



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

JLI Metrology S.A.C.
Jirón General Varela 1891 Breña
Lima, Perú. C.P. 15083

*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:

***Dimensional, Mechanical, Mass, Force and Weighing Devices, Thermodynamic,
Time and Frequency, Optical and Electrical Calibration***
(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:

Initial Accreditation Date:

Issue Date:

Expiration Date:

January 22, 2025

January 22, 2025

April 30, 2027

Accreditation No.:

Certificate No.:

129326

L25-70

Tracy Szerszen
President

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.pjilabs.com*



Certificate of Accreditation: Supplement

JLI Metrology S.A.C.

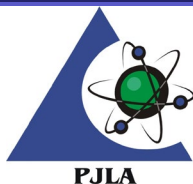
Jirón General Varela 1891 Breña

Lima, Perú. C.P. 15083

Contact Name: José Ricardo Bellón Arriola Phone: (51)01-636-0265/ (51)991-330-150

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
Dimensional	Calipers	0.5 mm to 300 mm	3.8 μ m	Grade 1 Gauge Blocks	CEM DI-008 INACAL PC-012	F
	Dial Indicators/ Gauges	0.5 mm to 100 mm	0.68 μ m	Grade 1 Gauge Blocks, Granite Comparator Stand	INACAL PC-014	F
	Outside Micrometers	0.5 mm to 375 mm	0.61 μ m	Grade 1 Gauge Blocks, Optical Parallel, Optical Flat	CEM DI-005 INACAL PC-013	F
	Depth Meter	0.5 mm to 300 mm	1.2 μ m	Grade 1 Gauge Blocks	CEM DI-008 INACAL PC-012	F
Mechanical	Torque Transducers	0.45 Nm to 2711.6 Nm	0.11 % of reading	Torque Arms and Class 6 Weights	ASTM E2624-17 ISO 6789-2	F
	Torque Tools	0.56 Nm to 2 711.6 Nm	0.4 % of reading	Torque Transducer	PC-031 INACAL	F
	Vacuum Gauge	-0.9 bar to 0 bar	0.000 7 bar	Fluke 754 Pressure Module	PC-004 INACAL	F
		-13.05 psi to 0 psi	0.01 psi			F
	Gauge Pressure Accuracy Class Greater than 0.25 % to less than 1 %	1.5 psi to 15 psi	0.008 psi	Fluke 700PD4 Dual Pressure Module Documenting Process Calibrator Fluke 754	PC-004 INACAL	F
		30 psi to 300 psi	0.07 psi	Fluke 700P27 Dual Pressure Module Documenting Process Calibrator Fluke 754		F
		6 psi to 60 psi	0.014 psi	Digital Pressure Gauge HS108-4		F
		100 psi to 1 000 psi	0.7 psi	Digital Pressure Gauge HS108-10		F
500 psi to 5 000 psi		0.9 psi	Digital Pressure Gauge HS108-13	F		
1 000 psi to 10 000	3 psi	Digital Pressure Gauge HS108-15	F			



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Mass, Force and Weighing Devices	Force – Tension (Wire Tensiometer)	0.5 N to 4 000 N	0.1 % of reading	OIML Class M2 Weights	Euramet cg.4	F
	Force – Tension (Dynamometer)	0.5 N to 4 000 N	0.1 % of reading		CEM ME-002	F
Thermodynamic	Infrared Thermometer	0 °C to 100 °C	1.4 °C	Radiation Thermometers(Infrared) Direct Comparison	Technical guide CENAM	FO
		100 °C to 200 °C	1.7 °C			FO
		200 °C to 300 °C	2.7 °C			FO
		300 °C to 450 °C	3.1 °C			FO
	Thermometer (Digital, Bimetallic)	-20 °C to 0 °C	0.12 °C	Fluke 1524 Platinum Resistance Thermometers	CEM TH-001	FO
		0 °C to 50 °C	0.15 °C			FO
		50 °C to 100 °C	0.21 °C			FO
		100 °C to 200 °C	0.3 °C			FO
		200 °C to 350 °C	0.28 °C			FO
	Time and Frequency	Frequency - Measure Time Base (@ 10 MHz)	10 MHz	12 pHz/Hz	HP 58503A GPS Frequency Standard	INTI PEE62
Equipment to Measure Frequency		10 Hz to 1 000 Hz	8.5 nHz	Signal Generator Commanded by GPS Receiver HP 58503A	F	
		1 kHz to 1 000 kHz	0.85 μ Hz		F	
		1 MHz to 1 000 MHz	0.85 mHz		F	
		1 GHz to 12 GHz	0.85 Hz		F	
Equipment to Output Frequency		10 Hz to 1 000 Hz	61 nHz	Tektronix MCA3027 Counter Commanded by GPS Receiver HP 58503	F	
		1 kHz to 1 000 kHz	6.1 μ Hz		F	
		1 MHz to 1 000 MHz	2.1 mHz		F	
	1 GHz to 12 GHz	2.1 Hz	F			



