

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For:

Indicating Element Digital Electronic Model: IQ+210-XY*

n_{max}: 10 000

Accuracy Class: III / III L

*Submitted By: Contact Info. Updated January 2010

Rice Lake Weighing Systems 230 West Coleman Street Rice Lake, WI 54868 Tel: 715-234-9171

Fax: 715-234-6967

Contact: Paul A. Lewis, Sr. Email: plewis@ricelake.com
Web site: www.ricelake.com

Standard Features and Options

Standard Features:

- Semi-automatic (push-button) Zero
- Automatic Zero Setting Mechanism (AZSM)
- Initial Zero Setting Only During Calibration
- Gross Display
- lb/kg/g/oz Unit Capability
- RS 232 Communication Port

Option:

- Remote Printer Capability Via a Cable Switch
- The X in the model designation represents enclosure type and will be "2: Stainless Steel" until another enclosure type is offered. 2: Stainless Steel
- The Y in the model designation represents input power and will be a letter.

A: 115 VAC B: 230 VAC

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.

Randy Jennings

Chairman, NCWM, Inc.

Judy Cardin

Chairman, National Type Evaluation Program Committee Issued: May 26, 2000

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Rice Lake Weighing Systems

Indicating Element / IQ+210-XY

Application: A general purpose indicator to be interfaced with an approved compatible weighing element.

<u>Identification</u>: The capacity by division statement and, where applicable, the CLC will appear on an adhesive label on the front of the indicator. The other required information appears on an adhesive label on the side of the indicator.

<u>Sealing</u>: A wire security seal can be threaded through three drilled head screws in the lower left corner of the back panel of the indicator to prevent undetected access to a calibration switch for the set-up and calibration mode.

<u>Test Conditions</u>: The emphasis of the evaluation was on the device design, operation, and compliance with influence factor requirements. Several performance tests were conducted with the indicator interfaced with a Rice Lake Model BM 1212-100 (Certificate of Conformance Number 95-072A2) weighing element and a load cell simulator. The indicator was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Additionally, tests were conducted using power supplies of 100 VAC/130 VAC and 215 VAC/245 VAC.

Evaluated By: T. Lucas (OH), W. West (OH)

<u>Type Evaluation Criteria Used:</u> NIST, <u>Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2000. NCWM, Publication 14: Weighing Devices, 2000.</u>

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



National Conference on Weights and Measures

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Certificate Number: 95-072A2

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

For:

Bench Scale Weighing/Load Receiving Element

Load Cell Electronic

Models: BMXXXX-YYY* Series and RL2100

n_{max}: 5000

e_{min}: 0.001 lb (0.0005 kg) See Below

Capacity: 5 lb (2.5 kg) to 1000 lb (500 kg) See Below

Platform: See Below

Accuracy Class: III

Submitted by:

Rice Lake Weighing Systems 230 West Coleman Street Rice Lake, WI 54868 Tel: (715) 234-9171

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Contact: Deb Harings-Lehman

Standard Features and Options

*The specific model designation for the BM Series covered by this certificate is BMXXXX-YYY where XXXX represents the scale dimensions in inches and the YYY represents the scale capacity in pounds. An "S" following the platform size designates stainless steel frame.

Capacity: BM Series: 5 lb x 0.001 lb to 1000 lb x 0.2 lb (2.5 kg x 0.0005 kg to 500 kg x 0.1 kg)

RL2100: 5 lb x 0.001 lb to 100 lb x 0.02 lb (2.5 kg x 0.0005 kg to 50 kg x 0.01 kg)

Platform size: BM Series: 10" x 10" to 24" x 24"

RL2100: 10" x 10" to 12" x 12"

Frame: Mild or stainless steel Platform material: Stainless steel

Load cell used: Rice Lake Model RL1040-N5 (Certificate of Conformance Number 95-074),

Rice Lake Model RL1250-N5 (Certificate of Conformance Number 95-075).

Rice Lake Model RL1380 (Certificate of Conformance Number 94-128),

Rice Lake Model RL1042 (Certificate of Conformance Number 97-138), or compatible and certified equivalent load cells.

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.

Effective Date: December 28, 1999

Louis E. Straub

Chairman, NCWM, Inc.

G. Weston Diggs

& Wester Days

Chairman, National Type Evaluation Program Committee Issue date: April 5, 2000

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This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

Certificate Number: 95-072A2

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Rice Lake Weighing Systems Bench Scale Weighing/Load Receiving Element Models: BMXXXX-YYY Series and RL2100

Application: For use in general purpose weighing when interfaced with a compatible and certified electronic indicating element.

<u>Identification:</u> The required information is on an approved label located on the base of the weighing element.

Sealing: There are no sealable parameters located on the load receiving element. The scale calibration and set-up parameters are sealed through the indicating element.

<u>Test Conditions:</u> This Certificate supersedes Certificate of Conformance Number 95-072A1 and is issued to add a new model (RL2100) to the existing Certificate. The emphasis of the evaluation was on the device design, marking, performance and compliance with influence factor requirements. Two model RL2100 weighing elements, a 5 lb x 0.001 lb (2.5 kg x 0.0005 kg) and a 100 lb x 0.02 lb (50 kg x 0.01 kg), were evaluated in the laboratory. Several increasing/decreasing load and shift tests were performed. A load of approximately one-half capacity was applied to the scales over 100 000 times. The devices were tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Previous test conditions are repeated below for reference.

<u>Certificate of Conformance Number 95-072A1:</u> This Certificate superseded Certificate of Conformance Number 95-072 and was issued to amend the original test conditions to include an additional capacity of the scale family that was submitted and tested but not included.

<u>Certificate of Conformance Number 95-072:</u> The emphasis of the evaluation was on the device design, marking, performance and compliance with influence factor requirements. Two weighing elements, a 5 lb x 0.001 lb (2.5 kg x 0.0005 kg) and a 1000 lb x 0.2 (500 kg x 0.1 kg), were evaluated in the laboratory. Several increasing/decreasing load and shift tests were performed. A load of approximately one-half capacity was applied to the scales over 107 280 times. The devices were tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F).

The results of the evaluations indicate the scales comply with applicable requirements of NIST handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 2000 Edition

<u>Tested By:</u> W. West & A. McCoy (OH) 95-072; A. McCoy (OH) 95-072A1; A. McCoy & E. Matthews (OH) 95-072A2