


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 0080 Accredited to ISO/IEC 17025:2017	Southern Calibration Laboratories Limited	
	Issue No: 046 Issue date: 31 March 2021	
	Unit 7 Solent Industrial Estate Hedge End Southampton SO30 2FX	Contact: Mr S C Sparks Tel: +44 (0)1489 790296 Fax: +44 (0)1489 790294 E-Mail: info@southcal.co.uk Website: www.southcal.co.uk
Calibration performed by the Organisation at the locations specified		

Locations covered by the organisation and their relevant activities

Laboratory location:

Location details	Activity	Location code
Address Unit 7 Solent Industrial Estate Hedge End Southampton SO30 2FX	Local contact Mr S C Sparks Tel: +44 (0)1489 790296 Fax: +44 (0)1489 790294 E-Mail: info@southcal.co.uk Website: www.southcal.co.uk	Electrical Temperature Dimensional Lab

Site activities performed away from the locations listed above:

Location details	Activity	Location code
The customers' site or premises must be suitable for the nature of the particular calibrations undertaken and will be the subject of contract review arrangements between the laboratory and the customer.	Temperature Humidity	Site



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DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
ELECTRICAL CALIBRATION by comparison with a reference instrument				
DC VOLTAGE				Lab
Specific Values	1.018 V	1.5 μ V	This uncertainty can only be achieved with temperature controlled cells of suitable stability.	
	0.1 V 1 V 10 V 100 V 1 kV	1.9 ppm 0.80 ppm 0.80 ppm 0.80 ppm 0.95 ppm		
Other Values	0 mV to 100 mV 100 mV to 1.1 V 1.1 V to 11 V 11 V to 1 kV 1 kV to 2 kV 2kV to 40kV	0.37 μ V 1.0 μ V 0.77 ppm + 2.4 μ V 0.95 ppm 0.20 % + 0.12 V 0.20 % + 12V		
DC VOLTAGE RATIO	Unity to 10^{-7}	2.6×10^{-7} of input	Input voltage range 1 V to 100 V	Lab
DC RESISTANCE				
Measurement and Generation	0.01 Ω 0.1 Ω 1 Ω 10 Ω 100 Ω 1 k Ω 10 k Ω 100 k Ω 1 M Ω 10 M Ω	28 ppm 7.2 ppm 3.8 ppm 2.9 ppm 2.1 ppm 2.7 ppm 2.6 ppm 4.7 ppm 10 ppm 25 ppm		Lab
Generation only	100 M Ω 1 G Ω 10 G Ω 100 G Ω 1 T Ω	200 ppm 0.45 % 0.45 % 0.75 % 2.75 %		Lab



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DC RESISTANCE (continued)				
Measurement only	0 Ω to 20 Ω 20 Ω to 20 k Ω 20 k Ω to 200 k Ω 200 k Ω to 2 M Ω 2 M Ω to 20 M Ω 20 M Ω to 100 M Ω	110 $\mu\Omega$ 7.0 ppm 10 ppm 15 ppm 20 ppm 300 ppm		Lab
DC CURRENT	0 μ A to 100 μ A 100 μ A to 1 mA 1 mA to 10 mA 10 mA to 100 mA 0.1 A to 1 A 1 A to 10 A 10 A to 100 A 100 A to 1000 A	3.5 ppm + 300 pA 3.5 ppm + 2.5 nA 3.0 ppm + 26 nA 13 ppm + 0.26 μ A 18 ppm + 3.0 μ A 25 ppm + 30 μ A 0.12 % + 2.0 mA 0.15 % + 250 mA	For the calibration of clamp meters only	Lab
Specific Value	100 A	0.032 %		
AC VOLTAGE	<i>10 Hz to 200 kHz</i> 0.9 mV to 3.5 mV 3.5 mV to 10 mV 10 mV to 35 mV 35 mV to 90 mV <i>200 kHz to 500 kHz</i> 0.9 mV to 3.5 mV 3.5 mV to 10 mV 10 mV to 35 mV 35 mV to 90 mV <i>0.5 MHz to 1 MHz</i> 0.9 mV to 3.5 mV 3.5 mV to 10 mV 10 mV to 35 mV 35 mV to 900 mV <i>10 Hz to 30 kHz</i> 90 mV to 100 V 100 V to 1.1 kV 90 mV to 350 mV <i>30 kHz to 200 kHz</i> <i>200 kHz to 500 kHz</i> <i>500 kHz to 1 MHz</i>	0.20 % 0.10 % 0.055 % 0.035 % 0.40 % 0.21 % 0.16 % 0.090 % 0.75 % 0.52 % 0.40 % 0.25 % 60 ppm 80 ppm 200 ppm 450 ppm 0.12 %		Lab



