



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
& ANSI/NCSL Z540-1-1994

WEED INSTRUMENT CO., INC d.b.a
ULTRA ELECTRONICS, ENERGY
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Round Rock, TX 78680
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CALIBRATION

Valid To: December 31, 2021

Certificate Number: 2931.01

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. Thermodynamics

Parameter/Equipment	Range	CMC ² (±)	Comments
Temperature, RTD's – Measuring Equipment	-196 °C (Liquid Nitrogen) (-80 to 0) °C 0 °C (Ice Point) (0 to 300) °C (300 to 400) °C (400 to 550) °C (550 to 660) °C	0.20 °C 0.10 °C 0.014 °C 0.028 °C 0.029 °C 0.039 °C 0.13 °C	SPRT
Temperature, Thermocouple – Measuring Equipment			
Type B Thermocouple	(538 to 1093) °C (1093 to 1482) °C	0.8 °C 2.0 °C	Type S or R secondary standard thermocouple and ISO-CAL 9000+ calibrator
Type C Thermocouple	(0 to 538) °C (538 to 1093) °C (1093 to 1482) °C	0.6 °C 0.8 °C 2.0 °C	

Parameter/Equipment	Range	CMC ² (±)	Comments
Temperature, Thermocouple – Measuring Equipment (cont)			
Type E Thermocouple	-79 °C 0 °C (38 to 538) °C (538 to 871) °C	0.3 °C 0.2 °C 0.6 °C 0.7 °C	RTD and Martel 3001 calibrator Type S or R secondary standard thermocouple and ISO-CAL 9000+ calibrator
Type J Thermocouple	-79 °C 0 °C (38 to 538) °C (538 to 871) °C	0.3 °C 0.2 °C 0.6 °C 0.7 °C	
Type K Thermocouple	-79 °C 0 °C (38 to 538) °C (538 to 1093) °C (1093 to 1260) °C	0.3 °C 0.2 °C 0.6 °C 0.8 °C 1.4 °C	
Type N Thermocouple	-79 °C 0 °C (38 to 538) °C (538 to 1093) °C (1093 to 1260) °C	0.3 °C 0.2 °C 0.6 °C 0.8 °C 1.4 °C	
Type R Thermocouple	(0 to 538) °C (538 to 1093) °C (1093 to 1482) °C	0.6 °C 0.8 °C 2.0 °C	
Type S Thermocouple	(0 to 538) °C (538 to 1093) °C (1093 to 1482) °C	0.6 °C 0.8 °C 2.0 °C	
Type T Thermocouple	-79 °C 0 °C (38 to 400) °C	0.3 °C 0.2 °C 0.6 °C	
Secondary Standard Type R Thermocouple	(0 to 538) °C (538 to 1093) °C (1093 to 1482) °C	0.4 °C 0.4 °C 1.8 °C	
Secondary Standard Type S Thermocouple	(0 to 538) °C (538 to 1093) °C (1093 to 1482) °C	0.4 °C 0.4 °C 1.8 °C	Type R primary standard thermocouple and ISO- CAL 9000+ calibrator

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability Uncertainties (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*.



Accredited Laboratory

A2LA has accredited

WEED INSTRUMENT CO., INC.

Round Rock, TX

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 ANSI/NCSL Z540-1-1994 and 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 2nd day of January 2020.

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

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2931.01
Valid to December 31, 2021

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