

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

For:

Indicating Element
 Digital Electronic
 Models: IQ+310-XY, IQ+310A-XY,
 310HE-XY, 320HE-XY and 330HE-XY*
 n_{max} : 10 000
 Accuracy Class: III/III L

Submitted by:

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Standard Features and Options

- | | |
|-----------------------------------|-----------------------------------|
| Semi-automatic (push-button) zero | Pound/kilogram conversion |
| Automatic zero-setting mechanism | Gross/tare/net display capability |
| Variable print format | Semi-automatic (pushbutton) tare |
| Alphanumeric display | Gross/net display modes |

* The model suffixes XY designate the following:	
X = Enclosure type	Y = Power input
A = Painted with tilt stand	O = 100 volts AC
B = Painted with panel mount kit	A = 120 volts AC
D = Painted NEMA 4 with tilt stand	B = 220 volts AC
E = Painted NEMA 4 with panel mount	C = 12 volt dc external power supply
F = Painted	
G = Painted NEMA 4	
1 = FRP NEMA 4	

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: May 28, 1996

Louis E. Straub

Louis E. Straub
 Chairman, NCWM, Inc.

G. Weston Diggs

G. Weston Diggs
 Chairman, National Type Evaluation Program Committee

Issue date: March 3, 1997

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.

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

**Rice Lake Weighing Systems
Indicating Element
Models: IQ+310-XY, IQ+310A-XY,
310HE-XY, 320HE-XY and 330HE-XY Series**

Application: General purpose weighing.

Identification: The identification badge is on the rear of the indicator. The manufacturer's name, the model number, accuracy class, and a space for the serial number and CLC are on the front panel

Sealing: A wire seal may be threaded through holes in two screws on the rear of the device to prevent access to the set-up/calibration mode of the indicator. The plate that covers the set-up/calibration switch is held in place by one screw with a hole through it, while the other screw is on the indicator's frame. This screw prevents removing the inner electronics from the outer case. Parameters can be viewed and changed only in the set-up mode.

The Model 310HE-XY may be sealed with a wire seal threaded through the head of a screw on the lower right front of the face and a hole on the lower side of the indicator housing.

The Model 330HE-XY may be sealed with a wire seal threaded through the head of a screw on the upper right front of the face and a hole on the upper side of the indicator housing.

Operation: The indicator provides gross, tare, and net display modes. Tare values may be recalled anytime. Programmable parameters are accessed by means of a calibration switch and programming is performed using the keyboard to scroll through the menus.

Test Conditions: This Certificate supersedes Certificate of Conformance (CC) No. 91-132A2 and is issued without additional testing to include the Model 320HE-XY. The Model 320HE-XY is identical to the Model 310HE-XY and the 330HE-XY except the 320HE-XY uses a 2-inch LCD display, has a larger FRP enclosure than the 310HE-XY (but smaller than the 330HE-XY), and may be sealed with a wire seal threaded through the head of a screw on the upper right front face and a hole on the upper side of the indicator housing. The electronics and operation of Model 320HE-XY are identical to Models IQ+310-XY, IQ+310A-XY, 310HE-XY and the 330HE-XY. Previous test conditions are repeated below for reference.

Certificate of Conformance Number 91-132A2: This Certificate was issued without additional testing to include the Model 330HE-XY. The Model 330HE-XY is identical to the Model 310HE-XY except for a 3-inch LCD display, a larger FRP enclosure, and sealing differences. The electronics and operation of Model 330HE-XY are identical to Models IQ+310-XY and IQ+310A-XY.

Certificate of Conformance Number 91-132A1: This Certificate was issued to include the Models IQ+310A-XY and 310HE-XY. The Model IQ+310A-XY is identical to the Model IQ+310-XY but uses different circuit boards. The emphasis of the evaluation was on compliance with influence factors. The Model IQ+310A-XY was tested for accuracy over a temperature range of $-10\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$ ($14\text{ }^{\circ}\text{F}$ to $104\text{ }^{\circ}\text{F}$). The electronics and operation of Model 310HE-XY are identical to Models IQ+310-XY and IQ+310A-XY. The Model 310HE-XY, with the new enclosure and method of sealing, was evaluated in the laboratory and no further testing was deemed necessary.

Certificate of Conformance Number 91-132: The emphasis of the examination was on the device design, operation, marking requirements, and compliance with influence factor requirements. The indicator was interfaced with a load cell simulator and tested for accuracy over a temperature range of $-10\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$ ($14\text{ }^{\circ}\text{F}$ to $104\text{ }^{\circ}\text{F}$). In addition, the indicator was interfaced with a load cell and weighing platform for discrimination, power interruption, and zero tests.

The results of these evaluations indicate that the devices comply with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1996 Edition

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