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Expiration Date September 1, 2026
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Accredited to ISO/IEC 17025:2017 *Effective Date February 12, 2025*

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Dimensional			
Calipers Vernier Digital	 0 mm to 500 mm 0 mm to 300 mm	 15 µm 8 µm	Procedure CAMS.WI.007 based on BS 887:2008 Gauge Blocks, Grade “0”
Dial Gauges (Mechanical and Electronic)	0 mm to 25 mm	5 µm	Dial Calibration tester Procedure CAMS.WI.009 based on BS 907:2008 and ASME B89.1.10M-2001 Gauge Blocks, Grade “0” or Calibration Testers
Micrometers Mechanical Digital	 0 mm to 200 mm 0 mm to 400 mm 0 mm to 200 mm	 7 µm 31 µm 6 µm	Procedure CAMS.WI.012 Based on BS EN ISO 3611:2010 Gauge Blocks, Grade “0”
Steel Rulers	0 m to 1 m	1 mm	Procedure CAMS.WI.011 Reference Rule Based on BS 4372:1968
Feeler Gauges	0.01 mm to 1 mm	3 µm	Procedure CAMS.WI.023 based on BS 957:2008
Mechanical			
Scales and Balances	Up to 40 g Up to 520 g Up to 6 kg Up to 10 kg Up to 30 kg	0.1 mg 0.3 mg 31 mg 0.46 g 3 g	Procedure CAMS, WI 001 based on ASTM E898−20 E2 Class Reference weights F1 Class Reference weights M1 class reference weights Combination of F1 & M1 Class

** If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 “Guide for the Use of the International System of Units (SI)” apply.*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Mechanical Micropipette	0 µL to 10 µL 10 µL to 100 µL 20 µL to 200 µL 100 µL to 1000 µL 1000 µL to 5000 µL	0.07 µL 0.18 µL 0.20 µL 1.2 µL 2.0 µL	Procedure CAMS.WI.022 based on BS EN ISO 4787:2011, ISO 8655-6:2002 and ISO 8655-2:2002 0.01mg (10µg) resolution Analytical Balance
Autoclave Pressure (gauge)	0 bar to 2 bar	0.01 bar	Procedure CAMS.WI.005 Using K Type Thermocouples Procedure, Digital Thermometers Using Digital Pressure Sensors
Thermal			
Thermocouples K Type N Type	 -20 °C to 250 °C 250 °C to 1000 °C 420 °C to 1000 °C	 0.09 °C 1.2 °C 2.5 °C	CAMS.WI.002 ASTM E1-14 Isotech SPRT and Digital Temperature Indicator
Liquid in Glass Thermometers and Digital Thermometers	-20 °C to 220 °C	0.06 °C	Procedure CAMS.WI.002 based on ASTM E77-14 Isotech SPRT and Digital Temperature Indicator
Liquid in Glass Thermom-eters (Dual Scale with 0.05 °C resolution)	-0.3 °C to +0.3 °C 38.6 °C to 41.4 °C	0.04 °C 0.04 °C	Procedure CAMS.WI.002 based on ASTM E77-14 Isotech SPRT and Digital Temperature Indicator milliK
Bi-metallic thermometers	-30 °C to 220 °C	1 °C	Procedure CAMS.WI.002 based on ASTM E77-14 Isotech SPRT and Digital Temperature Indicator milliK
Ambient temperature sensors for freezers, chillers, etc.	-20 °C to 5 °C	2 °C	Procedure CAMS.WI.007 Refrigerator Freezer
Ambient Temperature Sensor	25 °C	0.18 °C	Procedure CAMS.WI.006 Thermohygrometer, Humidity chamber
Ovens	40 °C to 250 °C	0.50 °C	Procedure CAMS.WI.003 K Type Thermocouples and Digital Thermometers
Furnaces	500 °C to 1000 °C	2.1 °C	Procedure CAMS.WI.003 K type thermocouples
Infrared Thermometers	-20 °C to 220 °C	0.6 °C	Procedure CAMS.WI.016 Isotech SPRT and Digital Temperature Indicator

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Liquid Baths	-10 °C to 100 °C	0.17 °C	Procedure CAMS.WI.003 K Type Thermocouples and Digital Thermometers
Incubators	15 °C to 65 °C	0.19 °C	Procedure CAMS.WI.003 Using K Type Thermocouples and Digital Thermometers
Autoclave Temperature	100 °C to 140 °C	0.25 °C	Procedure CAMS.WI.005 Using K Type Thermocouples Procedure, Digital Thermometers
Refrigerators	-20 °C to 20 °C	1 °C	Procedure CAMS.WI.003 Using K Type Thermocouples and Digital Thermometers
Walk-in-Chiller	0 °C to 8 °C	1.3 °C	Procedure CAMS.WI.003 Us- ing Digital Thermometers
Walk-in-Freezer	-20 °C to -10 °C	1.4 °C	Procedure CAMS.WI.003 Us- ing Digital Thermometers
HumidityGenerate[3]	20 %RH to 70 %RH (16 °C to 24 °C)	0.94 %RH	Procedure CAMS.WI.007 Hygrometer, Humidity Cham- ber
Time and Frequency			
Stop Watches	0 min to 5 min 0 min to 60 min	0.35 s 0.6 s	Procedure CAMS.WI.005 NIST Internet Time Service
Tachometer	60 rpm to 10020 rpm	10.9 rpm	Procedure CAMS.WI.032 based on ASTM F2046−00 FLUKE Multi-function calibrator 743B
Centrifuge speed	60 rpm to 20,000 rpm	5 rpm	Procedure CAMS.WI.021 Digital Tachometer

[1]The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

[2]When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

[3]Capability is suitable for the calibration of measuring devices in the stated ranges.