



# CERTIFICATE OF ACCREDITATION

**ANSI-ASQ National Accreditation Board**

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

**Heraeus Electro-Nite Co.,LLC**  
**541 S. Industrial Drive**  
**Hartland, WI 53029**

has been assessed by ANAB  
and meets the requirements of international standard

**ISO/IEC 17025:2005**

while demonstrating technical competence in the field of

**CALIBRATION**

Refer to the accompanying Scope of Accreditation for information regarding the types of calibrations to which this accreditation applies.

AC-1294

Certificate Number

  
ANAB Approval

Certificate Valid: 03/15/2017-05/27/2018  
Version No. 003 Issued: 03/15/2017



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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 January 2009).



# ANSI-ASQ National Accreditation Board

## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005 AND ANSI/NCSL Z540-1-1994

### Heraeus Electro-Nite Co., Inc.

541 S. Industrial Drive  
Hartland, WI, 53029  
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Email: lynn.zelten@heraeus.com Website: www.heraeus-electro-nite.com

### CALIBRATION

Valid to: May 27, 2018

Certificate Number: AC-1294

#### Electromagnetic - DC/Low Frequency

Parameter/ Equipment	Range	Calibration and Measurement Capability [Expressed as Uncertainty ( $\pm$ )]	Reference Standard or Equipment
DC Voltage - Measure	Up to 1 V	6.1 $\mu$ V	HP 34420A
DC Voltage – Measure <sup>2</sup>	(-180 to 200) mV	0.12 mV	Checkmate IV CX
DC Current - Measure	Up to 30 mA	1.5 $\mu$ A	Wahl C75
Electrical Simulation of Temperature Measuring Systems  Type B	(900 to 3 300) °F IPTS 48 (900 to 3 300) °F IPTS 68 (900 to 3 300) °F ITS 90  (500 to 1 820) °C IPTS 48 (500 to 1 820) °C IPTS 68 (500 to 1 820) °C ITS 90	0.95 °F 0.95 °F 0.95 °F  0.6 °C 0.6 °C 0.6 °C	Omega HH41, Agilent 34420A
Electrical Simulation of Temperature Measuring Systems <sup>2</sup>  Type B	(900 to 3 300) °F IPTS 48 (900 to 3 300) °F IPTS 68 (900 to 3 300) °F ITS 90  (500 to 1 820) °C IPTS 48 (500 to 1 820) °C IPTS 68 (500 to 1 820) °C ITS 90	1.4 °F 1.8 °F 1.4 °F  1 °C 0.8 °C 0.8 °C	Checkmate IV CX
Electrical Simulation of Temperature Measuring Systems  Type K	(180 to 2 500) °F IPTS 48 (180 to 2 500) °F IPTS 68 (180 to 2 500) °F ITS 90  (100 to 1 370) °C IPTS 48 (100 to 1 370) °C IPTS 68 (100 to 1 370) °C ITS 90	0.25 °F 0.25 °F 0.25 °F  0.15 °C 0.15 °C 0.15 °C	Omega HH41, Agilent 34420A



**Electromagnetic - DC/Low Frequency**

<b>Parameter/ Equipment</b>	<b>Range</b>	<b>Calibration and Measurement Capability [Expressed as Uncertainty (<math>\pm</math>)]</b>	<b>Reference Standard or Equipment</b>
Electrical Simulation of Temperature Measuring Systems  Type R	(900 to 3 100) °F IPTS 48	0.95 °F	Omega HH41, Agilent 34420A
	(900 to 3 100) °F IPTS 68	0.95 °F	
	(900 to 3 100) °F ITS 90	0.95 °F	
Type R	(500 to 1 700) °C IPTS 48	0.55 °C	
	(500 to 1 700) °C IPTS 68	0.55 °C	
	(500 to 1 700) °C ITS 90	0.55 °C	
Electrical Simulation of Temperature Measuring Systems <sup>2</sup>  Type R	(900 to 3 100) °F IPTS 48	1.9 °F	Checkmate IV CX
	(900 to 3 100) °F IPTS 68	2 °F	
	(900 to 3 100) °F ITS 90	2.1 °F	
Type R	(500 to 1 700) °C IPTS 48	1.5 °C	
	(500 to 1 700) °C IPTS 68	1.1 °C	
	(500 to 1 700) °C ITS 90	1.1 °C	
Electrical Simulation of Temperature Measuring Systems	(900 to 3 200) °F IPTS 48	0.95 °F	Omega HH41, Agilent 34420A
	(900 to 3 200) °F IPTS 68	0.95 °F	
	(900 to 3 200) °F ITS 90	0.95 °F	
Type S	(500 to 1 760) °C IPTS 48	0.55 °C	
	(500 to 1 760) °C IPTS 68	0.61 °C	
	(500 to 1 760) °C ITS 90	0.65 °C	
Electrical Simulation of Temperature Measuring Systems <sup>2</sup>  Type S	(900 to 3 200) °F IPTS 48	2 °F	Checkmate IV CX
	(900 to 3 200) °F IPTS 68	2.1 °F	
	(900 to 3 200) °F ITS 90	1.9 °F	
Type S	(500 to 1 760) °C IPTS 48	1.1 °C	
	(500 to 1 760) °C IPTS 68	1.1 °C	
	(500 to 1 760) °C ITS 90	1 °C	

**Notes:**

1. Calibration and Measurement Capabilities (Expanded Uncertainties) are based on approximately a 95% confidence interval, using a coverage of k=2.
2. On-site calibration service is available for this parameter.
3. Calibration services are provided for equipment manufactured by Heraeus Electro-Nite only.
4. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1294

  
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 Vice President

