



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: X112-B Series i20 / i30 / i35 / i40
 n_{max} : 10 000
Accuracy Class: III/IIIL

Submitted By:

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Standard Features and Options

- Automatic Zero Tracking (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (Push Button) Zero
- Center of Zero Annunciator
- Semi-Automatic (Push Button) Tare
- Keyboard Tare
- Multiple Tare Memories
- Programmable Tare
- DC Power (24 VDC Nominal) DC battery (i20/i40)
- AC Power Supply (100-240 VAC Range) all models
- Alphanumeric Display
- Gross/Net Display
- Liquid Crystal Display (LCD)
- Communication Ports: RS-232, RS-485, 4-20 mA, Digital I/O, USB, Ethernet, and Bluetooth
- Linearity Calibration Points (6)
- Units: lb, kg, g
- Traffic light management (i30/i35)

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.

Marc Paquette
Chair, NCWM, Inc.

Gene Robertson
Chair, NTEP Committee
Issued: December 20, 2024

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Precia Molen, NA.
Indicating Element / X112-B Series

Application: A general purpose indicating element to be interfaced with an NTEP certified and compatible weighing element.

Identification: All required markings are on an adhesive label on the bottom (i20) or side (i30/i35/i40) of the X112-B series indicators that leave a “checker board” pattern if removed.

Sealing: The indicators can be sealed with a lead and wire seal threaded through two drilled fillister head screws on the back (or bottom) of the indicator (depending on mounting type). This unit also includes a Category 2 Audit Trail. The device may be sealed with a physical seal and/or the inspector may record the audit trail event counter at the time of test. To view the Calibration and Configuration Counters press the “M” key then press the “right arrow” key (i20/i30/i35) or press the “right arrow” key until you see “Met. Info” then press “Enter” (i40).

Test Conditions: This Certificate supersedes Certificate of Conformance Number 17-015A1 and was issued without additional testing to reactivate Certificate of Conformance 17-015A1 without lapse and to update the company contact information. Previous test conditions are listed below for reference.

Certificate of Conformance 17-015A1: This certificate supersedes Certificate of Conformance 17-015 and is issued to add the X112-B (i30) and X112-B (i35) models to this certificate. The emphasis of this evaluation was on the device design, operation, marking requirements, performance, and compliance with influence factors. A model i30 and an i35, part of the X112-B series of indicating elements were connected to load cell simulators to verify zero, power interruption and printing format and a light simulator to verify traffic light management. The indicators were connected to a scale base to verify motion detection and discrimination. There were several increasing/decreasing tests, a warm up test and AC voltage test at 85 VAC and 264 VAC performed. The indicating elements were evaluated over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Previous test conditions are listed below for reference.

Certificate of Conformance 17-015: Two model X112-B indicating elements were submitted for evaluation. The emphasis of this evaluation was on the device design, operation, marking requirements, performance, and compliance with influence factors. A model i20 and an i40, part of the X112-B series of indicating elements, were connected to a load cell simulator to verify zero, motion detection, power interruption, and printing format. Other tests completed were several increasing/decreasing tests, a warm up test, AC voltage test at 85 VAC and 264 VAC, and a DC voltage test at 24 VDC and 26.4 VDC. The indicating element was evaluated over a temperature range of -10 °C to 40 °C (14 °F to 104 °F).

Evaluated By: J. Morrison (OH) 17-015, J. Gibson (OH) 17-015A1; B. Maser (NCWM) 17-015A2 (CN 11284)

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2017 Edition. *NCWM Publication 14 Weighing Devices*, 2017 Edition.

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

Information Reviewed By: J. Truex (NCWM) 17-015, 17-015A1; D. Flocken (NCWM) 17-015A2



Precia Molen, NA.
Indicating Element / X112-B Series

Examples of Device:



X112-B (i20) with stainless steel housing



X112-B (i40) with DIN rail mounting



X112-B (i30)



X112-B (i35)