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Optical	Lux Meter, Light Meter	15 lux to 236 lux	11 lux	Direct Comparison/ Hioki FT3424 Illuminance Meter	INTI PEEL05RFB	F
		237 lux to 467 lux	21 lux			F
		468 lux to 923 lux	42 lux			F
		924 lux to 1 389 lux	59 lux			F
		1 390 lux to 1 888 lux	79 lux			F
		1 889 lux to 2 375 lux	0.1 klux			F
		2 376 lux to 2 868 lux	0.12 klux			F
		2 869 lux to 3 368 lux	0.14 klux			F
		3 369 lux to 3 869 lux	0.16 klux			F
Electrical	Equipment to Measure DC Voltage	-90 mV to -900 mV	0.002 6 mV	Fluke 5522A Multi Product Calibrator	PC-021 INACAL	F
		-0.9 V to -9 V	0.000 013 V			F
		-10 V to -100 V	0.000 82 V			F
		-100 V to -950 V	0.008 3 V			F
		5 mV to 100 mV	0.001 8 mV			F
		0.1 V to 1 V	0.000 008 5 V			F
		1 V to 10 V	0.000 082 V			F
		10 V to 100 V	0.000 82 V			F
		100 V to 950 V	0.008 3 V			F
	Equipment to Measure DC Current	10 μ A to 100 μ A	0.014 μ A	F		
		0.1 mA to 1 mA	0.000 041 mA	F		
		1 mA to 10 mA	0.000 12 mA	F		
		10 mA to 100 mA	0.001 mA	F		



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Electrical	Equipment to Measure DC Current	-10 mA to -100 mA	0.001 mA	Fluke 5522A Multi Product Calibrator	PC-021 INACAL	F
		-0.1 A to -1 A	0.000 011 A			F
		-1 A to -9 A	0.000 1 A			F
		0.1 A to 1 A	0.000 024 A			F
		1 A to 9 A	0.000 17 A			F
	Equipment to Measure AC Voltage (@ 60 Hz to 500 Hz)	30 mV to 100 mV	0.007 1 mV	F		
	Equipment to Measure AC Voltage (@ 500 Hz to 1 kHz)	30 mV to 100 mV	0.007 1 mV	F		
	Equipment to Measure AC Voltage (@ 60 Hz to 500 Hz)	0.1 V to 1 V	0.000 018 V	F		
	Equipment to Measure AC Voltage (@ 500 Hz to 1 kHz)	0.1 V to 1 V	0.000 018 V	F		
	Equipment to Measure AC Voltage (@ 60 Hz to 500 Hz)	1 V to 10 V	0.000 18 V	F		
Equipment to Measure AC Voltage (@ 500 Hz to 1 kHz)	1 V to 10 V	0.000 18 V	F			
Equipment to Measure AC Voltage (@ 60 Hz to 500 Hz)	10 V to 100 V	0.001 8 V	F			



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Electrical	Equipment to Measure AC Voltage (@ 500 Hz to 1 kHz)	10 V to 100 V	0.001 8 V	Fluke 5522A Multi Product Calibrator	PC-021 INACAL	F
	Equipment to Measure AC Voltage (@ 60 Hz to 500 Hz)	100 V to 950 V	0.02 V			F
	Equipment to Measure AC Voltage (@ 500 Hz to 1 kHz)	100 V to 950 V	0.019 V			F
	Equipment to Measure AC Current (@ 60 Hz to 500 Hz)	0.1 mA to 1 mA	0.000 15 mA			F
		1 mA to 10 mA	0.000 93 mA			F
		10 mA to 100 mA	0.006 8 mA			F
		0.1 A to 1 A	0.000 042 A			F
		1 A to 9 A	0.000 42 A			F
	Equipment to Measure AC Current (@ 500 Hz to 1 kHz)	33 μ A to 100 μ A	0.093 μ A			F
		0.1 mA to 1 mA	0.000 15 mA			F
		1 mA to 10 mA	0.000 78 mA			F
		10 mA to 100 mA	0.005 4 mA			F
		0.1 A to 1 A	0.000 058 A			F
		1 A to 9 A	0.000 42 A			F
	Equipment to Measure Resistance	1 Ω to 10 Ω	0,0007 Ω			F
		10 Ω to 100 Ω	0.0012 Ω			F
		0.1 k Ω to 1 k Ω	0.000 008 6 k Ω			F
		1 k Ω to 10 k Ω	0.000 084 k Ω			F



