



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

CARLIN AUTOMATION, INC.  
 1725 20<sup>th</sup> Street  
 Rock Island, IL 61201  
 Patrick Carlin Phone: 309 788 1275

CALIBRATION

Valid To: February 28, 2018

Certificate Number: 1675.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1</sup>:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Electrical Calibration of Thermocouple Indicators <sup>3</sup> –			
Type B	600 °C to 1800 °C	1.9 °C	Multi-function calibrator Fluke 725 in accordance with AMS 2750E
Type C	0 °C to 1800 °C	1.7 °C	
Type E	-196 °C to 950 °C	0.9 °C	
Type J	0 °C to 750 °C	0.6 °C	
Type K	0 °C to 1250 °C	0.8 °C	
Type N	0 °C to 1300 °C	0.8 °C	
Type R	0 °C to 1750 °C	1.3 °C	
Type S	0 °C to 1750 °C	1.3 °C	
Type T	-200 °C to 400 °C	0.8 °C	
Electrical Calibration of Temperature Recorders <sup>3</sup> –			
Type B	600 °C to 1800 °C	1.9 °C	Multi-function calibrator Fluke 725 in accordance with AMS 2750E
Type C	0 °C to 1800 °C	1.7 °C	
Type E	-196 °C to 950 °C	0.9 °C	
Type J	0 °C to 750 °C	0.6 °C	
Type K	0 °C to 1250 °C	0.8 °C	
Type N	0 °C to 1300 °C	0.8 °C	
Type R	0 °C to 1750 °C	1.3 °C	
Type S	0 °C to 1750 °C	1.3 °C	
Type T	-200 °C to 400 °C	0.8 °C	

Parameter/Equipment	Range	CMC <sup>2,4</sup> (±)	Comments
DC Current <sup>3</sup> – Measure and Generate	(0 to 20) mA	0.1 mA	Multi-function calibrator Fluke 725
DC Voltage <sup>3</sup> – Measure and Generate	(900 to 1300) mV	0.9 mV	Multi-function calibrator Fluke 725

## II. Thermodynamics

Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Ovens <sup>3</sup> – Temperature Uniformity  Type K	0 °C to 1250 °C	1.1 °C	Data recorder and thermocouple reference probes in accordance with AMS 2750E

<sup>1</sup> This laboratory offers commercial calibration service and field calibration service.

<sup>2</sup> 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 of 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.

<sup>3</sup> Field calibration service is available for this calibration and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. 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 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.

<sup>4</sup> 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. CMC's 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.

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## *Accredited Laboratory*

A2LA has accredited

**CARLIN AUTOMATION, INC.**

*Rock Island, IL*

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 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 8 January 2009).



Presented this 23<sup>rd</sup> day of February 2016.

A handwritten signature in black ink, written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 1675.01  
Valid to February 28, 2018  
Revised January 19, 2018

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