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AC VOLTAGE (continued)	0.35 V to 35 V 30 kHz to 200 kHz	110 ppm		Lab
	0.35 V to 35 V 200 kHz to 500 kHz 500 kHz to 1 MHz	0.040 % 0.11 %		
	35 V to 100 V 30 kHz to 100 kHz	85 ppm		
	1 V to 3.5 V 10 Hz to 20 MHz 20 MHz to 30 MHz	0.65 % 1.3 %		
	50 Hz 1 kV to 2 kV 2 kV to 20 kV	0.40 % + 0.12 V 0.40 % + 12 V		
AC RESISTANCE	50 Hz 0.06 Ω, 0.1 Ω, 0.2 Ω, 0.5 Ω, 1 Ω, 5 Ω 10 Ω, 100 Ω and 1 kΩ	0.60 % + 30 mΩ	For calibration of loop testers	Lab
	50 Hz 0.05 Ω, 0.1 Ω, 0.2 Ω, 0.5 Ω	1.5 %	Earth bond resistance	
AC CURRENT	40 Hz to 3 kHz 1 μA to 2 mA	0.020 % + 50nA		Lab
	40 Hz to 1 kHz 2 mA to 6 mA	0.070 %		
	40 Hz to 10 kHz 6 mA to 10 mA	0.025 %	All other values within this range: 0.060 %	
	18 mA to 30 mA 60 mA to 100 mA 180 mA to 300 mA 600 mA to 1A 1.8 A to 3 A 6 A to 10 A	0.025 % 0.025 % 0.025 % 0.025 % 0.025 % 0.025 %		
	50 Hz 10 A to 100 A	0.15 % + 20 mA		
	50 Hz 100 A to 1000 A	0.30 % + 250 mA	For the calibration of clamp meters only	
Specific Value	100 A	0.12 %		Lab



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FREQUENCY	1 mHz to 10 kHz 10 kHz to 100 MHz	1.0 in 10^7 1.2 in 10^8		Lab
Tachometer calibration	10 RPM to 90000 RPM	0.010 % + 0.005 RPM		Lab
TIME INTERVAL	1 ns to 100 ms 100 ms to 1 s 1 s to 100 s	4 ns 4 in 10^8 1.4 in 10^8	Additional uncertainties may be necessary depending on the specific characteristics of the input waveform.	Lab
Timer and stopwatch calibrations	10 s to 9 999.99s 10 s to 999.99 s 999.99 s to 9 999.99 s	0.15s 0.050 s 0.075 s	Automatic triggering Manual triggering Manual triggering	Lab
IN SUPPORT OF 17 TH AND 18 TH EDITION TEST EQUIPMENT				Lab
RESISTANCE				
Continuity	100 mΩ to 4.99 Ω 5 Ω to 29.9 Ω 30 Ω to 199.9 Ω 200 Ω to 499 Ω 500 Ω to 1.999 kΩ 2 kΩ to 4.99 kΩ 5 kΩ to 10 kΩ	0.30 % + 25 mΩ 0.20 % + 25 mΩ 0.20 % + 25 mΩ 0.20% 0.20% 0.20% 0.20%	2 wire	
	100 mΩ to 4.99 Ω 5 Ω to 29.9 Ω 30 Ω to 199.9 Ω 200 Ω to 499 Ω 500 Ω to 1.999 kΩ 2 kΩ to 4.99 kΩ 5 kΩ to 10 kΩ	0.30 % + 10 mΩ 0.20 % + 10 mΩ 0.20 % + 10 mΩ 0.20% 0.20% 0.20% 0.20%	4 wire	
Insulation	10 kΩ to 999.9 kΩ 1 MΩ to 9.999 MΩ 10 MΩ to 200 MΩ 200 MΩ to 999.9 MΩ 1 GΩ to 10 GΩ 100 GΩ	0.20% 0.30% 0.50% 0.80 % + 6 kΩ 1.30% 4.50%		
Terminal Voltage loaded	0 V to 2 kV > 1 MΩ 0 V to 2 kV < 1 MΩ	1.0 % + 5.0 V 1.0 % + 2 V		
Test Current	1.0 μA to 9.9 mA	1.5 %		



