



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

INDUSTRIAL SYSTECH LTD.  
139 Devon Road, Unit 5  
Brampton, ON L6T 5L8  
Dean DiMarco Phone: 905 791 7724

CALIBRATION

Valid To: June 30, 2019

Certificate Number: 4947.01

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
DC Voltage – Measure	(0 to 10) V	8.3 mV	Multifunction calibrator
Electrical Simulation of Thermocouples –			
Type K	(-178 to 1200) °C	0.62 °C	Multifunction calibrator
Type N	(-178 to 1200) °C	0.61 °C	
Type J	(-18 to 700) °C	0.5 °C	
Type T	(-200 to 350) °C	0.41 °C	
Type S	(0 to 1200) °C	0.65 °C	

Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Electrical Simulation of Thermocouples –			
Type K	(-178 to 1200) °C	0.85 °C	Thermocouple calibrator
Type N	(-178 to 1200) °C	0.87 °C	
Type J	(-18 to 700) °C	0.77 °C	
Type T	(-200 to 350) °C	0.71 °C	
Type S	(0 to 1200) °C	1 °C	

## II. Mechanical

Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Pressure – Hydraulic	(10 to 999) psig (1000 to 9999) psig (10 000 to 16 000) psig	0.8 psi 1.6 psi 3.0 psi	Dead weight calibrator
Pressure – Pneumatic	(2 to 60) psig (60 to 300) psig (300 to 600) psig	0.28 psi 0.31 psi 0.38 psi	Dead weight calibrator
Pressure – Hydraulic and Pneumatic <sup>3</sup>	(0 to 14.49) psig (0 to 100) psig (0 to 300) psig (0 to 1000) psig (0 to 10 000) psig	0.0025 psi 0.020 psi 0.086 psi 0.26 psi 7.8 psi	Pressure calibrator
Pressure Gage Transducers <sup>3</sup>	(0.5 to 30) psia	0.2 psia	Pressure gage, pressure/vacuum pump
Vacuum Gage Transducers <sup>3</sup>	(0 to 28.8) in·Hg	0.2 in·Hg	Vacuum gage/pump



### III. Thermodynamics

Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Thermocouples –			
Type J	(0 to 700) °C	1.3 °C	Tube furnace, Type S thermocouple data acquisition system
Type K	(0 to 1100) °C 1200 °C	1.4 °C 1.9 °C	
Type N	(0 to 1100) °C 1200 °C	1.4 °C 1.9 °C	
Type S	(0 to 1100) °C 1200 °C	1.5 °C 2 °C	
Temperature Sensor/Digital Thermometers <sup>3</sup>	(-70 to 25) °C (-40 to 140) °C (140 to 420) °C	0.14 °C 0.18 °C 0.26 °C	Metal block, cal bath PRT sensor, Hart 1560, 3560 SPRT module
Humidity – Generate <sup>3</sup>	(15 to 95) % RH	1.6 % RH	Humidity chamber and thermo-hygrometer
Temperature System Checks <sup>3</sup> (System Accuracy Tests)	Type K or Type N (100 to 1100) °C	2.2 °C	Thermocouple calibrator, thermocouple
Temperature System Checks <sup>3</sup> (System Accuracy Tests)	(-40 to 220) °C	0.85 °C	Process calibrator, RTD
Temperature Uniformity Survey <sup>3</sup>	Type K or Type N (50 to 1200) °C	1.3 °C	Data logger, thermocouples

<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 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.

<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 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.

A handwritten signature in black ink, appearing to be 'L. L. L.', located at the bottom center of the page.



## Accredited Laboratory

A2LA has accredited

### INDUSTRIAL SYSTECH LTD

*Brampton, Ontario, CANADA*

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 *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 3<sup>rd</sup> day of August 2018.

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

President and CEO  
For the Accreditation Council  
Certificate Number 4947.01  
Valid to June 30, 2019

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