National Conference on Weights and Measures

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

Certificate Number: 05-112A1

National Type Evaluation Program

Certificate of Conformance for Weighing and Measuring Devices

For:
Force Transducer (Load Cell)
Bending Beam
Single Point
Model: RLPWM 16
n_{max}: 5000; Single
Capacity: See Table Below

Accuracy Class: III

Submitted by:
Rice Lake Weighing Systems
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Standard Features and Options

Capacity	v_{min} Single Cell	Minimum Dead Load
30 kg*	0.0042	0
50 kg	0.007	0
75 kg	0.011	0
100 kg	0.014	0
150 kg	0.021	0
200 kg	0.028	0
250 kg*	0.035	0
300 kg	0.042	0
500 kg	0.070	0
635 kg	0.089	0
660 kg	0.092	0

* Load Cells submitted for evaluation

Nominal output: 2mV/V
Wire configuration: 6 wire only
Counterforce Construction: Aluminum
Input Bridge Resistance: 350 Ohms (Nominal)
Nominal excitation: 10 v

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.

Mike Cleary
Chairman, NCWM, Inc.

Don Onwiler
Chairman, National Type Evaluation Program Committee

Issued Date: February 12, 2007

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

Rice Lake Weighing Systems
Force Transducer
Model: RLPWM 16

Application: The 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.

Identification: 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.

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 05-112 and is issued to add load cell capacities of 30 kg and 50 kg. Two 30 kg capacity load cells were tested in a 6-wire configuration using dead weights as the reference standard. The data was analyzed for single load cell applications. The 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. Previous test conditions are listed below for reference.

Certificate of Conformance Number 05-112: This certificate is issued based upon the following tests and upon information provided by the manufacturer. Two 250 kg capacity load cells were tested in a 6-wire configuration at the NIST Force Group using dead weights as the reference standard. The data were analyzed for single load cell applications. The 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.

Tested By: T. Bartel (NIST) 05-112; J. Latham (CA). S. Boyd (CA) 05-112A1

Type Evaluation Criteria Used: NIST Handbook 44, 2006 Edition, NCWM Publication 14, 2006 Edition

Conclusion: 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) 05-112, 05-112A1

Example of RLPWM 16, 500kg: