Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

0647

Accredited to ISO/IEC 17025:2017

InCal Site Solutions Limited

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Calibration performed by the Organisations at the locations specified below

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address Unit 7A 1 Sloefield Drive Carrickfergus Co Antrim BT38 8GX	**Local contact** Mr R E Hughes Tel: +44 (0)28-9335 9762 Mob: +44 (0)7711644411 E-Mail: jennie@incalsitesolutions.co.uk	Electrical Pressure Temperature	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.	Contact as above	Electrical Pressure Temperature Non-automatic weighing instruments	Site

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
ELECTRICAL				
Values and uncertainties listed below are applicable for the calibration of both measurement instruments and for instruments with an output. The method used is by direct comparison unless otherwise stated in the remarks column.				
DC Voltage				
Measurement	-10 mV to 75 mV 75 mV to 10 V 10 V to 100 V	7.0 µV 0.90 mV 10.0 mV		Lab & Site
Generation	-10 mV to 75 mV 75 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V	7.0 µV 8.0 µV 12.0 µV 0.60 mV 6.0 mV		Lab & Site
DC Current				
Measurement	0 mA to 20 mA 20 mA to 50 mA	4.4 µA 7.5 µA		Lab & Site
Generation	0 mA to 20 mA 20 mA to 50 mA	3.1 µA 5.1 µA		Lab & Site
DC Resistance				
Measurement	5 Ω to 400 Ω 400 Ω to 4 kΩ	0.020 Ω 0.20 Ω		Lab & Site
Generation	5 Ω to 400 Ω 400 Ω to 4 kΩ	0.025 Ω 0.40 Ω		Lab & Site
Electrical calibration of temperature simulators indicators, controllers and recorders for the following sensors:				
Noble metal thermocouples Type R & S	0 °C to 1750 °C	0.8 °C	with cold junction compensation	Lab & Site
Base metal thermocouples Type K Type J Type N Type T	 -200 °C to 1370 °C -210 °C to 1200 °C -200 °C to 1300 °C -200 °C to 400 °C	 0.5 °C 0.5 °C 0.5 °C 0.5 °C	 with cold junction compensation	 Lab & Site
Pt100	-200 °C to 660 °C	0.07 °C		Lab & Site

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
Frequency	1 Hz to 10 MHz	0.011 % + 1 mHz	Periodic time of repetitive waveforms may be expressed in terms of 1/f or as events per unit time such as rpm.	Lab & site
Centrifuges	60 rpm to 60000 rpm	0.012 % + 1 rpm		Lab & Site
Elapsed time	10 s to 10 000 s	0.25 s		Lab & Site
PRESSURE Gas Pressure (gauge)			Calibration of devices with an electrical output may be undertaken.	
Calibration of pressure indicating instruments and gauges	-100 kPa to 0 Pa 0 Pa to 16 kPa 16 kPa to 100 kPa 100 kPa to 700 kPa 700 kPa to 2 MPa 2 MPa to 20 MPa	40 Pa 10 Pa 40 Pa 200 Pa 550 Pa 5.5 kPa	Methods consistent with EURAMET CG17	Lab & Site
Gas Pressure (absolute)				
Calibration of pressure indicating instruments and gauges	0 Pa to 60 kPa 60 kPa to 110 kPa 110 kPa to 700 kPa 700 kPa to 2 MPa 2 MPa to 20 MPa	140 Pa 100 Pa 300 Pa 650 Pa 5.6 kPa		Lab & Site
Hydraulic Pressure (gauge)				
Calibration of pressure indicating instruments and gauges	0 Pa to 70 MPa 70 MPa to 280 MPa	20 kPa 320 kPa		Lab & Site
TEMPERATURE				
Resistance thermometers	-40 °C to +155 °C 155 °C to 250 °C 250 °C to 660 °C	0.045 °C 0.10 °C 0.25 °C		Lab & Site
Temperature indicators and recorders with sensors	-40 °C to +155 °C 155 °C to 250 °C 250 °C to 660 °C	0.045 °C 0.10 °C 0.25 °C		Lab & Site
Self-contained temperature loggers	-35 °C to -20 °C -20 °C to 0 °C 0 °C to 30 °C 30 °C to 50 °C	0.25 °C 0.20 °C 0.15 °C 0.20 °C	Calibration in air Chamber	
Temperature controlled autoclaves, media preparators, ovens, chambers, fridges/refrigerators and freezers (inclusive of associated indicators, controllers and recorders, all with sensors, within the specified parameters and ranges)	-40 °C to 0 °C 0 °C to 10 °C 10 °C to 200 °C 200 °C to 600 °C	0.30 °C 0.25 °C 0.30 °C 1.7 °C	Single and multipoint time dependent temperature profiling, also referred to as spatial temperature surveying or mapping	Lab & Site

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
NON-AUTOMATIC WEIGHING INSTRUMENTS Electronic, single pan (See Notes 1, 2,3 & 4)	200 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g 500 g 1 kg 2 kg 5 kg 10kg 20 kg 40 kg 60 kg	0.013 mg 0.017 mg 0.020 mg 0.027 mg 0.034 mg 0.043 mg 0.059 mg 0.089 mg 0.16 mg 0.42 mg 1.1 mg 2.1 mg 4.2 mg 11 mg 21 mg 42 mg 83 mg 440 mg	NOTES: 1. Weights are available in OIML Class: E2 from 1m g to 100 g, max. grouped load 200 g F1 from 1 g to 20 kg, max. grouped load 40 kg M1 20 kg, max. grouped load 60 kg 2. Other loads within the overall listed range may also be used. 3.The uncertainty is dependent on the performance and scale division of the NAWI. 4. The method of calibration is based on EURAMET CG-18	Site
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: $Q[a, b] = [a^2 + b^2]^{1/2}$