Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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



Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address Kane House 11 Bessemer Road Welwyn Garden City AL7 1GF	Local contact John Alty Tel: +44 (0)1707 379852 Email: john.alty@kane.co.uk	Gas analysers Indoor air quality analysers Temperature indicators Pressure indicators Temperature simulators	A

Schedule of Accreditation issued by United Kingdom Accreditation Service 2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK		
Kane International Limited		
Issue No: 016 Issue date: 09 May 2024		

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code		
ELECTRICAL			Calibration by comparison with	A		
Electrical calibration of temperature simulators for the following sensors:-						
Type K thermocouple	-50 °C to +1200 °C	0.20 °C	Excluding cold junction			
Cold junction compensation	At ambient temperature	0.30 °C				
Electrical calibration of temperature indicators for the following sensors:-						
Type K thermocouple	-50 °C to +1200 °C	0.50 °C	Including cold junction compensation			
PRESSURE			Methods consistent with EURAMET CG17	A		
Calibration of pressure indicating instruments	3.0 kPa to 2.05 MPa	0.020 %				
GAS ANALYSIS			Calibration by comparison with	A		
Gas analysers	Amount fraction mol/mol	Amount fraction mol/mol	reference gases			
carbon monoxide	0 % to 0.10 %	2.2 % relative + 0.000 20 %				
Oxygen	0 % to 21 %	4.0 % relative + 0.020 %				
carbon dioxide	0 % to 0.25 %	2.5 % relative + 0.006 %				
carbon dioxide	0 % to 0.50 %	2.0 % relative + 0.009 %				
carbon dioxide	0 % to 15 %	4.0 % relative + 0.020 %				
END						

Calibration and Measurement Capability (CMC)



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: $Q[a, b] = [a^2 + b^2]^{1/2}$