

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Instrumentación Analítica y Metrología S.A. de C.V.

***Calle Aldama No. 3, Col. Bulevares San Cristóbal
Ecatepec, Estado de México, México. C.P. 55020***

*and hereby declares that the Organization is accredited in accordance with
the recognized International Standard:*

ISO/IEC 17025:2017

Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

***Thermodynamic, Mechanical, Mass, Force and Weighing Devices, Time &
Frequency and Electrical Calibration for Biomedical Equipment
(As detailed in the supplement)***

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:

Tracy Szerszen
President

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

Initial Accreditation Date:

May 06, 2010

Issue Date:

February 28, 2025

Expiration Date:

February 28, 2027

Accreditation No.:

64986

Certificate No.:

L25-161

*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

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Calle Aldama No. 3, Col. Bulevares San Cristobal
Ecatepec, Estado de Mexico, México C.P. 55020
Contact Name: Sergio Martin Galindo. Phone: 551-115-8934

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	LOCATION OF ACTIVITY
Mass, Force and Weighing Devices	Analytical Balances	10 g to 210 g (Res.= 0.1 mg)	$(26.12 \times 10^{-2} + 2.8 \times 10^{-3} \text{Wt})$ mg	Mass Set Class F1	PM-02.4 Internal Procedure	O
	Scales	210 g to 2 kg (Res.= 100 mg)	$(64.22 + 1 \times 10^{-3} \text{Wt})$ mg			O
		2 kg to 100 kg (Res.= 5 g)	$(3.8716 + 1.17 \times 10^{-2} \text{Wt})$ g	Mass Set Class M1		O
	Patient Weight Scales	1 kg to 235 kg	$(4 + 1.17 \times 10^{-2} \text{Wt})$ g	Class 3 Weights		O
	Weights (Class M1, M2 and M3)	500 g	2.2 mg	Mass Set Class F1		F
		1 000 g	14 mg			F
		2 000 g	25 mg			F
		1 kg	5.1 mg			F
		2 kg	10 mg			F
	Weights (Class F2)	1 mg	0.02 mg			F
		2 mg	0.02 mg			F
		5 mg	0.02 mg			F
		10 mg	0.026 mg			F
		20 mg	0.03 mg			F
		50 mg	0.04 mg			F
		100 mg	0.051 mg			F
		200 mg	0.062 mg			F
		500 mg	0.082 mg			F
		1 g	0.1 mg			F
		2 g	0.12 mg			F



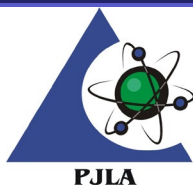
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Mass, Force and Weighing Devices	Weights (Class F2)	5 g	0.16 mg	Mass Set Class F1	PM-02.4 Internal Procedure	F
		10 g	0.2 mg			F
		20 g	0.26 mg			F
		50 g	0.31 mg			F
		100 g	0.51 mg			F
		200 g	1 mg			F
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J	-200 °C to 1 200 °C	0.33 °C	Fluke 744 Electrical Simulation of Thermocouple Output	PE-01.4 Internal Procedure	F
	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K	-200 °C to 1 200 °C	0.33 °C			F
	Equipment to Output Resistance	1 Ω to 110 Ω	7 m Ω	Fluke 744		F
		10 Ω to 110 Ω	15 m Ω			F
		110 Ω to 1 k Ω	75 m Ω			F
		1.1 k Ω to 11 k Ω	1.5 Ω			F
	Equipment to Output DC Current	2 mA to 20 mA	1.5 μ A			F
	Equipment to Output DC Voltage	10 mV to 110 mV	1.2 mV			F
		0.11 mV to 1.1 V	0.006 mV			F



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Electrical	Equipment to Output DC Voltage	1.5 V to 10 V	0.014 mV	Fluke 744	PE-01.4 Internal Procedure	F
		-2 V to 2 V	0.12 μV			F
		-1 kV to 1 kV	0.16 mV			F
		-20 V to 20 V	0.008 mV			F
		-200 V to 200 V	0.06 mV			F
	Equipment to Measure DC Voltage	-200 mV to 200 mV	0.56 μV	Transmille 3041-A		F
		-2 V to 2 V	0.12 μV			F
		-1 kV to 1 kV	0.16 mV			F
		-20 V to 20 V	0.008 mV			F
		-200 V to 200 V	0.06 mV			F
	Equipment to Measure AC Current (@ 1 Hz to 40 Hz)	0 V to 200 V	21 mV			F
	Equipment to Measure AC Current (@ 40 Hz to 56 Hz)	0 V to 200 V	21 mV			F
	Equipment to Measure AC Current (@ 56 Hz to 206 Hz)	0 V to 200 V	21 mV			F
	Equipment to Measure AC Current (@ 206 Hz to 1 kHz)	0 V to 200 V	21 mV			F
	Equipment to Measure AC Current (@ 1 kHz to 20 kHz)	0 V to 200 V	21 mV			F