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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Earth Bond Resistance				Lab
Nominal values	25 mΩ, 50 mΩ, 100 mΩ 330 mΩ 500 mΩ 1 Ω 1.8 Ω 5 Ω 10 Ω 18 Ω 50 Ω 100 Ω 180 Ω 500 Ω 1 kΩ 500 Ω	5 mΩ 7 mΩ 8 mΩ 10 mΩ 18 mΩ 30 mΩ 60 mΩ 100 mΩ 300 mΩ 500 mΩ 1.0 Ω 2.5 Ω 5.0 Ω 10.0 Ω		
Earth bond current	25 mA to 30A DC 20 Hz to 400 Hz AC	1.6% + 2mA	Offset may be increased to 0.70 A depending on the load	
Line/Loop Impedance	25 mΩ, 50 mΩ, 100 mΩ 330 mΩ 500 mΩ 1 Ω 1.8 Ω 5 Ω 10 Ω 18 Ω 50 Ω 100 Ω 180 Ω 500 Ω 1 kΩ 500 Ω	5 mΩ 7 mΩ 8 mΩ 10 mΩ 18 mΩ 30 mΩ 60 mΩ 100 mΩ 300 mΩ 500 mΩ 1.0 Ω 2.5 Ω 5.0 Ω 10.0 Ω		
Leakage Current	30 mA to 100 mA	0.40 % + 2.5 uA		
RCD Current	3 to 3 000 mA 3 to 1 500 mA 3 to 600 mA	1.20% 2.30% 5.80%		
RCD Trip time	10 ms to 5 s	0.020 % + 0.25 ms		
Line/Touch Voltage	Nom 250 V	5.0 % + 3 V		



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VOLTAGE				Lab
AC Voltage	40 Hz to 400 Hz 3 V to 30 V 30 V to 100 V 100 V to 300 V 300 to 600 V	0.10 % + 9 mV 0.10 % + 30 mV 0.10 % + 90 mV 0.10 % + 180 mV	Output values for measuring instruments	
DC Voltage	3 V to 30 V 30 V to 150 V 150 V to 600 V	0.10 % + 9 mV 0.10 % + 45 mV 0.10 % + 180 mV		
FREQUENCY	40 Hz to 400 Hz	0.020 %		
DC Voltage	0 V to 10 V 10 V to 100 V 100 V to 1 100 V	0.16 % + 5 mV 0.20 % + 50 mV 0.20 % + 640 mV	For the measurement of electrical outputs	
AC Voltage	20 Hz to 400 Hz 0 V to 10 V (rms) 10 V to 100 V (rms) 100 V to 1 100 V (rms)	0.18 % + 6 mV 0.20 % + 55 mV 0.20 % + 640 mV		
CURRENT				
DC Current	0.1 mA to 300 mA 300 mA to 3 A 3 A to 30 A	0.16 % + 0.15 mA 0.20 % + 1.5mA 0.40 % + 15 mA		
AC Current	20 Hz to 400 Hz 0.1 mA to 300 mA 300 mA to 3 A 3 A to 30 A	0.20 % + 0.17 mA 0.20 % + 1.7mA 0.40 % + 18 mA		
APPARENT POWER				
DC and 20 Hz to 400 Hz	0 kVA to 33 kVA	The sum of the corresponding Voltage and Current uncertainties.		
HiPoT LEAKAGE CURRENT				
DC	0 μ A to 300 μ A 300 μ A to 3 mA 3 mA to 30 mA 30 mA to 300 mA	0.40 % + 2.5 μ A 0.40 % + 2.5 μ A 0.40 % + 2.5 μ A 0.20 % + 170 μ A		



