



THE AMERICAN ASSOCIATION FOR  
LABORATORY ACCREDITATION

## ACCREDITED LABORATORY

A2LA has accredited

### INDUSTRONICS SERVICE COMPANY

South Windsor, CT

for technical competence in the field of **Calibration**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and any additional program requirements in the field of calibration. 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 18 June 2005*).

Presented this 31<sup>st</sup> day of July 2007.

A handwritten signature in black ink, appearing to read "Peter Meyer", written over a horizontal line.

President

For the Accreditation Council

Certificate Number: 1619.01

Valid to: July 31, 2009



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

$\Omega$ Pt 3926, 100 $\Omega$ PtNi 672, 120 $\Omega$	-200 °C to 800 °C -200 °C to 630 °C -80 °C to 260 °C	0.8 °C 0.5 °C 0.3 °C	Fluke 701,702, 743

Parameter/Equipment	Range	Best Uncertainty <sup>2,3</sup> (±)	Comments
Electrical Calibration of Thermocouple Indicating Devices –			Fluke 701,702, 743
Type E	-250 °C to 1000 °C	1.5 °C	
Type N	-200 °C to 1300 °C	1.2 °C	
Type J	-210 °C to 1200 °C	0.8 °C	
Type K	-200 °C to 1372 °C	1.0 °C	
Type T	-250 °C to 400 °C	1.9 °C	
Type B	600 °C to 1820 °C	1.5 °C	
Type R & S	0 °C to 1767 °C	1.7 °C	
Type C	0 °C to 2316 °C	2.2 °C	

## II. Mechanical

Parameter/Equipment	Range	Best Uncertainty <sup>2,3</sup> (±)	Comments
Pressure – Measure	(100 to 1500) psi (15 to 100) psi (1 to 15) psi (0 to 1) psi	0.8 psi 0.05 psi 0.008 psi 0.003 psi	Fluke 700 w/ module: 700P09 700P06 700P04 700P02
Vacuum – Measure			
Furnaces	Atmosphere to 10 <sup>-2</sup> torr	2.7 % of reading	Leybold IT23 display with an Leybold IR090
Vacuum Systems	(10 <sup>-2</sup> to 10 <sup>-6</sup> ) torr	6.8 % of reading	Ion gauge

### III. Chemical

Parameter/Equipment	Range	Best Uncertainty <sup>2,3</sup> (±)	Comments
pH	(4, 7, 14) pH units	0.05 pH units	Buffers at 4, 7, and 10 pH
Oxygen Reduction Potential  Fixed Points	200 mV 600 mV	10 mV 20 mV	ORP test solutions

### IV. Thermodynamic

Parameter/Equipment	Range	Best Uncertainty <sup>2</sup> (±)	Comments
Temperature – Measure and Generate	32 °F to 2200 °F	1.8 °F	Type S thermocouple measurement system
	-130 °F to 787 °F	1.5 °F	Type T thermocouple measurement system and dry well furnace
	788 °F to 2200 °F	1.8 °F	Type S thermocouple measurement system and dry well furnace
Humidity Dew point and Relative Humidity	-100 °F to 32 °F 33 °F to 60 °F	0.63 °F 0.5 °F	General Eastern M4-RH hygrometer

## V. Time & Frequency

Parameter/Equipment	Range	Best Uncertainty <sup>2,3</sup> ( $\pm$ )	Comments
Time Elapsed	1 min to 1 hr	0.2 s	Radio Shack 635016 digital Stopwatch

---

<sup>1</sup> This laboratory offers commercial and on-site calibration service.

<sup>2</sup> “Best Uncertainty” 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 of nearly ideal measuring equipment. Best uncertainties represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of  $k = 2$ . The best uncertainty of a specific calibration performed by the laboratory may be greater than the best uncertainty due to the behavior of the customer’s device, to the environment and to influences from the circumstances of the specific calibration.

<sup>3</sup> On-site calibration service is available for this calibration. The uncertainties achievable on a customer's site can normally be expected to be larger than the Best Measurement Capabilities (BMC) that the accredited laboratory has been assigned as Best Uncertainty 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 uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the calibration uncertainty being larger than the BMC.