



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: D70 ES
 $n_{\max}$: 10 000
Accuracy Class: III / III L

Submitted By:

B-TEK Scales, LLC
1510 Metric Ave, S.W.
Canton, OH 44706
Tel: 800-266-8900
Fax: 330-471-8909
Contact: Jason Paulus
Email: jpaulus@bscales.com
Web site: www.B-TEK.com

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
- AC Power Supply (120 VAC)
- Alphanumeric Display
- Gross/Net Display
- Light Emitting Diode (LED) Display
- Linearity Calibration Points (3)
- Unit Conversion: lb, kg, oz (2)
- Weigh-in / Weigh-out
- 4-20 mA Current loop
- RS-232 printer/communication port with variable print formats
- Selectable RS-232/RS-422/RS-485 second communication port

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.

Mahesh Albuquerque
Chair, NCWM, Inc.

Ivan Hankins
Chair, NTEP Committee
Issued: June 1, 2023

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

The National Conference on Weights and Measures (NCWM) 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.



B-TEK Scales, LLC
Indicating Element / D70 ES

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 top of the indicator that self-destructs if removed.

Sealing: When set to “Hardware Seal” the indicator can be sealed with a lead and wire seal threaded through two drilled fillister head screws on the back of the indicator. This prevents access to the Calibration switch on the main board and access to the scale parameters. When set to “Software Seal” the indicator can be calibrated and configured with the menu button on the front of the indicator. This enables the “Category 2 Audit Trail.” The device may still be sealed with a physical seal as described above, or the inspector may record the audit trail event counter at the time of the test. To view the Calibration and Configuration Counters, press and hold the Units key for a few seconds.

Test Conditions: This certificate is issued based upon the following tests and upon information provided by the manufacturer. A model D70 ES indicating element was submitted for evaluation. This evaluation emphasized the device design, operation, marking requirements, performance, and compliance with influence factors. A model D70 ES indicating element was connected to a load cell simulator and scale base in order to verify zero, zone of uncertainty, motion detection, power interruption, and printing format. Other tests completed were several increasing/decreasing tests, a warm-up test, and the AC voltage test at 100 VAC and 130 VAC. 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) (CN 10813)

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*, 2016 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)

Examples of Device:



D70 ES with Stainless Steel housing



D70 ES Back showing wire seal