NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Weighing/Load Receiving Element
Digital Electronic
Model: BSQ-XXYY-CCC
Capacity: See page 2
n_{max}: 10 000
Platform: 12” x 14” (304.8 mm x 355.6 mm) rectangular
6.25” (158.8 mm) round
Accuracy Class: III

Submitted By:
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Standard Features and Options

- Alloy Frame
- Single Point Load Cell
- RS232
- USB
- DC Power (12-36 VDC)
- Relay Control
- Ethernet
- Wireless Communication
- Draft Shield
- Ball Top Shroud
- Weighing/Load Receiving Element (Stand Alone)

Software Version: 1.0.0.0 thru 1.1.9.9 is the software version for using the BSQ as a weighing/load receiving element only. 1.2.0.0 and higher is the software version for using the BSQ as a computing scale or weighing/load receiving element, verify the software version before inspection and testing.

Model Designation Suffixes:
XX= Length
YY= Width
CCC= Capacity -001=1kg, -005=5kg, -035=35kg, -080=80kg

Load Cells Used: AWTX models DC-1100-111-10, 110 kg, DC-0380-111-10, 38 kg, DC-0060-111-10, 6 kg, and DC-0015-111-10, 1.5 kg (non NTEP)

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.

James Cassidy
Chairman, NCWM, Inc.

Kristin Macey
Committee Chair, National Type Evaluation Program Committee

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Avery Weigh-Tronix

Weighing/Load Receiving Element / BSQ-XXYY-CCC

Application: A general purpose weighing/load receiving element to be used in postal, point-of-sale, and general weighing applications when connected with a physical or wireless connection to a certified and compatible Avery Weigh-Tronix indicating element. A computing scale to be used in postal, point-of-sale, and general weighing applications when connected with a physical or wireless connection to a PC. Utilizing the predefined commands to obtain metrologically correct information and calculations.

Identification: The required G.S.1 information can be found on an adhesive label on the side of the device. Labels for capacity and division will be identified on an adhesive label that will self-destruct when removed.

When used as a computing scale, the required G.S.1 information will be accessible via the weights & measures icon displayed on the primary screen of the application software on a PC, tablet, or phone.

Sealing: A category 1 physical seal is used by sealing the connective **Ethernet** cable to the load receiving element by threading a wire security seal through two pre-drilled screws securing the **Ethernet** cable to the weighing/load receiving element and then securing the housing together (see photo below). All calibration and configuration are retained in the compatible Avery Weigh-Tronix indicating element.

Models and Capacities:

Note: The number of divisions for each weighing range (segment) must meet Table 3 of NIST Handbook 44 Scales Code. The capacity and verification scale division must be conspicuously marked near the weight display.

Model	Capacity	e_{min}	n_{max}	Single Range	Multi-Range
BSQ-0912-001	1 kg 2 lb 32 oz	0.1 g 0.0002 lb 0.005 oz	10 000	Yes	No
BSQ- 912-005	5 kg 10 lb 160 oz	0.1 g 0.0002 lb 0.005 oz	10 000	Yes	Yes
BSQ-0912-035	35 kg 70 lb 1120 oz	1 g 0.002 lb 0.05 oz	10 000	Yes	Yes
BSQ-1214-035	35 kg 70 lb 1120	1 g 0.002 lb 0.05 oz	10 000	Yes	Yes
BSQ-1214-080	80 kg 175 lb 2800 oz	2 g 0.005 lb 0.1 oz	10 000	Yes	Yes

Test Conditions: This certificate supersedes Certificate of Conformance 15-028 and was issued to add price computing capability to the Avery Weigh-Tronix Model: BSQ. For this evaluation a model: BSQ- 912-005 was submitted for evaluation; A terminal application was connected to the USB connection on the BSQ. Defined commands were tested to request weight, price, and set the price per unit and multiple weight and price points were evaluated to assure correct computing and rounding functions. Tests were conducted to ensure the software commands to retrieve the information about the BSQ are in accordance with the software identification and marking requirements. Allowing application software to display the information for kiosk, point of sale, or other general weighing applications when connected to a PC. Previous test conditions are listed below for reference.

Certificate of Conformance Number 15-028: The emphasis of this evaluation was on device design, performance, operation, and marking requirements. For this evaluation the following models were submitted to laboratory for test purposes; Avery Weigh-Tronix model's BSQ-0912-001, BSQ- 912-005, BSQ-1214-035, and a BSQ-1214-080 interfaced with Avery Weigh-Tronix model ZP900 and ZM405 indicating element. The devices were submitted to discrimination tests, shift tests, and several increasing/decreasing load tests. Each device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to each device over 100 000 times and tested periodically during this time. Since these devices can either be a single range or a multi-range, the multi-range devices were configured for two (2) ranges and tested to verify that the devices performed in accordance with the requirements for a multi-range device.

Evaluated By: E.A. Payne, Jr (MD) 15-028; J. Gibson (OH) 15-028A1

Avery Weigh-Tronix

Weighing/Load Receiving Element / BSQ-XXYY-CCC

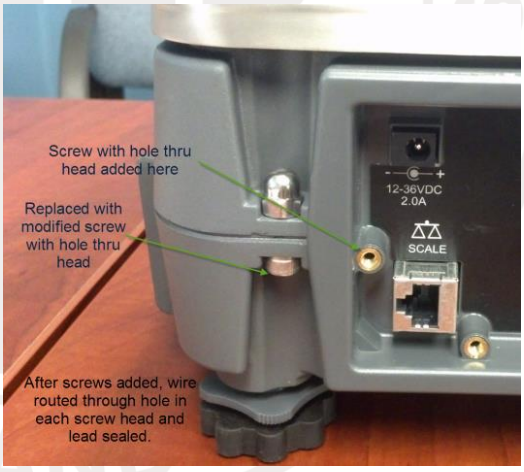
Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2018 Edition. *NCWM Publication 14 Weighing Devices*, 2018 Edition.

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) 15-028, 15-028A1

Examples of Device:

BSQ-0912-001 or BSQ-0912-005

BSQ-0912-035

BSQ-1214-035 or BSQ-1214-080