



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Models: IQ+390-DC, IQ+590-DC and 390HE-Y*
 n_{max} : 10 000
Accuracy Class: III / III L

***Submitted By: Contact Info. Updated January 2010**

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Standard Features and Options

Standard Features:

- Semi-automatic (push-button) Zero
- Automatic Zero Setting Mechanism
- Initial Zero Setting Only During Calibration
- Semi-automatic (push-button) Tare
- AC/DC Adaptor
- Remote Printer Capability
- Gross/Net Display
- lb/kg/g/oz/tons/metric tons Unit Capability
- RS 232 Connector
- Battery Operation
- Standby Mode*(see page 2 for operation)

Model 390HE:

- Housed In A FRP (Fiberglass Reinforced Polyester) Enclosure
- *The Y In the Model Designation Represents Input Power and Will be a Letter, A: 115VAC, B: 230VAC

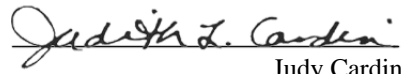
Model IQ+590-DC Additional Features:

- Keyboard Tare
- 19 Button Keyboard

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.


Judith Cardin
Chairman, National Type Evaluation Program Committee
Issued: May 10, 2000

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Rice Lake Weighing Systems

Indicating Element / IQ+390-DC, IQ+590-DC and 390HE-Y

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

Identification: 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.

Sealing:

390HE: A drilled head screw that secures the front panel to the indicator housing is located in the upper right corner. A wire security seal can be threaded through this screw and a small hole located in the upper right side of the housing behind the drilled screw head and back housing come together. This prevents undetected access to a switch that must be depressed to enter the setup and calibration mode.

IQ+390-DC and IQ+590-DC: A drilled head screw covers and prevents undetected access to a switch that must be depressed to enter the setup and calibration mode. It is on the lower right side of the back of the indicator. A wire security seal can be threaded through this screw head and another drilled head screw that secures the back cover of the indicator.

Operation: Standby mode is a configurable low power mode used to lengthen battery life when the indicator is inactive. The standby feature works like Auto-Off except that some power is supplied to the processor and the indicator displays the letters "STNDBY." To exit the standby mode and return to active mode, press any key on the indicator.

Test Conditions: This Certificate supersedes Certificate of Conformance Number 98-203A1 and is issued to add the model 390HE housed in an FRP (Fiberglass Reinforced Polyester) enclosure for harsh environments. The emphasis of the evaluation was based on the new housing. A model 390HE indicator was submitted for evaluation interfaced with a Rice Lake Model BM1212-100 weighing element. Several tests were conducted to confirm the structure of the FRP housing. No further testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance Number 98-203A1: This Certificate superseded Certificate of Conformance Number 98-203 and was issued to add the model IQ+ 590-DC with keyboard tare capability. It was also issued to remove the "initial zero setting mechanism" standard feature and replace it with "initial zero during calibration." The emphasis of the evaluation was on keyboard tare entry. A model IQ+590-DC Indicator was submitted for evaluation interfaced with a Rice Lake Model BM1212-50 weighing element. Several tests were conducted to confirm the operation of the keyboard tare option. No further testing was deemed necessary.

Certificate of Conformance Number 98-203: 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 BM1212-100 scale base. A load cell simulator and was also used for the 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 power supplies of 100 VAC and 130 VAC, and of 5.6 VDC and 10.0 VDC.

Evaluated By: W. West (OH) 98-203; W. West (OH) 98-203A1; T. Lucas (OH), W. West (OH) 98-203A2

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

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