being calibrated.

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
OSCILLOSCOPE CALIBRATION (continued)			
Bandwidth	*Input VSWR from 1.2:1 to 1.6:1* 50 kHz to 550 MHz 550 MHz to 1 GHz 1 GHz to 1.5 GHz 1.5 GHz to 4.2 GHz	 0.15 dB 0.20 dB 0.31 dB 0.41 dB	Relative to a low frequency reference. 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	Using fast rise pulses. The uncertainty quoted will be dependent on the vertical and horizontal resolution of the oscilloscope being calibrated.
Input resistance (DC)	50 Ω 1 MΩ	0.12 % 0.12 %	For values within 20% of the nominal values shown.
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 -190 °C to -100 °C -100 °C to +1300 °C	0.18 °C 0.11 °C 0.085 °C	
T Type	-150 °C to -100 °C -100 °C to 0 °C 0 °C to 400 °C	0.10 °C 0.081 °C 0.064 °C	
J Type	-100 °C to 0 °C 0 °C to 1000 °C	0.083 °C 0.075 °C	
PT100	-200 °C to -50 °C -50 °C to 200 °C 200 °C to 300 °C 300 °C to 500 °C 500 °C to 600 °C 600 °C to 800 °C	1.4 m°C 2.5 m°C 5.0 m°C 7.4 m°C 10 m°C 11 m°C	By Resistance simulation.

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 600 kΩ 600 kΩ to 5 MΩ 5 MΩ to 8 MΩ 8 MΩ to 40 MΩ 40 M/Ω to 100 M/Ω 100 MΩ to 600 MΩ 600 MΩ to 2 GΩ 2 GΩ to 10 GΩ	0.012 kΩ/Ω 0.69 kΩ/Ω 5.8 kΩ/Ω 0.092 MΩ/Ω 0.46 MΩ/Ω 1.2 MΩ/Ω 7.8 MΩ/Ω 0.025 GΩ/Ω	
Continuity Resistance	50 mΩ to 900 mΩ 900mΩ to 10 Ω 10 Ω to 500 Ω 500 Ω to 50 kΩ	12 mΩ/Ω 0.014 Ω/Ω 0.30 Ω/Ω 1.5 Ω/Ω	
Continuity Current	10 mA 50 mA 100 mA 200 mA 300 mA	0.46 mA/A 0.91 mA/A 1.6 mA/A 3.1 mA/A 4.6 mA/A	
AC Voltage Output	100 V 200 V 240 V 300 V 400 V	0.37 V/V 0.60 V/V 0.69 V/V 0.83 V/V 1.1 V/V	
Insulation Voltage	50 V 100 V 200 V 240 V 250 V 500 V 1000 V	0.68 V/V 1.3 V/V 1.8 V/V 2.4 V/V 3.0 V/V 5.9 V/V 12 V/V	
Current on Insulation resistance function			
1000 V & 500 V range	0.5 mA 1.0 mA	0.016 mA/A 0.021 mA/A	
Loop Resistance *at 50 Hz*	0.33 Ω 0.5 Ω 1 Ω 5 Ω 10 Ω 100 Ω 1000 Ω	0.032 Ω/Ω 0.033 Ω/Ω 0.033 Ω/Ω 0.046 Ω/Ω 0.070 Ω/Ω 0.58 Ω/Ω 5.8 Ω/Ω	
RCD Current *at 50 Hz*	10 mA to 30 mA 30 mA to 300 mA 300 mA to 2 A	0.099 mA/A 0.38 mA/A 3.9 mA/A	
RCD Trip Time	20 ms to 900 ms	0.95 ms/s	

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	1.2 kΩ/Ω 69 kΩ/Ω	
PAT Earth Bond Resistance *at 50 Hz*	0.51 Ω 0.11 Ω 0.18 0.28 Ω 0.41 Ω 0.55 Ω 1 Ω 5.1 Ω 9 Ω 91 Ω 1000 Ω	5.0 mΩ/Ω 5.3 mΩ/Ω 5.7 mΩ/Ω 6.4 mΩ/Ω 7.1 mΩ/Ω 7.9 mΩ/Ω 11 mΩ/Ω 34 mΩ/Ω 57 mΩ/Ω 530 mΩ/Ω 5.2 Ω/Ω	
PAT Earth Bond Current *at 50 Hz*	0 mA to 100 mA 100 mA to 10 A 10 A to 30 A	2.7 mA/A 0.078 A/A 0.22 A/A	
PAT Leakage Current Test	2.7 mA at 240 V 4.7 mA at 240 V 7.7 mA at 240 V	0.038 mA/A 0.084 mA/A 0.14 mA/A	
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 50 ºC to 200 ºC 200 ºC to 500 ºC	0.050 ºC 0.041 ºC 0.051 ºC 0.054 ºC 0.105 ºC 0.284 ºC	Calibration performed within Liquid Baths. Calibration in Dry Block
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 50 ºC to 200 ºC 200 ºC to 500 ºC	0.046 ºC 0.040 ºC 0.12 ºC 0.21 ºC 0.139 ºC 0.489 ºC	Calibration performed within Liquid Baths. Calibration in Dry Block

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	0.14°C to 0.16°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	0.11 °C 0.11 °C 0.11 °C	Calibration performed within an air chamber.
Relative humidity instruments	Example conditions	Corresponding to above dew-point and temperature uncertainties	
	At 10 °C 54 %rh to 95 %rh At 23 °C 24 %rh to 95 %rh At 30 °C 16 %rh to 95 %rh At 60 °C 6 %rh to 57 %rh	0.86 %rh to 1.5 %rh 0.50 %rh to 0.92 %rh 0.50 %rh to 0.87 %rh 0.50 %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:	4.4	
	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)	
	Flatness:	2.7	
	Parallelism:	3.7	
	Depth of Jaw / Scriber:	2.7	
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 51
	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		
	Scale interval measurements:	1.1	
	Discrimination:	1.6	
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	2.2	
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 -3.5 kPa -3.5 kPa to 3.5 kPa 3.5 kPa to 190 kPa 190 kPa to 7 MPa 7 MPa to 10 MPa	0.004 6 % 17 Pa 0.004 6 % 0.007 3 % 1.4 kPa	Using deadweight tester. Using pressure controller Using deadweight tester. Using deadweight tester. Using pressure controller
Gas pressure (absolute)			
Calibration of pressure indicating instruments and gauges	10 kPa to 190 kPa 190 kPa to 7 MPa	0.013 % 0.007 7 %	Using deadweight tester. Using deadweight tester.
Hydraulic pressure (gauge)			
Calibration of pressure indicating instruments and gauges	0.6 MPa to 6 MPa 6 MPa to 70 MPa	0.020 % 0.020 %	Using deadweight tester.
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: $Q[a, b] = [a^2 + b^2]^{1/2}$