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HiPoT LEAKAGE CURRENT AC	20 Hz to 400 Hz 2.5 μ A to 300 μ A 300 μ A to 3 mA 3 mA to 30 mA 30 mA to 300 mA	0.40 % + 2.5 μ A 0.40 % + 2.5 μ A 0.40 % + 2.5 μ A 0.20 % + 170 μ A		
TEMPERATURE SIMULATION calibration by comparision				
Temperature indicators and simulators: Calibration by electrical simulation			The temperature range of each thermocouple type is limited to values listed in the prevailing ITS 90	
Base metal thermocouples K,J,T and E N	-200 $^{\circ}$ C to -100 $^{\circ}$ C -200 $^{\circ}$ C to -100 $^{\circ}$ C	0.13 $^{\circ}$ C 0.15 $^{\circ}$ C	Excluding UUT internal reference junction.	Lab
K,J,T, E and N	-100 $^{\circ}$ C to 1300 $^{\circ}$ C	0.060 $^{\circ}$ C		
Noble Metal Thermocouples	0 $^{\circ}$ C to 1760 $^{\circ}$ C	0.25 $^{\circ}$ C		
K,J,T and E N	-200 $^{\circ}$ C to -100 $^{\circ}$ C -200 $^{\circ}$ C to -100 $^{\circ}$ C	0.15 $^{\circ}$ C 0.20 $^{\circ}$ C	Including UUT internal reference junction.	Lab
K,J,T, E and N	-100 $^{\circ}$ C to 1300 $^{\circ}$ C	0.15 $^{\circ}$ C		Lab
Noble Metal Thermocouples	0 $^{\circ}$ C to 1760 $^{\circ}$ C	0.70 $^{\circ}$ C		Lab
Resistance thermometer (Pt 100)	-200 $^{\circ}$ C to 420 $^{\circ}$ C 420 $^{\circ}$ C to 850 $^{\circ}$ C	0.015 $^{\circ}$ C 0.018 $^{\circ}$ C		Lab
Calibration of internal reference junctions	15 $^{\circ}$ C to 25 $^{\circ}$ C	0.10 $^{\circ}$ C	The UUT will be stabilised to the prevailing Ambient temperature	Lab
Base metal thermocouple Depending on type	-200 $^{\circ}$ C to +1372 $^{\circ}$ C	0.35 $^{\circ}$ C	Including cold junction compensation	Site
Noble metal thermocouple R and S type	-50 $^{\circ}$ C to +1786 $^{\circ}$ C	0.50 $^{\circ}$ C	Including cold junction compensation	Site
Resistance thermometer (Pt 100)	-200 $^{\circ}$ C to +850 $^{\circ}$ C	0.15 $^{\circ}$ C		Site



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DIMENSIONAL CALIBRATION by comparison with a reference instrument				
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETERS, UNLESS OTHERWISE STATED				
In addition to the items listed other similar items, including parts of measuring instruments and machines, may be calibrated in accordance with the stated CMCs. Where the item or part calibrated is of lower quality due to wear, errors in geometry or form, poor surface texture, or where any other factor that adversely affects the measurement capability, greater uncertainties may be assigned. All linear calibrations can be also be provided in inch units.				
LENGTH				
Plain plug gauges (parallel) cylindrical setting standards, and rollers	Diameter: 1 to 10 10 to 150 150 to 200 200 to 250 250 to 300	0.50 1.0 1.3 1.6 1.9		Lab
Plain ring gauge (parallel) and setting standards	Diameter: 2 to 50 50 to 150 150 to 250 250 to 300	1.5 2.0 3.0 4.0		Lab
Length gauges, flat and spherical setting standards	0 to 575	1.0 + (8.0 x length in m)		Lab
Plain gap gauges (parallel)	As BS 969:2008 0.5 to 100 100 to 200 200 to 300	3.0 5.0 8.0		Lab
Screw plug gauges (parallel) including check and setting plugs	Diameter: 1 to 100	Pitch diameter 3.0	Single start, symmetrical thread forms only.	Lab
Screw ring gauges (parallel)	2.5 to 100 100 to 150	5.0 7.0	Single start, symmetrical thread forms only.	Lab
Screw thread pitch	0.2 to 8	1.5		Lab
Screw thread flank angle	0 ° to 52 °	5.0 minutes of arc		Lab
Graduated rules	As BS 4372:1968 0 to 1000	5.0 + (10 x length in m)		Lab



