



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell
Beam
Model: RL42018A Series
 n_{max} : 5000, Class III / Single Cell
Capacity: 3 kg to 100 kg (6 lb to 200 lb)

Accuracy Class: III

Submitted By: Contact Info. Updated November 2022

Rice Lake Weighing Systems
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Standard Features and Options

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

Capacity (kg)	Capacity (lb)	Single Cell / Class III n_{max} 5000 v_{min} (kg)	Single Cell / Class III n_{max} 5000 v_{min} (lb)
3	6	0.00024	0.00048
5	10	0.0004	0.0008
7	15	0.00056	0.0012
8	16	0.00064	0.00128
10*	20	0.0008	0.0016
15	30	0.0012	0.0024
20	40	0.0016	0.0032
30*	50	0.0024	0.004
50	100	0.0040	0.008
75	150	0.0060	0.012
100	200	0.0080	0.016

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.

Craig VanBuren
Chairman, NCWM, Inc.

Brett Gurney
Chairman, NTEP Committee
Issued: September 3, 2019

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Rice Lake Weighing Systems

Load Cell / RL42018A Series

Application: The load cells may be used in Class III 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 is issued based upon the following tests and upon information provided by the manufacturer. This Certificate supersedes Certificate of Conformance number 18-105 and is issued to add additional capacities and the 6-wire version. A 10 kg load cell was tested at the NMI, the Netherlands. The data were analyzed for single load cell applications. The cell was tested over a temperature range of -10 °C to 40 °C. Tests were run on the 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. NCWM Publication 14 selection criteria were used to determine cells tested.

Certificate of Conformance Number 18-105: This certificate is issued based upon the following tests and upon information provided by the manufacturer. A 30 kg load cell were 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 °C to 40 °C. Tests were run on the 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. NCWM Publication 14 selection criteria were used to determine cells tested.

Evaluated By: K. Chesnutwood (NIST Force Group), NMI The Netherlands 18-105A1

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) 18-105; D. Flocken (NCWM) 18-105A1

Example of Device:

