National Conference on Weights and Measures

15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

Certificate Number: 06-022

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

For:

Force Transducer (Load Cell)

Rocker Column Stainless Steel Compression

Model: RL75114

n_{max}, Class III L, Multiple Cells: 10 000 Capacity: 20 000 lb to 200 000 lb

Submitted by:

Rice Lake Weighing Systems

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Standard Features and Options

Model	Capacity (lb)	v _{min} (lb)
RL75114-20K	20 000	0.8
RL75114-50K	50 000	2.0
RL75114-75K	75 000	3.0
RL75114-100K	100 000	4.0
RL75114-125K	125 000	5.0
RL75114-150K	150 000	6.0
RL75114-200K	200 000	8.0

NOTE: v_{min} for capacities between 20 000 lb and 200 000 lb not listed above may be computed by the formula: $v_{min} \ge capacity / 25 000$

Excitation voltage: 10 VDC Wire design: 4-wire design Nominal output: 2.0 mV/V Material: Stainless steel Dead load: 0 lb

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.

Chairman, NCWM, Inc.

Chairman, National Type Evaluation Program Committee Issue date: February 23, 2006

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Rice Lake Weighing Systems Force Transducer Model: RL75114

Application: The load cells may be used in Class III L scales for 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 v_{min} for which the load cell may be used.

<u>Identification:</u> A pressure sensitive identification badge containing the manufacturer, model designation, and serial number is located on the load cell. All other required information must be on an accompanying document including the serial number of the load cell.

<u>Test Conditions:</u> This certificate is issued based upon the following tests and upon information provided by the manufacturer. Two 50 000-lb capacity load cells were tested at NIST using dead weights as the reference standard. The data were analyzed for multiple load cell applications. The cells were tested over a temperature range of $-10\,^{\circ}$ C to $40\,^{\circ}$ 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 performed to determine the sensitivity of the load cell design to changes in barometric pressure.

Type Evaluation Criteria Used: NIST Handbook 44, 1997 Edition

Tested By: NIST Force Group, NIST Office of Weights and Measures

<u>Conclusion:</u> The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Information Reviewed By: S. Patoray (NCWM), L. Bernetich (NCWM)