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Electrical	Equipment to Measure DC Current	-200 μ A to 200 μ A	2.7 nA	Transmille 3041-A	PE-01.4 Internal Procedure	F
		-2 mA to 2 mA	0.017 μ A			F
		-20 mA to 20 mA	0.16 μ A			F
	Equipment to Measure DC Current	-200 mA to 200 mA	2.2 μ A			F
		-2 A to 2 A	0.013 mA			F
		-30 A to 30 A	1.6 mA			F
	Equipment to Measure AC Current (@ 1 Hz to 40 Hz)	0 A to 2 A	0.3 mA			F
	Equipment to Measure AC Current (@ 40 Hz to 56 Hz)	0 A to 2 A	0.3 mA			F
	Equipment to Measure AC Current (@ 56 Hz to 206 Hz)	0 A to 2 A	0.3 mA			F
	Equipment to Measure AC Current (@ 206 Hz to 1 kHz)	0 A to 2 A	0.3 mA			F
	Equipment to Measure AC Current (@ 1 Hz to 40 Hz)	0 A to 30 A	2.5 mA			F
	Equipment to Measure AC Current (@ 40 Hz to 56 Hz)	0 A to 30 A	2.5 mA			F
	Equipment to Measure AC Current (@ 56 Hz to 206 Hz)	0 A to 30 A	2.5 mA			F



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Electrical	Equipment to Measure AC Current (@ 206 Hz to 1 kHz)	0 A to 30 A	2.5 mA	Transmille 3041-A	PE-01.4 Internal Procedure	F
	Electrical Resistance	0 Ω to 100 Ω	0.5 m Ω			F
		0 k Ω to 1 k Ω	1 m Ω			F
		0 k Ω to 10 k Ω	0.6 Ω			F
		0 k Ω to 100 k Ω	0.7 Ω			F
		0 M Ω to 1 M Ω	0.009 k Ω			F
		0 M Ω to 10 M Ω	0.11 k Ω			F
	Clamps Coils Turn at 56 Hz (@ 2 turns)	0 A to 30 A	7 mA	Transmille 3041-A Workstation EA015		F
	Clamps Coils Turn at 56 Hz (@ 10 turns)	0 A to 30 A	7 mA			F
	Clamps Coils Turn at 56 Hz (@ 50 turns)	0 A to 30 A	7 mA			F
Thermodynamic	Humidity Meters	30 % RH to 90 % RH	2 % RH	Vaisala/ PMA Humidity	PH-01.4 Internal Procedure	F
	Climatic Chamber	2 °C to 160 °C	0.3 °C	Thermocouples Type J	PC-04.1 Internal Procedure	O
	Glass liquid Thermometers	-35 °C to 80 °C	0.2 °C	Precision Thermometer ISOTECH Milli-K	PT-01.4 Internal Procedure	F
	Temperature Indicators	-35 °C to 80 °C	0.2 °C	RTD Type Pt 100		F, O



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Thermodynamic	Temperature Indicators (Fixed Point)	-80 °C	0.2 °C	RTD Type Pt 100 Thermal Bath	PE-01.4 Internal Procedure	F, O
Time and Frequency	Velocity Meters & Centrifuges (Rate of Rotation)	50 rpm to 10 000 rpm	0.3 % of reading	Tachometer Shimpo DT-205L		F, O
	Stopwatch and Timer	60 s to 86 400 s	0.3 s	Digital Chronometer	NIST SP 960-12	F, O
	Tachometer	60 rpm to 20 000 rpm	0.6 rpm	Transmille 3041-A	PE-01.4 Internal Procedure	F
Mechanical	Piston Pipette	2 μ L to 10 000 μ L (Res. = 0.01 mg)	$(39.63 \times 10^{-3} + 6.1 \times 10^{-4}V) \mu$ L	Analytical balance	PM-01.4 Internal Procedure	F
	Pressure Gages	3 psi to 300 psi	0.65 psi	Pressure Transducer Druck DPI-705		F
		10 Pa to 100 Pa	1 % of reading	Digital Pressure Gage Brand: Dwyer Model: Magnesense		F
	Low Flow Meter (Gas Flow)	0.2 L/min to 20 L/min	1 % of reading	FlowAnalyser PF-300 Brand: Imtmedical ag	PF-01.4 Internal Procedure	F, O
	High Flow Meter (Gas Flow)	3 L/ min to 300 L/min	1 % of reading			F, O

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.



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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. Location of activity:

Location Code	Location
F	Conformity assessment activity is performed at the CABs fixed facility
O	Conformity assessment activity is performed onsite at the CABs customer location
4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.
5. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.
6. The term V represents Volume in liters (including SI multiple and submultiple units) appropriate to the uncertainty statement