NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Load Cell
Shear Beam
Model: LP7110
n_{max}: 3000 Single Cell
5000 Multiple Cell
Capacity: 1000 lb to 20 000 lb
Accuracy Class: III

Submitted By:
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Standard Features and Options

- The specific load cell models, capacities and v_{min} values covered by this Certificate are listed in the table below.
- Nominal Output: 2.0 to 3.0 mV/V
- Alloy Steel
- Stainless Steel
- 4 Wire Design

Model	Capacity(lb)	Single and Multiple Cell Vmin(lb)	Single Cell nmax	Multiple Cell nmax	Minimum Dead Load(lb)
LP7110	1000	0.099	3000	5000	10
	1500	0.149	3000	5000	15
	2000	0.199	3000	5000	20
	2500	0.249	3000	5000	25
	3000	0.299	3000	5000	30
	4000	0.399	3000	5000	40
	5000	0.499	3000	5000	50
	7500	0.749	3000	5000	75
	10000	0.999	3000	5000	100
	15000	1.499	3000	5000	150
	20000	1.999	3000	5000	200

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of "NIST Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Marq Paquette
Chair, NCWM, Inc.

Gene Robertson
Chair, NTEP Committee
Issued: April 9, 2025

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Locosc Ningbo Precision Technology Co., Ltd.
Load Cell / LP7110

Application: The load cells may be used in single cell and multiple cell Class III applications consistent with the model designations, number of scale divisions, and parameters specified in this certificate. Load cells of a given accuracy class may be used in applications with lower accuracy class requirements provided the number of scale divisions, the v_{min} value, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions (n_{max}) and with greater v_{min} values than those listed on the certificate. However, the load cells must be marked with the appropriate n_{max} and v_{min} for which the load cell may be used.

Identification: An identification label located on the cell, states manufacturer name, model, serial number, CC number and rated capacity. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

Test Conditions: This certificate supersedes certificate of conformance 17-121A1 and is issued to add additional load cell capacities and stainless-steel transducer material. A Model LP7110 2500 kg load cell were tested by the NMi Certain B.V. at The Netherlands facility. Testing was conducted in accordance with the OIML-CS arrangement, signed by the NCWM as a utilizing participant for load cell testing. Testing was conducted using deadweights as the reference standard. The load cell was tested over a temperature range of -10 C to 40 C, with tests run at each temperature. The temperature effect on zero was measured, and a time dependence (creep) test was performed. The barometric pressure test was conducted to determine the sensitivity of the load cell design to changes in barometric pressure. The data was analyzed for single and multiple load cell applications. OIML R60 selection criteria were used to determine which load cell capacities were tested.

Certificate of Conformance Number 17-121A1: This certificate supersedes Certificate of Conformance Number 17-121 and was issued to recognize additional evaluation and testing to expanded n_{max} for multiple cell use. A 500 kg capacity load cells was tested by the NMi Certain B.V. at The Netherlands facility. Testing was conducted in accordance with the OIML DoMC Mutual Acceptance Arrangement, signed by the NCWM as a utilizing participant for load cell testing. Testing was conducted using deadweights as the reference standard. The load cells were tested over a temperature range of -10 °C to 40 °C with tests run on each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed. The barometric pressure test to determine sensitivity of the load cell design to changes in barometric pressure was conducted. The data were analyzed for single and multiple load cell applications. OIML R60 selection criteria were used to determine cells tested. Previous test conditions are listed below for reference.

Certificate of Conformance Number 17-121: A Model LP7110, 500 kg capacity load cells was tested by the NMi Certain B.V. at The Netherlands facility. Testing was conducted in accordance with the OIML DoMC Mutual Acceptance Arrangement, signed by the NCWM as a utilizing participant for load cell testing. Testing was conducted using deadweights as the reference standard. The load cells were tested over a temperature range of -10 °C to 40 °C with tests run on each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed. The barometric pressure test to determine sensitivity of the load cell design to changes in barometric pressure was conducted. The data were analyzed for single load cell applications. OIML R60 selection criteria were used to determine cells tested.

Evaluated By: M.M.J. Meijer, S.J. Koeman (NMi) 17-121, 17-121A1; M.M.J Meijer, L.M. Wiggerts (NMi) 17-121A2 (CN 11347)

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2024. NCWM, Publication 14: Weighing Devices, 2024.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: J. Truex (NCWM) 17-121, 17-121A1; J. Gibson (NCWM) 17-121A2

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Load Cell / LP7110

Example of Device:

