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 SJM Controls Ltd 2 Cartier Court Blackwood Lanark ML11 9GN	Local contact Mr Scott MacLean Tel: +44 (0) 7875 396734 E-Mail: scott.maclean@sjmcontrols.co.uk	Electrical	Ρ

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.	Electrical	S

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(≯≮)	2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK					
UKAS	SJM Controls Ltd					
20391	Issue No: 003 Issue date: 10 June 2025					
Accredited to ISO/IEC 17025:2017						
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		
The method followed for all electrical calibrations of both sources and measuring instruments is by direct comparison of the unit under test against laboratory references, unless otherwise stated in the remark's column. All other calibrations are by comparison with reference instruments unless otherwise stated, Generation means that these values can be supplied for the calibration of measuring devices and Measurement means that devices with an output can be calibrated.						
ELECTRICAL						
DC VOLTAGE	0 V 0 to 5 V 5 to 15 V	0.085 mV 0.61 mV 1.8 mV	Measure	P & S		
	0 V 0 to 5 V 5 to 15 V	0.12 mV 0.59 mV 2.6 mV	Generate	P&S		
DC Current	0 to 20 mA 20 to 30 mA	3.8 μΑ 3.6 μΑ	Measure	P & S		
	0 to 20 mA 20 to 22 mA	22 μΑ 24 μΑ	Generate	P & S		
TEMPERATURE SIMULATION						
Temperature indicators, simulators, recorders, controllers and transmitters, calibration by electrical simulation						
Base metal thermocouple Generate and Measure Type J	-100 °C to 0 °C 0 °C to +600 °C	0.63 ℃ 0.61 ℃	including cold junction compensation	P&S		
Туре К	-200 °C to 0 °C 0 °C to +1200 °C	0.66 ℃ 0.62 ℃				
Type N	-200 °C to 0 °C 0 °C to +1300 °C	0.70 ℃ 0.60 ℃				
Туре Т	-200 °C to 0 °C 0 °C to +400 °C	0.67 ℃ 0.67 ℃				
Noble metal thermocouple Generate and Measure Type R Type S	0 °C to 1760 °C 0 °C to 1760 °C	2.8 ℃ 2.8 ℃	including cold junction compensation	P&S		
PT 100 Generate and Measure	-200 °C to 0 °C 0 °C to +600 °C	0.19 ℃ 0.29 ℃		P&S		
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: $Q[a, b] = [a^2 + b^2]^{1/2}$