



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Michigan Scientific Corporation (MSC)

8500 Ance Road, Charlevoix, MI 49720

*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:

Mass, Force and Weighing Devices and Mechanical 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:

September 04 2020

Issue Date:

March 04, 2025

Expiration Date:

March 04, 2027

Tracy Szerszen
President

Accreditation No.:

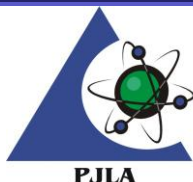
91699

Certificate No.:

L25-203-1

*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

Michigan Scientific Corporation (MSC)

8500 Ance Road, Charlevoix, MI 49720

Contact Name: Steve Jarema Phone: 231-547-5511

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	Equipment to Measure Force – Compression & Tension	5 000 lbf to 10 000 lbf	5.9 lbf	Screw Press Transducer – Interface 1610AJH-10K	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	3 500 lbf to 10 000 lbf	6.3 lbf	TCAT Transducer (Fx)	ISOMSC-2110501851-1116 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	1 200 lbf to 15 000 lbf	8 lbf	TCAT Transducer (Fy)	ISOMSC-2110501851-1116 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	3 500 lbf to 10 000 lbf	3 lbf	TCAT Transducer (Fz)	ISOMSC-2110501851-1116 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	100 lbf to 1 000 lbf	3.1 lbf	Screw Press Transducer-Interface 1010ACK-1K-B	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	1 001 lbf to 5 000 lbf	4.1 lbf	Screw Press Transducer-Interface 1210ACK-5K-B	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	5 001 lbf to 12 500 lbf	9.4 lbf	Screw Press transducer-Interface 1020ACK-12.5K-B	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	12 501 lbf to 25 000 lbf	16 lbf	Screw Press transducer-Interface 1020ACK-25K-B	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	25 001 lbf to 50 000 lbf	37 lbf	Screw Press transducer-Interface 1220ACK-50K-B	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	4 000 lbf to 20 000 lbf	18 lbf	WFT2-A Transducer (Fx)	ISOMSC-695603924-51	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	2 000 lbf to 10 000 lbf	23 lbf	WFT2-A Transducer (Fy)	ISOMSC-695603924-51	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	4 000 lbf to 20 000 lbf	22 lbf	WFT2-A Transducer (Fz)	ISOMSC-695603924-51	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	20 001 lbf to 40 000 lbf	48 lbf	WFT2-B Transducer (Fx)	ISOMSC-695603924-51	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	10 001 lbf to 20 000 lbf	32 lbf	WFT2-B Transducer (Fy)	ISOMSC-695603924-51	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	20 001 lbf to 40 000 lbf	55 lbf	WFT2-B Transducer (Fz)	ISOMSC-695603924-51	F



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Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	50 000 lbf to 100 000 lbf	43 lbf	SP4 Transducer – Interface 1332ACK-100K-B	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	40 001 lbf to 150 000 lbf	200 lbf	WFT3 Transducer (Fx)	ISOMSC-695603924-50	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	20 001 lbf to 150 000 lbf	78 lbf	WFT3 Transducer (Fy)	ISOMSC-695603924-50	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	40 001 lbf to 150 000 lbf	130 lbf	WFT3 Transducer (Fz)	ISOMSC-695603924-50	F
Mass, Force, and Weighing Devices	Equipment to Measure Force – Compression & Tension	10 000 lbf to 50 000 lbf	14 lbf	Screw Press transducer - Interface 1620AJH-50K	ISOMSC-2110501851-1114 ASTM E74 Class A	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	7 001 ft•lbf to 12 000 ft•lbf	33 ft•lbf	Torque machine transducer – 12K-LBFT Reference	ISOMSC-2110501851-1057 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	801 ft•lbf to 7 000 ft•lbf	5.9 ft•lbf	Torque machine transducer – TW15.0	ISOMSC-2110501851-1057 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	176 ft•lbf to 800 ft•lbf	1.1 ft•lbf	Torque machine transducer – TW12.8HRMS800	ISOMSC-2110501851-1057 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	80 ft•lbf to 175 ft•lbf	0.9 ft•lbf	Torque machine transducer – TW12.8HRMS175	ISOMSC-2110501851-1057 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	1 200 ft•lbf to 7 000 ft•lbf	4.2 ft•lbf	TCAT Transducer (Mx)	ISOMSC-2110501851-1116 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	2 500 ft•lbf to 7 000 ft•lbf	3.5 ft•lbf	TCAT Transducer (My)	ISOMSC-2110501851-1116 ASTM E2428	F



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Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	1 200 ft•lbf to 7 000 ft•lbf	11 ft•lbf	TCAT Transducer (Mz)	ISOMSC-2110501851-1116 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	2 200 ft•lbf to 11 000 ft•lbf	29 ft•lbf	WFT2-A Transducer (Mx)	ISOMSC-695603924-51 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	3 000 ft•lbf to 15 000 ft•lbf	25 ft•lbf	WFT2-A Transducer (My)	ISOMSC-695603924-51 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	2 200 ft•lbf to 11 000 ft•lbf	33 ft•lbf	WFT2-A Transducer (Mz)	ISOMSC-695603924-51 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	11 001 ft•lbf to 30 000 ft•lbf	29 ft•lbf	WFT2-B Transducer (Mx)	ISOMSC-695603924-51 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	15 001 ft•lbf to 30 000 ft•lbf	25 ft•lbf	WFT2-B Transducer (My)	ISOMSC-695603924-51 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	11 001 ft•lbf to 30 000 ft•lbf	33 ft•lbf	WFT2-B Transducer (Mz)	ISOMSC-695603924-51 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	30 001 ft•lbf to 150 000 ft•lbf	230 ft•lbf	WFT3 Transducer (Mx)	ISOMSC-695603924-50 ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	30 001 ft•lbf to 150 000 ft•lbf	150 ft•lbf	WFT3 Transducer (My)	ISOMSC-695603924-50, ASTM E2428	F
Mechanical	Torque Transducer – (Clockwise & Counterclockwise)	30 001 ft•lbf to 150 000 ft•lbf	310 ft•lbf	WFT3 Transducer (Mz)	ISOMSC-695603924-50 ASTM E2428	F



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

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. 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. This is the primary site for all quality management system activities.