Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

0832 **Accredited to ISO/IEC 17025:2017**	**MDS Aero Support Ltd** **Issue No:** 019 **Issue date:** 20 March 2024	
	37 Longbridge Lane **Off Ascot Drive** **Derby** **DE24 8UJ**	**Contact: Mr Tim Rennie** **Tel: +44 (0)1332 754180** **Fax: +44 (0)1332 753531** **E-Mail: timothy.rennie@mdsaero.co.uk** **Website: www.mdsaero.com**
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 37 Longbridge Lane Off Ascot Drive Derby DE24 8UJ	**Local contact** Mr Tim Rennie Tel: +44 (0)1332 754180 Fax: +44 (0)1332 753531 Email: timothy.rennie@mdsaero.co.uk Website: www.mdsaero.com	Electrical Pressure	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.	Electrical	Site

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Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (*k* = 2)	Remarks
ELECTRICAL			Electrical calibrations are performed by comparison with a reference standard measuring the output of instruments or generating the output, as stated.
DC Voltage			
Generation	0 V to 100 mV 100 mV to 10 V	0.022 mV 2.0 mV	Lab & Site
Measurement	0 V to 100 mV 100 mV to 1 V 1 V to 10 V	9.0 μV/V + 2.0 μV 8.0 μV/V + 2.1 μV 8.0 μV/V + 16 μV	Lab
	0 V to 200 mV 200 mV to 2 V 2 V to 20 V	110 μV/V + 10 μV 100 μV/V + 20 μV 100 μV/V + 170 μV	Site
DC Resistance			
Measurement	0 Ω to 100 Ω 100 Ω to 1 kΩ 1 kΩ to 100 kΩ 100 kΩ to 1 MΩ	18 μΩ/Ω + 0.60 mΩ 16 μΩ/Ω + 0.60 mΩ 16 μΩ/Ω + 60 mΩ 21 μΩ/Ω + 3.0 Ω	Lab
Generation	100 Ω 150 Ω 2 kΩ 12 kΩ 30 kΩ 200 kΩ	14 mΩ 24 mΩ 0.18 Ω 0.60 Ω 3.8 Ω 5.5 Ω	Lab
PRESSURE			
<u>Gas Pressure (Gauge)</u>			Methods consistent with EURAMET CG17.
Calibration of pressure indicating instruments	-70 kPa to -35 kPa -35 kPa to -6.9 kPa -6.9 kPa to 6.9 kPa 6.9 kPa to 35 kPa 35 kPa to 100 kPa 100 kPa to 350 kPa 350 kPa to 850 kPa 850 kPa to 1.3 MPa 1.3 MPa to 2.2 Mpa 2.2 MPa to 4.5 Mpa 4.5 MPa to 7 MPa	8.0 Pa 11 Pa 2.0 Pa 11 Pa 16 Pa 67 Pa 0.12 kPa 0.14 kPa 0.29 kPa 0.45 kPa 0.70 kPa	Lab
<u>Gas Pressure (Absolute)</u>			
Calibration of pressure indicating instruments	41 kPa to 76 kPa 76 kPa to 117 kPa 117 kPa to 207 kPa	18 Pa 7.0 Pa 18 Pa	Lab

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