



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ENDRESS+HAUSER CANADA LTD.
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CALIBRATION

Valid To: June 30, 2024

Certificate Number: 3597.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 5}:

I. Fluid Quantities

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Liquid Flow (Water) – Flowmeter ³ :			
Mass Flowrate	Up to 1000 kg/min	0.24 %	Portable flow rig with Coriolis master meters 83F08, 83F25, 83F50, 8Q3B25, 8Q3B50
Volumetric Flowrate	Up to 1000 l/min	0.25 %	

II. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Vacuum/Pressure ³ – Gauges and Transducers			Beamex MC6
Pneumatic, Gauge Pressure	(-160 to 160) inH ₂ O (-15 to 30) psi	0.12 inH ₂ O 0.010 psi	w/ EXT400mc w/EXT2C

Parameter/Equipment	Range	CMC ² (±)	Comments
Vacuum/Pressure ³ – Gauges and Transducers (cont)			Beamex MC6
Pneumatic, Gauge Pressure	(-15 to 300) psi	0.11 psi	w/EXT20C
	(0 to 1500) psi	0.79 psi	Fluke 72x/75x w/ 700P09

III. Thermodynamic

Parameter/Equipment	Range	CMC ² (±)	Comments
Temperature ³ – RTD Thermometers	(-30 to 150) °C	0.16 °C	Beamex MC6-T field calibrator & dry-block with precision RTD temperature probe
	(50 to 350) °C	0.16 °C	Beamex FB660 dry-block used for ranges > 150 °C

IV. Chemical

Parameter/Equipment	Range	CMC ² (±)	Comments
pH ³	(1 to 14) pH	0.03 pH	Calibrations performed using ISO 17034 certified standards Cole Parmer certified standards

Parameter/Equipment	Range	CMC ² (±)	Comments
Conductivity ³	100 µS/cm to 200 000 µS/cm	3 µS/cm	Conductivity: 100 µS/cm
		8 µS/cm	1000 µS/cm
		110 µS/cm	10 000 µS/cm
		800 µS/cm	100 000 µS/cm
		1200 µS/cm	200 000 µS/cm

¹ This laboratory offers commercial calibration and field calibration services, where noted.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g., resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

⁴ In the statement of CMC, the value is defined as the percentage of reading, unless otherwise noted.

⁵ This scope meets A2LA's *P112 Flexible Scope Policy*.



Accredited Laboratory

A2LA has accredited

ENDRESS+HAUSER CANADA LTD.

Ontario, CANADA

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).



Presented this 13th day of June 2022.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3597.01
Valid to June 30, 2024

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.