

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CAMPBELL SCIENTIFIC (CANADA) CORPORATION 14532 - 131 Ave. NW Edmonton, Alberta, CANADA T5L 4X4

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CALIBRATION

Valid To: July 31, 2025 Certificate Number: 4227.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 3}:

I. Electrical — DC/Low Frequency

| Parameter/Equipment | Range | CMC ^{2, 4} (±) | Comments |
|-----------------------|---|---|----------------|
| DC Voltage – Generate | (0 to 110) mV >110 mV to 1.11 V (>1.11 to 11.1) V (>11.1 to 110.9) V | $\begin{array}{c} 0.011~\mu V/mV + 2.6~\mu V \\ 0.011~\mu V/mV + 5.4~\mu V \\ 0.013~mV/V + 0.023~mV \\ 0.016~mV/V + 0.24~mV \end{array}$ | Krohn-Hite 523 |
| DC Voltage – Measure | (0 to 120) mV >120 mV to 1.2 V (>1.2 to 12) V (>12 to 120) V | $\begin{array}{c} 0.0049~\mu V/mV + 0.51~\mu V \\ 0.0035~\mu V/mV + 2.3~\mu V \\ 0.0034~mV/V + 0.021~mV \\ 0.0057~mV/V + 0.22~mV \end{array}$ | Keysight 3458A |
| DC Current – Measure | (0 to 1.2) mA (>1.2 to 12) mA (>12 to 120) mA | 0.02 μA/mA + 0.011 μA 0.019 μA/mA + 0.14 μA 0.019 μA/mA + 2.1 μA | Keysight 3458A |

II. Optical Quantities

| Parameter/Equipment | Range | CMC ^{2, 5, 6} (±) | Comments |
|-------------------------------------|------------------|----------------------------|------------|
| Irradiance – Measuring Equipment | (285 to 3000) nm | 0.97 % | SR30-M2-D1 |

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III. Thermodynamic

| Parameter/Equipment | Range | CMC ^{2, 4} (±) | Comments |
|---|-----------------|-------------------------|------------------------------------|
| Relative Humidity – Humidity Sensors/ Probes at 23 °C | (10 to 85) % RH | 0.011 % + 0.11 % RH | Using chilled mirror hygrometer |

IV. Time & Frequency

| Parameter/Equipment | Range | CMC ^{2, 5} (±) | Comments |
|----------------------|--------------------------------------|--|-----------------------|
| Frequency – Generate | 1 Hz to 300 kHz | 29 mHz/kHz + 0.92 mHz | BK Precision 4054B |
| Frequency – Measure | (10 to 40) Hz (>40 to 300 000) Hz | 7.5 μ Hz/Hz + 0.19 mHz 7.8 μ Hz/Hz + 0.49 mHz | Agilent 53220A |

¹ This laboratory offers commercial calibration service.

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

⁴ The stated measured values are determined using the indicated instrument (see Comments). This capability is suitable for the calibration of the devices intended to measure or generate the measured value in the ranges indicated. CMCs are expressed as either a specific value that covers the full range or as a percent or fraction of the reading plus a fixed floor specification.

⁵ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.

⁶ In the statement of CMC, percentage (%) refers to percent of reading, unless otherwise noted.



Accredited Laboratory

A2LA has accredited

CAMPBELL SCIENTIFIC (CANADA) CORPORATION

Alberta, 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 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 17th day of July 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4227.01

Valid to July 31, 2025