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Electrical	Equipment to Measure Resistance	10 k Ω to 100 k Ω	0.000 84 k Ω	Fluke 5522A Multi Product Calibrator	PC-021 INACAL	F
		0.1 M Ω to 1 M Ω	0.000 008 4 M Ω			F
		1 M Ω to 10 M Ω	0.000 085 M Ω			F
		10 M Ω to 90 M Ω	0.0012 M Ω			F
	Equipment to Output DC Voltage	-100 mV to -200 mV	0.005 6 V	Fluke 8846A Digital Multimeter	EL-010 CEM	F
		-0.2 V to -2 V	0.000 005 6 V			F
		-2 V to -20 V	0.000 055 V			F
		-20 V to -200 V	0.002 1 V			F
		-200 to -900 V	0.024 V			F
		100 mV to 200 mV	0.0036 mV			F
		0.2 V to 2 V	0.000 005 5 V			F
		2 V to 20 V	0.000 054 V			F
		100 mV to 200 mV	0.0036 mV			F
		20 V to 200 V	0.002 V			F
		200 V to 900 V	0.024 V			F
		Equipment to Output DC Current	0.1 mA to 200 mA			0.000 26 mA
	0.2 A to 2 A		0.000 22 A	F		
	2 A to 9 A		0.002 1 A	F		
	Equipment to Output AC Voltage (@ 60 Hz to 500 Hz)	100 mV to 200 mV	0.18 mV			F



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Electrical	Equipment to Output AC Voltage (@ 500 Hz to 1 kHz)	100 mV to 200 mV	0.052 mV	Fluke 8846A Digital Multimeter	EL-010 CEM	F
	Equipment to Output AC Voltage (@ 60 Hz to 500 Hz)	0.2 V to 2 V	0.000 18 V			F
	Equipment to Output AC Voltage (@ 500 Hz to 1 kHz)	0.2 V to 2 V	0.000 18 V			F
	Equipment to Output AC Voltage (@ 60 Hz to 500 Hz)	2 V to 20 V	0.002 V			F
	Equipment to Output AC Voltage (@ 500 Hz to 1 kHz)	2 V to 20 V	0.001 8 V			F
	Equipment to Output AC Voltage (@ 60 Hz to 500 Hz)	20 V to 200 V	0.026 V			F
	Equipment to Output AC Voltage (@ 500 Hz to 1 kHz)	20 V to 200 V	0.012 V			F
	Equipment to Output AC Voltage (@ 60 Hz to 500 Hz)	200 V to 900 V	0.24 V			F
	Equipment to Output AC Voltage (@500 Hz to 1 kHz)	200 V to 900 V	0.14 V			F



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Electrical	Equipment to Output AC Current (@ 60 Hz to 500 Hz)	1 mA to 200 mA	0.012 mA	Fluke 8846A Digital Multimeter	EL-010 CEM	F
	Equipment to Output AC Current (@ 500 Hz to 1 kHz)	1 mA to 200 mA	0.012 mA			F
	Equipment to Output AC Current (@ 60 Hz to 500 Hz)	0.2 A to 2 A	0.001 5 A			F
	Equipment to Output AC Current (@ 500 Hz to 1 kHz)	0.2 A to 2 A	0.001 5 A			F
	Equipment to Output AC Current (@ 60 Hz to 500 Hz)	2 A to 9 A	0.005 5 A			F
	Equipment to Output AC Current (@ 500 Hz to 1 kHz)	2 A to 9 A	0.005 6 A			F
	Equipment to Output Resistance	1 Ω to 200 Ω	0.001 4 Ω			F
		0.2 k Ω to 2 k Ω	0.000 022 k Ω			F
		2 k Ω to 20 k Ω	0.000 23 k Ω			F
		20 k Ω to 200 k Ω	0.002 4 k Ω			F
		0.2 M Ω to 2 M Ω	0.000 022 M Ω			F
		2 M Ω to 20 M Ω	0.000 65 M Ω			F
		20 M Ω to 200 M Ω	0.056 M Ω			F
		200 M Ω to 900 M Ω	9.9 M Ω			F



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Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type J Simulation	-200 °C	0.3 °C	Fluke 741B Process Calibrator Electrical Simulation of Thermocouple Output and Input	Euramet CG-11	FO	
		-199.9 °C to 0 °C	0.16 °C			FO	
		0 °C to 1 200 °C	0.16 °C			FO	
	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type K Simulation	-200 °C to -150 °C	0.3 °C			FO	
		-149.9 °C to 0 °C	0.16 °C			FO	
		0 °C to 800 °C	0.16 °C			FO	
		800 °C to 1 372 °C	0.3 °C			FO	
	Temperature Calibration, Indication and Control Equipment used with RTD Pt 385, 100 Ω Simulation	-200 °C to 0 °C	0.3 °C			Fluke 741B Process Calibrator Electrical Simulation of RTD Output and Input	FO
		0 °C to 800 °C	0.3 °C				FO

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.



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

3. Location of activity:

Location	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.