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LENGTH (continued)				
Parallels	As BS 906:1972 5 to 50 x 100 x 400	Dependent on size and grade 1.5 to 5.0		Lab
Receiver and position gauges, jigs, fixtures	Maximum dimensions 0 to 400 x 200 x 75	Dependent on size and features Minimum per coordinate 3.0 + (20 x length in m)		Lab
ANGLE				
Sine bars and tables	As BS 3064:1978 100 to 300	Linear dimensions 1.0 + (10 x length in m) Overall performance 3 seconds of arc		Lab
Angle plates and box angle plates	As BS 5535:1978 50 to 600	Squareness: 3.0 + (1.0 per 100 mm) Parallelism: 1.0 + (1.0 per 100 mm)	The quoted CMCs are for the departure from flatness, straightness, parallelism, or squareness, i.e. the distance separating the two parallel planes which just enclose the surface under consideration.	Lab
MEASURING INSTRUMENTS AND MACHINES				
Micrometers External	As BS 870:2008 0 to 600	Heads 2.0 between any two points. Setting and extension rods 1.0 + (8.0 x length in m)		Lab
Internal	As BS 959:2008 0 to 1000			Lab
Depth	As BS 6468:2008 0 to 300			Lab
Height setting micrometer	0 to 300	Heads 1.5 Stepped column 2.5 Overall performance 3.0		Lab
Riser blocks for above	150 300	2.5 5.0		Lab
Vernier gauges Caliper	As BS 887:2008 0 to 1000	Overall performance: 10 + (30 x length in m)		Lab



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MEASURING INSTRUMENTS AND MACHINES (continued)				
Calliper gauges including vernier, dial and digital types	As BS EN ISO 13385-1:2011 0 mm to 1000 mm	Overall performance: 10.0 + (7.0 x length in m)		Lab
Height	As ISO13225:2012 BS 1643:2008 (withdrawn) 0 to 1000	Overall performance: 15.0 + (8.0 x length in m)		Lab
Depth	As BS 6365:2008 0 to 600	Overall performance: 10.0 + (30 x length in m)		Lab
Dial gauges and dial test indicators	As BS 907:2008 and BS 2795:1981 0 to 50	1.0		Lab
Bench micrometers	As NPL MOY/SCMI 22 0 to 100	Overall performance 2.0		Lab
Comparators (external)	As BS 1054:1975 250 to 10 000 magnifications	1.0 % of range; minimum 0.20		Lab
Feeler gauges	As BS 957:2008 0.02 to 1	3.0		Lab
Bore Indicators	0 to 150 diameter	Overall performance 5.0		Lab



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TEMPERATURE calibration by comparison with a reference instrument				
Resistance Thermometers	-95 °C to 140 °C 140 °C to 425 °C 425 °C to 660 °C	0.10 °C 0.10 °C 0.17 °C	Calibrating by comparison in a Dry Block	Lab
	0 °C	0.020 °C	Ice point	Lab
Platinum Thermocouples	0 °C to 140 °C 140 °C to 660 °C	1.4 °C 1.1 °C	Calibrating by comparison in a Dry Block	Lab
	660 °C to 1100 °C	2.1 +0.02% of value	Calibrating by comparison in a Furnace	
Base Metal Thermocouples	-95 °C to -50 °C	0.75 °C	Calibrating by comparison in a Dry Block	Lab
	-50 °C to 0 °C 0 °C to 425 °C 425 °C to 660 °C	0.55 °C 0.40 °C 0.75 °C		
	660 °C to 1100 °C	0.75 +0.05% of value	Calibrating by comparison in a Furnace	
Electronic thermometers with sensors	Ranges as for above sensors	as for sensor		Lab
Temperature controlled, incubators, ovens, environmental chambers, fridges/refrigerators, freezers and liquid baths.	-90 °C to -50 °C -50 °C to 0 °C 0 °C to 250 °C	0.90 °C 0.75 °C 0.70 °C	Single and multipoint time dependent temperature profiling, also referred to as spatial temperature surveying or mapping	Site
Temperature indicators and recorders, load probes and monitoring thermometers. Autoclaves oven, liquid baths, freezers fridges etc	0°C -50 °C to 140 °C 140 °C to 400 °C 400 °C to 650 °C 650 °C to 1050 °C	0.020 °C 0.10 °C 0.15 °C 2.3 °C 3.6 °C	Calibrated within various dry block calibrators, ice point equipment or in a chamber. For a customer supplied environment the uncertainty will depend on the stability of the environment.	Site
Time Interval calibration by comparison	0 s to 5400 s	2 s	Relating to the timer functions of chambers and autoclaves	Site



