


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 8809 Accredited to ISO/IEC 17025:2017	ABB Limited Issue No: 018 Issue date: 22 May 2024	
	Oldends Lane Stonehouse Gloucester GL10 3TA	Contact: Dr Jonathan Farrington Tel: +44 (0) 1453 853449 Fax: +44 (0) 1453 821382 E-Mail: instrument.support@gb.abb.com Website: www.abb.com/measurement

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 Oldends Lane Stonehouse Gloucester GL10 3TA	Local contact Dr Jonathan Farrington Tel: 01453 853449 Fax: 01453 821382 E-Mail: instrument.support@gb.abb.com	Electrical Pressure Temperature	Lab

Site activities performed away from the locations listed above:

Location details	Activity	Location code
Customers' Premises 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 Electrical	Site



8809
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

ABB Limited
Issue No: 018 Issue date: 22 May 2024

Calibration performed by the Organisation at the locations specified

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks	Location Code
ELECTRICAL			All electrical calibrations are performed as a direct comparison against a reference standard unless stated otherwise	Lab
DC Voltage				
Measurement	0 mV to 100 mV 100 mV to 50 V	0.027 mV 4.6 mV	For measurement of instrument outputs	
Generation	0 mV to 100 mV 100 mV to 12 V	0.015 mV 2.7 mV	For the calibration of measuring instruments	
DC Current				
Measurement	0 mA to 100 mA	0.019 mA	For measurement of instrument outputs	
Generation	0 mA to 25 mA	0.0050 mA	For the calibration of measuring instruments	
DC Resistance				
Measurement	0 Ω to 400 Ω 400 Ω to 4 k Ω	0.21 Ω 0.50 Ω	For measurement of instrument outputs	
Generation	0 Ω to 400 Ω 400 Ω to 4 k Ω	0.10 Ω 0.47 Ω	For the calibration of measuring instruments	
Electrical calibration of temperature indicators, controllers and recorders for the following sensors:				
Noble metal thermocouples Type R & S	0 °C to 1768 °C	1.1 °C	with cold junction compensation	
Base metal thermocouples Type K, T, N and J	-200 °C to 0 °C 0 °C to 1370 °C	0.50 °C 0.56 °C	with cold junction compensation	
Pt100	-200 °C to +850 °C	0.15 °C		



8809
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

ABB Limited
Issue No: 018 Issue date: 22 May 2024

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks	Location Code
ELECTRICAL (cont'd)				Site
DC Voltage				
Measurement	0 mV to 100 mV 100 mV to 50 V	0.040 mV 15 mV	For measurement of instrument outputs	
Generation	0 mV to 100 mV 100 mV to 12 V	0.035 mV 4.0 mV	For the calibration of measuring instruments	
DC Current				
Measurement	0 mA to 100 mA	30 μ A	For measurement of instrument outputs	
Generation	0 mA to 25 mA	8.5 μ A	For the calibration of measuring instruments	
DC Resistance				
Measurement	0 Ω to 400 Ω 400 Ω to 4 k Ω	0.30 Ω 1.2 Ω	For measurement of instrument outputs	
Generation	0 Ω to 400 Ω 400 Ω to 4 k Ω	0.15 Ω 1.2 Ω	For the calibration of measuring instruments	
Electrical calibration of temperature indicators, controllers and recorders for the following sensors:				
Noble metal thermocouples Type R & S	0 $^{\circ}$ C to 1768 $^{\circ}$ C	1.9 $^{\circ}$ C	with cold junction compensation	
Base metal thermocouples Type K, T, N and J	-200 $^{\circ}$ C to 0 $^{\circ}$ C 0 $^{\circ}$ C to 1370 $^{\circ}$ C	1.0 $^{\circ}$ C 1.0 $^{\circ}$ C	with cold junction compensation	
Pt100	-200 $^{\circ}$ C to +850 $^{\circ}$ C	0.50 $^{\circ}$ C		
PRESSURE				Lab
Gas Pressure (gauge)			Methods consistent with EURAMET CG17	
Calibration of pressure indicating instruments and gauges	-85 kPa to 0 kPa 0 kPa to 400 kPa 400 kPa to 1.2 MPa 1.2 MPa to 2 MPa	0.58 kPa 0.56 kPa 0.97 kPa 1.01 kPa	Calibration of instruments with an electrical output can be undertaken	



