

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

For:  
Load Cell  
Single Ended Bending Beam  
Model: RL1521A  
 $n_{\max}$ : 5000  
Capacity: 3 kg to 35 kg (See Table Below)

Accuracy Class: III

Submitted by:  
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Standard Features and Options

Capacity	$v_{\min}$ Single Cell	Minimum Dead Load
3 kg	0.00027 kg	0
5 kg	0.00045 kg	0
7 kg	0.00063 kg	0
10 kg*	0.00090 kg	0
15 kg	0.00135 kg	0
20 kg	0.00180 kg	0
30 kg	0.00270 kg	0
35 kg	0.00315 kg	0

\* Two load cells submitted for evaluation

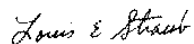
Construction: Aluminum  
Nominal output: 2.00 mv/V

Excitation: 15 volts AC or DC maximum  
4 and 6-wire design

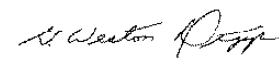
Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

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: October 19, 1998



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: RL1521A**

**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 10-kg capacity load cells were tested at NIST 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  $-10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ . 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, 1998 Edition

**Tested By:** Gary Castro (CA)

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