NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Load Cell
Single-ended Shear Beam
Model: RL30000 & RL30000I
n_{max} Single Cell: 3 000
n_{max} Multiple Cell: 5 000
Capacity: 1 000 lb to 10 000 lb
Accuracy Class: III

Submitted By:
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Standard Features and Options

Standard Features:

- Nominal Output: 3 mV/V
- 4-wire Design
- Alloy Steel

The specific load cells covered by this certificate, where XX = capacity, are listed in table below:

Capacity (lb)	v_{min} (lb) Single	$_{vmin}$ (lb) Multiple	Minimum Dead Load (lb)
1000	0.090	0.075	10
2000	0.180	0.150	20
2500*	0.225	0.187	25
3000	0.270	0.225	30
4000*	0.360	0.300	40
5000-SE	0.450	0.375	50
5000	0.450	0.375	50
10 000	0.900	0.750	100

* Load cells submitted for evaluation

Optional Models:

- RL30001-XX & RL30001I-XX for Counterbored Load Hole
- RL30002 -XX & RL30002I-XX for Through Load Hole
- RL30003 -XX & RL30003I-XX for Load Hole Threaded in Upper Half

Temperature Range: -10 ºC to 40 ºC (14 ºF to 104 ºF)

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.

John Gaccione
Chairman, NCWM, Inc.

Stephen Benjamin
Chairman, National Type Evaluation Program Committee

Issued: May 1, 2014

Rice Lake Weighing Systems

Load Cell / RL30000 & RL30000I

Application: The load cells may be used in Class III scales for both single and multiple 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 supersedes Certificate of Conformance Number 98-043 and is issued to recognize a change to the model designation from RL30000 to RL30000I. No other changes have been made to the device so no additional testing was required. Previous test conditions are listed below as reference.

Certificate of Conformance Number 98-043: This Certificate is issued based on the following tests and on information provided by the manufacturer. Two aluminum alloy 2500 lb capacity load cells were tested at the manufacturer's laboratory and two aluminum alloy 4000 lb 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 °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: NIST Force Group, NIST Office of Weights and Measures 98-043

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 1998. NCWM, Publication 14: Weighing Devices, 1998.

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

Information Reviewed By: R. Suiter (NIST) 98-043; J. Truex (NCWM) 98-043A1

Example of Device: