Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

7540

Accredited to ISO/IEC 17025:2017

AeroCal 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 11, Markham Vale Environment Centre, Markham Lane, Markham Vale Chesterfield S44 5HY United Kingdom **Local contact** Paul Adams Tel: +44 (0)114 230 0942 Email: enquiries@aerocal.co.uk	Electrical Temperature	Lab

Site activities performed away from the location 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.	Electrical Temperature	Site

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
ELECTRICAL			Calibrations by comparison with a reference device	Lab & site
Generation				
DC Voltage	-100 mV to +100 mV 100 mV to 5 V 5 V to 30 V	50 µV 2.6 mV 20 mV		
DC Current	0 mA to 20 mA	30 µA		
Measurement				
DC Voltage	-100 mV to 100 mV 100 mV to 1 V 1 V to 10 V	5.0 µV 40 µV 1.0 mV		
DC Current	0 mA to 100 mA	30 µA		
DC Resistance	0 Ω to 200 Ω	20 mΩ		
Electrical calibration of temperature simulators, indicators, controllers and recorders for the following sensors:				
Measurement Base metal thermocouples	-200 °C to 0 °C 0 °C to 1370 °C	0.40 °C 0.40 °C	Including cold junction compensation	
Noble metal thermocouples	200 °C to 600 °C 600 °C to 1700 °C	0.60 °C 0.60 °C	Including cold junction compensation	
Generation Base metal thermocouples	-200 °C to 0 °C 0 °C to 1370 °C	0.75 °C 0.60 °C	Including cold junction Compensation	
Noble metal thermocouples	400 °C to 1600 °C	1.0 °C	Including cold junction Compensation	
TEMPERATURE				
Temperature controlled ovens	-25 °C to 600 °C	1.1 °C	Multipoint time dependent	Lab and
and furnaces, fridges and Freezers, chambers	600 °C to 1000 °C 1000 °C to 1200 °C	1.4 °C 1.8 °C	Temperature profiling, Also referred to as spatial Temperature surveying Or mapping	Site

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
TEMPERATURE continued				
Base Metal Thermocouples (Type K, N, J, T)	0 °C -25 °C to +140 °C	0.10 °C 0.44 °C	Ice point Calibration in vertical Dry block bath	Lab
	100 °C to 600 °C 600 °C to 1000 °C 1000 °C to 1200 °C	0.65 °C 0.89 °C 1.5 °C	Calibration in 3-zone Horizontal furnace	
Base Metal Thermocouples With indicators	-25 °C to +140 °C	0.21 °C	Dry block bath	
Thermocouple extension leads	0 °C to 30 °C	0.20 °C		
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: $Q[a, b] = [a^2 + b^2]^{1/2}$