National Conference on Weights and Measures

1135 M Street, Suite 110 • Lincoln, NE 68508

Certificate Number: 09-015

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

For:

Load Cell

Single-Point Bending Beam

Model Family: RLPWM15HE Series

n_{max}, Single Cell: 5 000 Capacity: 10 kg to 100 kg Accuracy Class: III

Submitted by:

Rice lake Weighing Systems

230 W Coleman St. Rice Lake, WI 54868 Tel: 715-234-9171

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Standard Features and Options

The specific capacities, v_{min} and minimum dead loads covered by this Certificate are listed in the table below.

Model	Capacity (kg)	v _{min} (kg)	Minimum Dead Load
RLPWM15HE -10kg	10	.002	0
RLPWM15HE -20kg	20 *	.004	0
RLPWM15HE -50kg	50	.010	0
RLPWM15HE -100kg	100	.020	0

^{*} Load cells submitted for evaluation (2)

Nominal output: 2.0 mV/V Maximum excitation voltage: 15 Vdc 6-wire design Material: stainless steel (hermetically sealed)

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.

Jack Kane

Chairman, NCWM, Inc.

Judith L. Cardin

Judith I. Carden

Chairman, National Type Evaluation Program Committee

Issued Date: March 5, 2009

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Rice Lake Weighing Systems Single-Point Bending Beam Load Cell Model Family: RLPWM15HE Series

Application: These 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.

<u>Identification:</u> A pressure sensitive identification badge containing the manufacturer name, 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 manufacturer name, model designation, 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 20 kg capacity load cells were tested using dead weights as the reference standard. The data was analyzed for single cell applications. The load cells were tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). 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: Ken Jones (CA)

Type Evaluation Criteria Used: NIST Handbook 44, 2008 Edition; NCWM Publication 14, 2008 Edition

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

Information Reviewed By: J. Truex (NCWM)

Example of Device:

