



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell
Compression, Shear Beam
Model: LHX-1
 $n_{\max}$: 3000, Class III, Single Cell
7500, Class IIIL, Multiple Cell
Capacity: 500 lb to 5000 lb
Accuracy Class: III / IIIL

Submitted By:

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Standard Features and Options

- Specific load cell capacities and $v_{\min}$ values covered by this Certificate are listed in the table below.
- Nominal output: 2.0 mV/V
- Alloy Steel material
- 4 wire design
- Minimum Dead Load: 0 kg

Models	Capacity (lb)	$V_{\min}$ Class III Single Cell (lb)	$V_{\min}$ Class IIIL Multiple Cell (lb)
LHX-1 *Load Cells Tested	500	0.011	0.05
	1000*	0.023	0.10
	1500	0.034	0.15
	2000	0.046	0.20
	2500	0.057	0.30
	4000	0.092	0.40
	5000	0.11	0.50

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

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.

Brett Gurney
Chairman, NCWM, Inc.

James Cassidy
Chairman, National Type Evaluation Program Committee
Issued: December 11, 2018

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**Huzhou Liheng Electronic Technology Co., Ltd****Load Cell / LHX-1**

Application: The load cells may be used in Class III and IIIL scales for single and multiple cell 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: A pressure sensitive identification label located on the cell, states manufacturer name, model, serial number, rated capacity and NTEP certificate number. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

Test Conditions: This certificate supersedes NTEP Certificate of Conformance Number 18-003 and was issued to recognize Class III use based upon additional testing. A Model LHX-1, 500 kg capacity load cell was tested by the NMI Certin B.V. at the Netherlands facility. Testing was conducted in accordance with the OIML Certificate System, 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 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 Class III single 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 18-003: A Model LMX-1, 500 kg capacity load cell was tested by the NMI Certin 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 cell was 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 multiple load cell applications. OIML R60 selection criteria were used to determine cells tested.

Evaluated By: M.M.J. Meijer, E. van der Grinten (NMI) 18-003; S.J. Koeman, M.M.J. Meijer (NMI) 18-003A1

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2018. NCWM, Publication 14: Weighing Devices, 2018.

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) 18-003, 18-003A1

Example of Device:

