

National Type Evaluation Program
Certificate of Conformance
for Weighing and Measuring Devices

For:

Load Cell
Single Ended Bending Beam
Model: RL1042
 n_{max} : 5000
Capacity: 1 kg to 100 kg (See Table Below)

Accuracy Class: III

Submitted by:

Rice Lake Weighing Systems
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Standard Features and Options

Capacity	v_{max} 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		

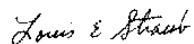
Construction: Aluminum Excitation: 15 volts AC or DC maximum
Nominal output: 2.00 mv/V 4- and 6-wire design

NOTE: 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.

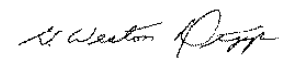
Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of 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.

Effective Date: November 13, 1997



Louis E. Straub
Chairman, NCWM, Inc.



G. Weston Diggs
Chairman, National Type Evaluation Program Committee

Issue date: February 24, 1999

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

Rice Lake Weighing Systems
Single Ended Bending Beam Load Cell
Model: 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 $-10\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$. 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.

Type Evaluation Criteria Used: NIST Handbook 44, 1997 Edition

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

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