



NATIONAL TYPE EVALUATION PROGRAM

*Certificate of Conformance*  
*for Weighing and Measuring Devices*

**For:**

Load Cell  
Beam  
Model: RL1218A Series  
 $n_{max}$ : 5000, Class III / Single Cell  
Capacity: 50 kg to 1000 kg (110 lb to 2200 lb)  
  
Accuracy Class: III

**Submitted By:**

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**Standard Features and Options**

- Nominal Output: 2 mV/V
- 6-wire Design
- Material: Aluminum
- Minimum dead load: 0 kg / 0 lb
- Load Cell Parameters: \*capacity evaluated

Capacity (kg)	Capacity (lb)	Single Cell / Class III $n_{max}$ 5 000 $v_{min}$ (kg/lb)
50	110	0.0033 / 0.0072
75	165	0.0050 / 0.011
100*	220	0.0067 / 0.015
150	330	0.0100 / 0.022
200	440	0.0133 / 0.030
250	550	0.0167 / 0.037
300	660	0.0200 / 0.045
500	1100	0.0333 / 0.075
635	1400	0.0420 / 0.093
1000	2200	0.0670 / 0.148

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 April 16, 2019

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## Rice Lake Weighing Systems

### Load Cell / RL1218A Series

**Application:** The load cells may be used in Class III, 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  $v_{\min}$  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 and serial number. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

**Test Conditions:** This certificate was amended based on additional testing and information from the manufacturer. One 250 kg load cell was tested at NIST Force Group using dead weights as the reference standard. The data were analyzed for single load cell applications. The cell was tested over a temperature range of  $-10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ . The temperature effect on zero was measured and a time dependence (creep) test was performed. The cell design is not susceptible to the effects of barometric pressure, therefore this test was not performed. Tests were run on the cell at each temperature. NCWM Publication 14 selection criteria were used to determine cells tested. The results of the testing permitted the adding of the 635 kg and the 1000 kg capacities

**Certificate of Conformance Number 18-133:** One 100 kg load cell was tested at NIST using dead weights as the reference standard. The data were analyzed for single load cell applications. The cell was tested over a temperature range of  $-10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ . The temperature effect on zero was measured and a time dependence (creep) test was performed. The cell design is not susceptible to the effects of barometric pressure, therefore this test was not performed. Tests were run on the cell at each temperature. NCWM Publication 14 selection criteria were used to determine cells tested.

**Evaluated By:** K. Chesnutwood (NIST Force Group)

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2019. NCWM, Publication 14: Weighing Devices, 2019.

**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) 18-133; D. Flocken (NCWM) 18-133A1

### **Examples of Device:**

