



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell
Single Ended Bending Beam
Model: RL1042
 n_{max} : 5 000
Capacity: 1 kg to 100 kg (see below)
Accuracy Class: III

Submitted By: Contact Info. Updated November 2022

Rice Lake Weighing Systems
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Standard Features and Options**Standard Features:**

- Construction: Aluminum
- Excitation: 15 volts AC or DC maximum
- Nominal Output: 2.00 mv/V
- 4- and 6-wire Design

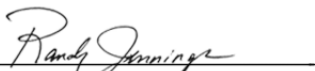
Not: A balanced temperature compensation model is available for use in circuits requiring electrical symmetry, where the zero circuit is sensitive to a change in load cell symmetry.

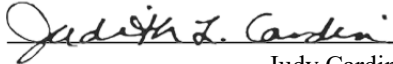
Capacity	V_{min} Single Cell	Minimum Dead Load
1 kg	0.0001 kg	0
3 kg*	0.0003 kg	0
5 kg	0.0005 kg	0
7 kg	0.0007 kg	0
10 kg	0.0010 kg	0
15 kg	0.0015 kg	0
20 kg	0.0020 kg	0
30 kg	0.0030 kg	0
50 kg*	0.0050 kg	0
75 kg	0.0075 kg	0
100 kg	0.0100 kg	0

* Load Cells Submitted for Evaluation

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.


Randy Jennings
Chairman, NCWM, Inc.


Judith Cardin
Chairman, National Type Evaluation Program Committee
Issued: February 24, 1999

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**Rice Lake Weighing Systems**

Load Cell / RL1042

Application: The load cells may be used in Class III scales for single 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 $v_{\min}$ values, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions ($n_{\max}$) and with larger $v_{\min}$ 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 badge containing the manufacturer, model designation, and serial number is located on the load cell. All other required information, if not marked on the load cell, must be on an accompanying document including the serial number of the load cell.

Test Conditions: This Certificate is issued based on the following tests and on information provided by the manufacturer. Two 3-kg and two 50-kg capacity load cells were tested at the California Division of Measurement Standards using dead weights as the reference standard. The data were analyzed for both single and multiple load cell applications. The cells were tested over a temperature range of -10°C to 40°C . Three tests were 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 was waived due to the insensitivity of the load cell design to changes in barometric pressure.

Evaluated By: Gary Castro (CA) California Division of Measurement Standards

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 1997. NCWM, Publication 14: Weighing Devices, 1997.

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

Information Reviewed By: G. Newrock (NIST), R. Suiter (NIST)