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

Site activities performed away from the locations listed above:

Location details	Activity	Location code
Customers' sites or premises	Force	S
The customer's sites or premises must be suitable for the nature of the particular calibrations undertaken and will be subject of contract review arrangements between the laboratory and the customer		

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	MTS Systems Ltd
8182 Accredited to ISO/IEC 17025:20017	Issue No: 016 Issue date: 13 August 2021
	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	
FORCE					
UNIVERSAL MATERIAL TESTING MACHINE				S	
Verification and calibration of the force measuring system by force proving instruments in tension	From 50N up to 16.5 MN for Class 0.5, 1, 2 and 3 machines to BS EN ISO 7500-1:2018	0.25%			
	From 50N up to 250 kN To ASTM E4-16	0.25%		S	
Verification and calibration of the force measuring system by force proving instruments in compression	From 50 N up to 16.5 MN for Class 0.5, 1, 2 and 3 machines to BS EN ISO 7500-1:2018	0.25%			
	From 50N up to 250 kN To ASTM E4-16	0.25%		S	
Verification and calibration of the force measuring system by calibrated masses in tension and compression	0.10 N to 110 N for Class 0.5, 1, 2 and 3 machines to BS EN ISO 7500-1:2018	0.10%		S	
	0.10 N to 110 N To ASTM E4-16	0.10%			
LENGTH				S	
Testing machine cross head and actuator displacement by use of	0.05 mm to 50 mm	0.028 mm			
	50 mm to 500 mm	0.066 mm			
EXTENSOMETRY					
Extensometers by use of linear encoders	As BS EN ISO 9513:2012 for the following classes and gauge lengths:	2.8 μm		S	
	Class 0.5 from 4 mm Class 1 from 2 mm Class 2 from 1 mm				

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UKAS CALIBRATION	MTS Systems Ltd				
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Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code	
EXTENSOMETRY Cont'd					
Extensometers	As ASTM E83-16 for the following classes and gauge lengths:	2.8 μm		S	
	B-1 from 4 mm B-2 from 2 mm C from 1 mm				
	Displacements				

END

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