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Relative humidity, calibration by comparison	20 °C to 25 °C 26 %rh to 98 %rh	3.4% of reading +0.5 %rh		Site
	25 °C to 35 °C 20 %rh to 98 %rh	3.3% of reading		
	35 °C to 40 °C 11 %rh to 98 %rh	3.3% of reading		
	40 °C to 85 °C 8 %rh to 88 %rh	3.1% of reading		
Dew Point	0 °C to 82 °C	0.40 °C		Site
Temperature measurement Associated with dew point meter	0 °C to 82 °C	0.40 °C		Site

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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 uncertainty of measurement 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 CIPM-ILAC definition of the CMC is as follows:

A CMC is a calibration and measurement capability available to customers under normal conditions:

- (a) as published in the BIPM key comparison database (KCDB) of the CIPM MRA; or
- (b) as described in the laboratory's scope of accreditation granted by a signatory to the ILAC Arrangement.

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 CMC is calculated according to the procedures given in M3003 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 CMC in certificates issued under its accreditation.

The CMC may be described using various methods in the Schedule of Accreditation:

As a single value that is valid throughout the range.

As an explicit function of the measurand or of a parameter (see below).

As a range of values. The range is stated such that the customer can make a reasonable estimate of the likely uncertainty at any point within the range.

As a matrix or table where the CMCs depend on the values of the measurand and a further quantity.

In graphical form, providing there is sufficient resolution on each axis to obtain at least two significant figures for the CMC.

Expression of CMCs - symbols and units

In general, only units of the SI and those units recognised for use with the SI are used to express the values of quantities and of the associated CMCs. Nevertheless, other commonly used units may be used where considered appropriate for the intended audience. For example, the term "ppm" (part per million) is frequently used by manufacturers of test and measurement equipment to specify the performance of their products. Terms like this may be used in Schedules of Accreditation where they are in common use and understood by the users of such equipment, providing their use does not introduce any ambiguity in the capability that is being described.

When the CMC is expressed as an explicit function of the measurand or of a parameter, this often comprises a relative term (e.g., percentage) and an absolute term, i.e. one expressed in the same units as those of the measurand. This form of expression is used to describe the capability that can be achieved over a range of values. Some examples are shown below. It should be noted that these expressions are *not* mathematical formulae but are instead written in a commonly used shorthand for expressing uncertainties - therefore, for purposes of clarity, an indication of how they are to be interpreted is also provided below.

DC voltage, 100 mV to 1 V: 0.0025 % + 5.0 μ V

Over the range 100 mV to 1 V, the CMC is 0.0025 %·V + 5.0 μ V, where V is the measured voltage.

Hydraulic pressure, 0.5 MPa to 140 MPa: 0.0036 % + 0.12 ppm/MPa + 4.0 Pa

Over the range 0.5 MPa to 140 MPa, the CMC is 0.0036 %·p + (0.12·10⁻⁶·p·10⁻⁶) + 4.0 Pa, where p is the measured pressure in Pa.

It should be noted that the percentage symbol (%) simply represents the number 0.01. In cases where the CMC is stated only as a percentage, this is to be interpreted as meaning percentage of the measured value or indication.

Thus, for example, a CMC of 1.5 % means 1.5 · 0.01 · i, where i is the instrument indication.