



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

METROMANLAB / MANLAB, S.A. DE C.V.

***Avenida Central No. 230, Int. 101, Col. Los Lermas
Guadalupe, Nuevo León, México, C.P. 67188***

*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 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:

March 16, 2025

March 16, 2025

June 30, 2027

Accreditation No.:

Certificate No.:

130233

L25-207

Tracy Szerszen
President

*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*

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



Certificate of Accreditation: Supplement

METROMANLAB / MANLAB, S.A. DE C.V.

Avenida Central No. 230, Int. 101, Col. Los Lermas
Guadalupe, Nuevo León, México, C.P. 67188
Contact Name: Miguel Cerda García Phone: 811-762-6136

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
Thermodynamic	Temperature Measurement Thermocouple Type K, J, N, T	100 °C	0.45 °C	Thermocouple Pattern: MLK49-GM-012-F159 / ADT875PC-1210 Dry Well/ EXTECH SDL200	Direct Comparison PROC-006	F
		200 °C	0.46 °C			F
		300 °C to 400 °C	0.49 °C			F
	Temperature Measurement Thermocouple Type K, J, N	500 °C to 600 °C	0.47 °C			F
		700 °C	1 °C			F
		800 °C	1 °C			F
	Temperature Measurement Thermocouple Type K, N	900 °C to 1 000 °C	1.5 °C			F
		1 100 °C	1.5 °C			F

- 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.
- 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.

- Location of activity:

Location Code

Location

F Conformity assessment activity is performed at the CABs fixed facility

- 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.