

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>UKAS CALIBRATION</p> <p>0031</p> <p>Accredited to ISO/IEC 17025:2017</p>	<h3>Uniper Technologies Limited</h3> <p>Issue No: 033 Issue date: 27 August 2021</p>	
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<p>Calibration performed at the above address only</p>		

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks
<p>FLOW (Water)</p> <p>Volumetric Flow Rate</p> <p>Mass Flow Rate</p> <p>Volume Passed</p>	<p>0.5 l/s to 440 l/s</p> <p>0.5 kg/s to 440 kg/s</p> <p>2,000 litres to 24,000 litres</p>	<p>0.10 %</p> <p>0.05 %</p> <p>0.10 %</p>	<p>Gravimetric System. (Main Rig) Temperature: ambient to 40°C Up to 3 bar static pressure</p>
<p>Volumetric Flow Rate</p> <p>Mass Flow Rate</p> <p>Volume Passed</p>	<p>3 l/s to 140 l/s</p> <p>3 kg/s to 140 kg/s</p> <p>1000 litres to 50,000 litres</p>	<p>0.15 %</p> <p>0.15 %</p> <p>0.15 %</p>	<p>Transfer Standard System. (Intermediate Rig) Temperature: ambient to 48°C Up to 4.2 bar static pressure</p>
<p>Volumetric Flow Rate</p> <p>Mass Flow Rate</p> <p>Volume Passed</p>	<p>0.25 l/min to 500 l/min</p> <p>0.25 kg/min to 500 kg/s</p> <p>2 litres to 1500 litres (at flow rates between 1.5 l/hr and 30,000 l/hr)</p>	<p>0.30 %</p> <p>0.30 %</p> <p>0.23 %</p>	<p>Gravimetric System (Mini Rig) Ambient temperature. Up to 12 bar static pressure</p>
<p>PRESSURE</p> <p>Gas pressure (gauge)</p> <p>Calibration of pressure indicating instruments and gauges</p>	<p>3.4 kPa to 301 kPa</p>	<p>0.015 %</p>	<p>Calibration of devices with an electrical output can be undertaken</p>
<p>END</p>			



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