Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

0812

Accredited to ISO/IEC 17025:2017

KROHNE Ltd

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Calibration performed at the above address only

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
FLOW			Gravimetric method
Mass Flow (Water) Quantity passed	5 kg to 20,000 kg (At flow rates of 60 kg/h to 2,000,000 kg/h)	0.035 %	Suitable for Coriolis meters (own manufacture)
	8,000 kg to 20,000 kg (At flow rates of 5,000 kg/h to 2,000,000 kg/h	0.017 %	
Volume flow (Water) Quantity passed	5 l to 20,000 l (At flow rates of 60 kg/h to 2,000,000 kg/h)	0.038 %	Suitable for Coriolis meters (own manufacture)
	8,000 l to 20,000 l (At flow rates of 5,000 kg/h to 2,000,000 kg/h)	0.022 %	
MASS			
Non-Automatic Weighing Instruments (NAWI)	1 kg 2 kg 5 kg	2.8 mg 5.6 mg 14 mg	Applies only to instruments incorporated into the accredited flow facilities.
	10 kg 20 kg 40 kg 50 kg	28 mg 56 mg 140 mg 340 mg	Not offered as a commercial service.
	100 kg 200 kg 500 kg	1.4 g 4.8 g 10 g	Calibration based on EURAMET CG-18.
	1,000 kg 2,000 kg 5,000 kg 6,000 kg	20 g 74 g 270 g 320 g	Reference weights available: F1: 0.1 kg to 20 kg Max grouped weight 40 kg M1: 20 kg to 1,000 kg Max grouped weight 15.25 t Intermediate values can be calibrated but at an appropriate uncertainty which may exceed the value interpolated from the next highest and lowest values."

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
MASS (Cont)			
Non-Automatic Weighing Instruments (NAWI)			
	4,000 kg	260 g	By substitution method
	8,000 kg	560 g	
	12,000 kg	1.2 kg	
	18,000 kg	1.6 kg	
Weight	20 kg	100 mg	By comparator method
TEMPERATURE			
4 wire Platinum resistance thermometers	-40 °C to 0 °C	0.050 °C	Calibrations performed within a dry block calibrator.
	0 °C to 80 °C	0.050 °C	
	80 °C to 155 °C	0.050 °C	Not offered as a commercial service.
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: $Q[a, b] = [a^2 + b^2]^{1/2}$