8809
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

ABB Limited
Issue No: 018 Issue date: 22 May 2024

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks	Location Code
TEMPERATURE				Lab
Resistance thermometers	-80 °C to 0 °C Ice point (0 °C) -35 °C to +140 °C 140 °C to 250 °C 250 °C to 450 °C 450 °C to 650 °C	0.68 °C 0.040 °C 0.080 °C 0.24 °C 0.46 °C 0.53 °C	Calibration performed within a Liquid Bath Calibration performed within Metal Block Baths	
Thermocouples	-80 °C to 0 °C Ice point (0 °C) -35 °C to +140 °C 140 °C to 250 °C 250 °C to 450 °C 450 °C to 650 °C 650 °C to 1100 °C 1100 °C to 1200 °C	0.68 °C 0.40 °C 0.45 °C 0.50 °C 0.70 °C 0.80 °C 2.16 °C to 2.44 °C 3.48 °C	Calibration performed within a Liquid Bath Calibration performed within Metal Block Baths	
Temperature indicators and recorders with sensors	-80 °C to 0 °C Ice point (0 °C) -35 °C to +140 °C 140 °C to 250 °C 250 °C to 450 °C 450 °C to 650 °C 650 °C to 1100 °C 1100 °C to 1200 °C	0.68 °C 0.040 °C 0.080 °C 0.24 °C 0.46 °C 0.53 °C 2.0 °C to 2.6 °C 3.0 °C	Calibration performed within a Liquid Bath Calibration performed within Metal Block Baths	
Wireless temperature loggers	-80 °C to 0 °C Ice point (0 °C) -35 °C to +40 °C	0.68 °C 0.085 °C 0.12 °C	Calibration performed within Liquid Baths	
Temperature controlled incubators, ovens, environmental chambers, fridges/refrigerators, freezers, rooms and similar enclosures (inclusive of associated indicators, controllers and recorders, all with sensors, within the specified parameters and ranges)	-80 °C to -40 °C -40 °C to 0 °C 0 °C to 140 °C 140 °C to 250 °C 250 °C to 450 °C 450 °C to 650 °C -30 °C to +40 °C	2.1 °C 1.1 °C 1.7 °C 1.8 °C 2.1 °C 2.2 °C 0.30 °C	Single and multipoint time dependent temperature profiling, also referred to as spatial temperature surveying or mapping Using thermocouples Using PRT sensors or wireless temperature loggers	Site
Resistance thermometers	-35 °C to 0 °C 0 °C to 140 °C 140 °C to 250 °C 250 °C to 450 °C 450 °C to 650 °C	0.45 °C 0.65 °C 0.85 °C 1.5 °C 2.3 °C		Site



8809
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

ABB Limited
Issue No: 018 Issue date: 22 May 2024

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks	Location Code
TEMPERATURE (cont'd) Thermocouples	-35 °C to 0 °C 0 °C to 140 °C 140 °C to 250 °C 250 °C to 450 °C 450 °C to 650 °C	0.80 °C 0.95 °C 1.1 °C 1.7 °C 2.4 °C	Calibration performed within Metal Block Baths	Site
Temperature indicators and recorders with sensors	-35 °C to 0 °C 0 °C to 140 °C 140 °C to 250 °C 250 °C to 450 °C 450 °C to 650 °C	0.45 °C 0.60 °C 0.85 °C 1.5 °C 2.3 °C		Site
END				



8809
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

ABB Limited
Issue No: 018 Issue date: 22 May 2024

Calibration performed by the Organisation at the locations specified

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