



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: 750
 n_{max} : 10 000
Accuracy Class: III

***Submitted By: Contact Info. Updated December 2022**

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Standard Features and Options

- Automatic Zero Tracking (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (push button) Zero Setting Mechanism (SAZSM)
- AC Power (100 VAC to 240 VAC)
- DC Power (12 VDC)
- Alphanumeric Display
- Liquid Crystal Display (LCD)
- Communication (RS232, Wi-Fi, Bluetooth)
- Units of Measure (lb & kg)
- Motion Detection
- Power Saving Feature (Automatic Shutoff)
- Semi-Automatic (push-button) Tare
- Remote Printer Capability
- Category 1 audit trail
- Category 1 physical lead wire seal with an option to seal the enclosure and calibration button access with pressure sensitive seals

This device was evaluated under the National Type Evaluation Program 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. *Editorial changes, not affecting the type or metrological content, corrected this certificate.

Ivan Hankins
Chair, NCWM, Inc.

Hal Prince
Chair, NTEP Committee
Issued: May 16, 2022

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Cardinal Scale Manufacturing Co
Indicating Element / 750

Application: Non-Computing digital electronic indicating element for use with an NTEP certified and compatible weighing/load receiving element.

Identification: The capacity by division statement is marked on the front of the device adjacent to the weight display. All other required markings can be found on a label on the back of the indicator that will self-destruct if attempted to be removed.

Sealing: Category 1 physical seal: The setup/calibration jumper switch is accessed inside the indicator housing by separating the side covers from the main enclosure. The side covers are secured with two screws each, one of which can have a drilled head, allowing installation of a physical lead-wire security seal. Access to the configuration and calibration operations is achieved by turning the indicator off, removing the calibration jumper, turning the indicator on, then replacing the calibration jumper. The indicator automatically returns to weighing mode after all setup/calibration steps are complete.

To access the Category 1 Audit trail: With the indicator off, press and hold the PRINT key, then press the ON/OFF key. The indicator will enter a self-test routine, display the model number and software revision, then show "CAL CH" (Calibration Check) for two (2) seconds followed by two 3-digit numbers. [Note: Release the PRINT key as soon as the display shows "CAL CH".] The left number represents the setup Configuration counter; the right number represents the Calibration counter. To return to normal operation, print the PRINT key.

Test Conditions: The emphasis of the evaluation was on the device design, operation, marking requirements, performance, and compliance with influence factors. A Cardinal Scale Model 750 Indicating element was interfaced with a load receiving element to verify compliance with zero, zone of uncertainty and motion detection requirements. A load cell simulator was interfaced to the indicating element and multiple increasing/decreasing tests were performed. The device was tested over a temperature range of -10° C to 40° C (14° F to 104° F). Voltage Tests were conducted using 85 VAC, 120 VAC, 264 VAC, 11VDC, 12 VDC and 13.2 VDC. Wireless communication was verified.

Evaluated By: C. Boggs (OH)

Type Evaluation Criteria Used: *Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2022 Edition. *NCWM Publication 14: Weighing Devices*, 2022 Edition.

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

Information Reviewed By: D. Flocken (NCWM)



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Indicating Element / 750

Example of Device:

