



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

MDI Calibration

6065 NW 167 Street, Suite B9, Hialeah, FL 33015

*(Hereinafter called the Organization) and hereby declares that Organization 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
(as outlined by the joint ISO-ILAC-IAF Communiqué dated January 2009):

Dimensional and Electrical Calibration
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President/Operations Manager

Initial Accreditation Date:

June 27, 2017

Issue Date:

June 27, 2017

Expiration Date:

October 31, 2019

Accreditation No.:

95130

Certificate No.:

L17-268

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

*The validity of this certificate is maintained through ongoing assessments based
on a continuous accreditation cycle. The validity of this certificate should be
confirmed through the PJLA website: www.pjllabs.com*



Certificate of Accreditation: Supplement

MDI Calibration

6065 NW 167 Street, Suite B9, Hialeah, FL 33015
Contact Name: Marcelo Tabango Phone: 305-362-2849

Accreditation is granted to the facility to perform the following calibrations:

Dimensional

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Micrometers ^F	Up to 6 in	(60 + 15L) μ in	Grade 1 Gage Blocks
Calipers ^F	Up to 12 in	(700 + 0.4L) μ in	Grade 1 Gage Blocks & Surface Plate
Indicators ^F	Up to 2 in	(120 + 3L) μ in	Grade 1 Gage Blocks & Transfer Stand
Height Gages ^F	Up to 12 in	(700 + 0.4L) μ in	Grade 1 Gage Blocks & Surface Plate

Electrical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Equipment to Measure DC Voltage ^F	Up to 320 mV	10 μ V + 60 nV/mV	Wavetek 9100W/600
	320 mV to 3.2 V	70 μ V + 70 μ V/V	
	3.2 V to 32 V	700 μ V + 70 μ V/V	
	32 V to 320 V	7 mV + 70 μ V/V	
	320 V to 1 050 V	55 mV + 60 μ V/V	
Equipment to Measure DC Current ^F	Up to 320 μ A	70 nA + 160 pA/ μ A	
	320 μ A to 3.2 mA	120 nA + 160 nA/mA	
	3.2 mA to 32 mA	710 nA + 171 nA/mA	
	32 mA to 320 mA	12 μ A + 181 nA/mA	
	320 mA to 3.2 A	140 μ A + 685 μ A/A	
	3.2 A to 10.5 A	1 mA + 670 μ A/A	
	10.5 A to 20 A	5.2 mA + 630 μ A/A	
Equipment to Measure Resistance ^F	0 Ω to 40 Ω	70 m Ω + 1 m Ω / Ω	
	40 Ω to 400 Ω	120 m Ω + 400 μ Ω / Ω	
	400 Ω to 4 k Ω	230 m Ω + 400 μ Ω / Ω	
	4 k Ω to 40 k Ω	2.3 Ω + 300 μ Ω / Ω	
	40 k Ω to 400 k Ω	23 Ω + 300 μ Ω / Ω	
	400 k Ω to 4 M Ω	230 Ω + 500 μ Ω / Ω	
	4 M Ω to 40 M Ω	2.3 k Ω + 2 m Ω / Ω	
	40 M Ω to 400 M Ω	46 k Ω + 3 m Ω / Ω	



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Equipment to Measure AC Voltage At the listed frequencies ^F			Wavetek 9100W/600
10 Hz to 10 kHz	30 mV to 320 mV	192 μV + 455 μV/V	
10 Hz to 10 kHz	320 mV to 3.2 V	310 μV + 455 μV/V	
10 Hz to 10 kHz	3.2 V to 32 V	3 mV + 685 μV/V	
10 Hz to 10 kHz	32 V to 320 V	40 mV + 915 μV/V	
10 Hz to 10 kHz	320 V to 1 050 V	240 mV + 912 μV/V	
Equipment to Measure AC Current At the listed frequencies ^F			
10 Hz to 3 kHz	32 μA to 320 μA	430 nA + 800 nA/mA	
10 Hz to 3 kHz	320 μA to 3.2 mA	400 nA + 800 nA/mA	
10 Hz to 3 kHz	3.2 mA to 32 mA	4 μA + 800 nA/mA	
10 Hz to 3 kHz	32 mA to 320 mA	40 μA + 915 nA/mA	
10 Hz to 3 kHz	320 mA to 3.2 A	500 μA + 1.2 mA/A	
10 Hz to 3 kHz	3.2 A to 10.5 A	4 mA + 2.3 mA/A	
Equipment to Measure Frequency ^F	10 Hz to 1 MHz	0.57 μH/Hz	Wavetek 9100W/600/100
Equipment to Output DC Voltage ^F	Up to 100 mV	4 μV + 60 nV/mV	Agilent 34401A
	100 mV to 1 V	10 μV + 50 μV/V	
	1 V to 10 V	100 μV + 40 μV/V	
	10 V to 100 V	1 mV + 50 μV/V	
	100 V to 1 kV	15 mV + 50 μV/V	
Equipment to Output DC Current ^F	Up to 10 mA	2 μA + 700 nA/mA	
	10 mA to 100 mA	6 μA + 6 μA/mA	
	0.1 A to 1 A	120 μA + 1.15 mA/A	
	1 A to 3 A	700 μA + 1.4 mA/A	
Equipment to Output AC Voltage At the listed frequencies ^F			
10 Hz to 20 kHz	Up to 100 mV	50 μV + 860 nV/mV	
10 Hz to 20 kHz	100 mV to 1 V	340 μV + 850 μV/V	
10 Hz to 20 kHz	1 V to 10 V	3.5 mV + 850 μV/V	
10 Hz to 20 kHz	10 V to 100 V	35 mV + 850 μV/V	
Equipment to Output AC Voltage At the listed frequencies ^F			
50 Hz to 1 kHz	100 V to 750 V	260 mV + 700 μV/V	



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Equipment to Output AC Current At the listed frequencies ^F			Agilent 34401A
20 Hz to 1 kHz	0.1 A to 1 A	450 μ A + 1.3 mA/A	
40 Hz to 1 kHz	1 A to 3 A	3.5 mA + 4 mA/A	
Equipment to Output Resistance ^F	10 Ω to 100 Ω	50 m Ω + 120 $\mu\Omega/\Omega$	
	100 Ω to 1 k Ω	16 m Ω + 115 $\mu\Omega/\Omega$	
	1k Ω to 10 k Ω	150 m Ω + 115 m Ω /k Ω	
	10 k Ω to 100 k Ω	2 Ω + 115 m Ω /k Ω	
	100 k Ω to 1 M Ω	20 Ω + 110 Ω /M Ω	
	1 M Ω to 10 M Ω	260 Ω + 450 Ω /M Ω	
	12 M Ω to 9.2 K Ω	8.4 k Ω + 400 Ω /M Ω	
Equipment to Output Frequency ^F	40 Hz to 300 kHz	6 mHz + 120 μ Hz/Hz	

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this calibration at its fixed location.
4. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.