### **National Conference on Weights and Measures**

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

Certificate Number: 92-013A4

Page 1 of 3

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

For:

**Indicating Element** Digital Electronic

Models: IQ+800-XY and IQ+810-XY

n<sub>max</sub>: 10 000

Accuracy Class: III/III L

Submitted by:

Rice Lake Weighing Systems 230 West Coleman Street Rice Lake, WI 54868-0272 Tel: (715) 234-9171

Fax: (715) 234-6967

Email: plewis@ricelake.com

Contact: Paul Lewis

#### **Standard Features and Options**

Semi-automatic (push-button) zero Automatic zero (AZSM) setting mechanism Initial zero setting only during calibration RS-232

Kevboard tare

Semi-automatic (push-button) tare

Multiple tare memories AC power

Gross/tare/net display Pound/kilogram conversion

Alphanumeric display

Multiple load receiving elements

In/out vehicle weighing Accumulate function

Model IQ+800-XY: Stainless steel desktop version of the Model IQ+810-XY

*The model suffix X Y designates the following:		
X - Enclosure Type	Y	- Input Power
1 = FRP Nema 4X	O = 100 VAC	D = 100 VAC with battery
2 = Stainless Steel Nema 4X	A = 115  VAC	E = 115  VAC with battery
3 = Desktop Nema 4	B = 230  VAC	F = 230  VAC with battery
	C = 12  VDC (external)	

**Options:** Remote keyboard Multiple range

RS-485 communication ports

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

adeth I. Carden

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.

Judith L. Cardin NCWM, Inc.

Don Onwiler Chair.

Chairman, National Type Evaluation Program Committee

Issue date: August 22, 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.

Certificate Number: 92-013A4

Page 2 of 3

#### Rice Lake Weighing Systems Indicating Element Models: IQ+800-XY and IQ+810-XY

**Application:** For use as a general purpose indicating element attached to single or multiple certified and compatible weighing elements.

**Identification:** The required information is on a label on the rear or side of the indicator. The capacity x division statements and, where applicable, the CLC will appear on an adhesive label on the front of the indicator.

**Sealing:** Model IQ+810-XY: A wire security seal is threaded through a hole in the head of a screw or latch and a tab/drilled hole. If the tab is used, it must be secured in a groove on the case so it does not rotate.

Model IQ+800-XY: A wire security seal is threaded through the holes in two screws which hold a cover plate in place which prevents access to the calibration switch and opening of the enclosure.

Operation: The indicator provides gross, tare, and net display modes. Tare values may be recalled at any time. Programmable parameters are accessed by means of a calibration switch, and programming is performed using the keyboard to scroll through the menus. The unit is capable of powering up to sixteen 350 ohm load cells unless an external battery is used. The indicator may be connected to as many as four (4) load receiving elements and can give individual weights and/or the summed weights of all load receiving elements. The accumulator can increase by weights entered either automatically by the set-points or manually by a user pressing the PRINT key when the accumulate function is active. To verify that the accumulate function is ON press the DISP ACCUM key. If ON, the ACCUM annunciator on the left side of the display will light. The accumulated weight can be cleared by pressing the DISP/ACCUM key until the total accumulated weight is displayed and then press the CLEAR key twice.

<u>Test Conditions:</u> This Certificate supersedes Certificate of Conformance number 92-013A3 and was issued without additional testing to reactive the Certificate without lapse. Changes were also made to update the contact information.

<u>Certificate of Conformance Number 92-013A3:</u> This Certificate supersedes Certificate of Conformance Number 92-013A2 and is issued to add the multiple range feature and the accumulate function. The emphasis of the evaluation was on the performance, operation, and the printed ticket format. No additional testing was deemed necessary. Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 92-013A2</u>: This Certificate superseded Certificate of Conformance Number 92-013A1 and was issued to add the multiple load receiving elements. The emphasis of the evaluation was on the performance of the weigh-in/weigh-out operation, markings, and the printed ticket format. No additional testing was deemed necessary.

Certificate of Conformance Number 92-013A1: This Certificate was issued to add the Model IQ+800 and superseded Certificate of Conformance Number 92-013. The emphasis of the evaluation was on the marking requirements and the operation of the scale with multiple load receiving elements. The Model IQ+800 is identical to the Model IQ+810 except that its enclosure is constructed of stainless steel. No additional testing was deemed necessary.

<u>Certificate of Conformance Number 92-013:</u> The emphasis of the evaluation was on the device design, operation, marking requirements, and compliance with influence factor requirements. The indicator was interfaced with a weighing element for the purpose of this evaluation. The indicator was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Additionally, tests were conducted using 100 VAC and 130 VAC.

Certificate Number: 92-013A4

Page 3 of 3

# Rice Lake Weighing Systems Indicating Element Models: IQ+800-XY and IQ+810-XY

Type Evaluation Criteria Used: NIST Handbook 44, 1999 Edition

**Conclusion:** The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

<u>Tested By:</u> B. Badenhop, J. Truex (OH) 92-013 & 92-013A1, W. West (OH) 92-013A2, A. McCoy (OH) 92-013A3, S. Patoray (NCWM) 92-013A4, L. Bernetich (NCWM) 92-013A4

#### Examples of Models IQ+800-XY and IQ+810-XY:

#### [Insert photos]





IQ+810 IQ+800