

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Load Cell Single Point Model: L6N Series

 n_{max} : 5 000, Class III, Single/Multiple Cell

Capacity: 3 kg to 200 kg Accuracy Class: III **Submitted By:**

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Standard Features and Options

- ullet The specific load cell capacities, v_{min} values, and minimum dead loads covered by this Certificate are listed on page two.
- Model L6N (350Ω Bridge Nom), wiring color code:
- Red (+Input), Blue (+Sense), White (-Output), Black (-Input), Brown (-Sense), Green (+Output)

Standard Features:

- Nominal Output: 2.0 mV/V
- Aluminum Material
- 6 Wire Design

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.

Tim Tyson Chairman, NCWM, Inc. Randy Jennings Chairman, National Type Evaluation Program Committee

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Zemic (USA), Inc.

Load Cell / L6N Series

Model	Capacity	v _{min} Class III	v _{min} Class III	Minimum Dead Load
		Single Cell, $n = 5000$	Multiple Cell, n = 5000	
L6N	3 kg	0.0002 kg	0.0002 kg	0 kg
L6N	5 kg	0.0004 kg	0.0004 kg	0 kg
L6N	8 kg	0.0006 kg	0.0006 kg	0 kg
L6N	10 kg*	0.0008 kg	0.0008 kg	0 kg
L6N	15 kg	0.0012 kg	0.0012 kg	0 kg
L6N	20 kg	0.0016 kg	0.0016 kg	0 kg
L6N	30 kg	0.0024 kg	0.0024 kg	0 kg
L6N	50 kg*	0.0040 kg	0.0040 kg	0 kg
L6N	75 kg	0.0060 kg	0.0060 kg	0 kg
L6N	100 kg	0.0080 kg	0.0080 kg	0 kg
L6N	150 kg	0.0120 kg	0.0120 kg	0 kg
L6N	200 kg	0.0160 kg	0.0160 kg	0 kg

^{*2} load cells tested

Application: The load cells may be used in Class III 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 \mathbf{v}_{min} value, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions (\mathbf{n}_{max}) and with greater \mathbf{v}_{min} values than those listed on the certificate. However, the load cells must be marked with the appropriate \mathbf{n}_{max} and \mathbf{v}_{min} for which the load cell may be used.

<u>Identification</u>: A pressure sensitive identification label located on the cell states manufacturer name, model number, serial number, rated capacity, rated output, \mathbf{v}_{min} , class, CC number, and country of origin. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

<u>Test Conditions</u>: Test data was analyzed for the 10 kg and 50 kg load cells submitted. 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 three tests run on each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed. The data was analyzed for single and multiple load cell applications.

Evaluated By: K. Jones (CA)

<u>Type Evaluation Criteria Used:</u> NIST, <u>Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices</u>, 2011. NCWM, <u>Publication 14: Weighing Devices</u>, 2011.

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)

Example of Device:



L6N Series Load Cell