Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

0260

Accredited to ISO/IEC 17025:2017

Norfolk Calibration Services

Issue No: 032 **Issue date:** 02 August 2022

Community and Environmental Services
Norfolk County Council
69, Hethel Engineering Centre
Chapman Way
Hethel
Norwich
NR14 8FB

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Website: http://www.norfolk.gov.uk/calibration

Calibration performed by the Organisation at the locations specified below

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address Community and Environmental Services Norfolk County Council 69, Hethel Engineering Centre Chapman Way Norwich NR14 8FB	**Local contact** Adrian Chapman	Mass (Weights) Mass (Weighing machines)	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.	Mass (Weighing machines)	Site

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Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
MASS See Notes 1, 2, 3 and 4	Nominal value(g) 25 000 20 000 10 000 5 000 2 000 1 000 500 200 100 50 20 10 5 2 1 0.5 0.2 0.1 0.05 0.02 0.01 0.005 0.002 0.001	(mg) 21 7.0 4.2 2.0 0.70 0.40 0.18 0.080 0.040 0.008 0 0.006 0 0.005 0 0.004 0 0.001 2 0.000 90 0.000 80 0.000 80 0.000 80 0.000 80 0.000 60 0.000 60 0.000 60 0.000 60 0.000 60	1 Intermediate values can be calibrated with an uncertainty equal to that of the next higher nominal value. 2 Calibrations can be given in other units as required. 3 The Calibration and Measurement Capability shown will permit statements of compliance to the Maximum Permissible Errors shown in OIML R111 up to Class F1 at 25kg, up to Class E2 from 20kg to 1mg, and up to Class E1 from 50g to 1mg. 4 Borda's Substitution Method	Lab
NON AUTOMATIC WEIGHING MACHINES See notes 5, 6 and 7 (From 1 mg to 2300 kg)	200 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g 500 g 1 kg 2 kg 2.5 kg 5 kg 10 kg 20 kg 50 kg 75 kg 100 kg 200 kg 500 kg 1000 kg 2000 kg 2300 kg	0.009 2 mg 0.012 2 mg 0.015 mg 0.018 mg 0.023 mg 0.033 mg 0.045 mg 0.074 mg 0.14 mg 0.28 mg 0.69 mg 1.4 mg 2.8 mg 3.5 mg 9.6 mg 19 mg 39 mg 127 mg 166 mg 1.3 g 7.4 g 17 g 35 g 74 g 110 g	5 Methods consistent with EURAMET CG18 6 Weights are available in OIML Class: E2 from 1 mg to 1 kg, max. grouped load 2.5 kg F1 from 1 mg to 20 kg, max. grouped load 75 kg M1 from 500 mg to 20 kg, max. grouped load 2300 kg 7 Other loads within the overall listed range may also be used.	Lab & Site

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