NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Non-Computing Scale
Postal Weight Classifier, Digital Electronic
Model: BC
n_{max}: 5600
e_{min}: 0.005 lb / 0.05 oz / 0.001 kg
Capacity: 3 lb to 300 lb (3 kg to 150 kg)
Platform: 7.75 in x 7.75 in to 24 in x 32 in
Accuracy Class: III

Submitted By:
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Standard Features and Options

Standard Features:

- Semi-Automatic (push button) Zero Setting Mechanism (SAZSM)
- Automatic Zero Tracking (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (push button) Tare
- Units Switching Capability (lb, kg, g, lb/oz)
- Multiple Range and Multi-Interval Capability
- Liquid Crystal Display (LCD)
- AC/DC Adapter (scale may also be powered via USB port)
- Weight Classifier Mode (For Postal Use)
- USB, serial communication interface for data output to host system
- Bluetooth and Ethernet communication
- Plastic, Stainless, Roller or Ball Top platters

Load Cells Used:

- Mettler Toledo, model 0785, 0795 (non-NTEP), model MT1041 (NTEP CC 11-088) and model SLP33xD (NTEP CC 12-060) or NTEP Certified Compatible and equivalent
- AMI part number 72184997 (non-NTEP)

Temperature Range: 0 ºC to 40 ºC (32 ºF to 104 ºF)

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
Chairman, National Type Evaluation Program Committee

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Mettler-Toledo, LLC

Non-Computing Scale / BC

Application: The scale is suitable for general purpose weighing or suitable for weighing letters or parcels for delivery by the U.S. Postal Service or private shipping companies. In a commercial application the requirements for the displayed weight and the weighing operation is to be visible by the customer can be satisfied by equipment positioning and the use of an optional remote weight display. The scale shall be marked with the words "WEIGHT CLASSIFIER FOR POSTAL USE" when used as a weight classifier.

Capacity	d	n_{max}	Platter
5 lb	0.1 oz	800	7.75 in x 7.75 in
10 lb	0.1 oz	1600	7.75 in x 7.75 in
15 lb	0.1 oz	2400	7.75 in x 7.75 in
15/30 lb	0.1/0.2 oz	2400	10.75 in x 11.5 in
15/30 lb	0.005/0.01 lb	3000	10.75 in x 11.5 in
30 lb	0.01 lb	3000	10.75 in x 11.5 in
3/15 kg	1/5g	3000	10.75 in x 11.5 in
7/70 lb	0.05/0.2 oz	2240/5600	11.75 in x 13.75 in
70 lb	0.02 lb	3500	11.75 in x 13.75 in
15/30 kg	5/10 g	3000	11.75 in x 13.75 in
112/1120 oz	0.1/0.2 oz	1120/5600	16 in x 20 in
7/70 lb	0.01/0.02lb	700/3500	11.75 in x 13.75 in
7/15/70 lb	0.05/0.1/0.2 oz	2240/2400/5600	11.75 in x 13.75 in
3/6/35 kg	1/2/10g	3000/3500	11.75 in x 13.75 in
10/100 lb	0.1/0.5oz	1600/3200	11.75 in x 13.75 in
10/100 lb	0.01/0.02 lb	1000/5000	11.75 in x 13.75 in
60 kg	20 g	3000	24 in x 32 in
150 lb	0.05 lb	3000	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
10/70/149	0.1/0.2/0.5 oz	1600/5600/1768	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
10/70/150 lb	0.1/0.2/0.5oz	1600/5600/4800	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
7/20/149 lb	0.1/0.2/1.0 oz	1120/1600/2384	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
7/20/150 lb	0.1/0.2/1.0 oz	1120/1600/2400	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
10/70/149 lb	0.01/0.02/0.05 lb	1000/3500/2980	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
10/70/150 lb	0.01/0.02/0.05 lb	1000/3500/3000	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
5/30/60 kg	5/10/20 g	1000/3000/3000	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
150/300 lb	0.05/0.1 lb	3000/3000	16 in x 20 in / 24 in x 32 in
60/150 kg	20/50 g	3000	11.75 in x 13.75 in / 16 in x 20 in / 24 in x 32 in
300 lb	0.1lb	3000	16 in x 20 in

Mettler-Toledo, LLC

Non-Computing Scale / BC

Identification: The required information is on an adhesive badge which displays "VOID" when removed and is located on the base unit. It is visible by removing the scale platter.

Sealing: The scale can be sealed with a wire security seal threaded through a plug and a tab on the base, and a screw head to a tab on the cover plate, which secures the access to the metrological switch. This prohibits modification to the set-up and calibration features on the electronic circuit board assembly. (See examples below)

Test Conditions: This Certificate supersedes Certificate of Conformance 13-111A4 and is issued to include additional models in the table. Models included are 10/70/149 lb x 0.1/0.2/0.5 oz, 7/20/149 lb x 0.1/0.2/1.0 oz and 10/70/149 lb x 0.01/0.02/0.05 lb. Added additional statement, suitable for general purpose weighing, in the application section. Based on information supplied by the manufacturer and a review of the previous certificates and test conditions no additional testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance 13-111A4: This Certificate supersedes Certificate of Conformance 13-111A3 and is issued to include additional models in the table. Models included are 5 lb x 0.1 oz, 10 lb x 0.1 oz and 15 lb x 0.1 oz. Added additional statement, suitable for general purpose weighing, in the application section. Based on information supplied by the manufacturer and a review of the previous certificates and test conditions no additional testing was deemed necessary.

Certificate of Conformance 13-111A3: This Certificate supersedes Certificate of Conformance 13-111A2 and is issued to correct d value type error in the table for 60 / 150 kg model and include additional multiple range configuration models in the table that were omitted when the table was included in the certificate. Also include a new build 7/70 lb x 0.05/0.2 oz and a larger platter size of 24 in x 32 in. A model BC 7/70 lb x 0.05/0.2 oz and 150 lb x 0.05 lb (60 kg x 0.02 kg) were submitted for evaluation. Several increasing/decreasing load and shift tests were performed. A discrimination zone of uncertainty test and suitability of level indicator test was performed. Also, a power supply of 100 VAC and 240 VAC and 5 VDC was applied to the scales. The devices were tested over a temperature range of 0 °C to 40 °C (32 °F to 104 °F). A load of approximately one-half scale capacity was applied to the scales over 100 000 times. The scales was tested periodically during this period. The shift and discrimination zone of uncertainty tests were repeated after the permanence test.

Certificate of Conformance 13-111A2: This Certificate supersedes Certificate of Conformance 13-111A1 and is issued to include smaller emin of 0.005 lb, 0.05 oz and 0.001 kg. Two model BC (15/30 lb x 0.005/0.01 lb and 3/15 kg x 1/5 g), two model BC (3/7/70 lb x 0.05/0.1/0.2 oz and 3/6/35 kg x 1/2/10 g) were submitted for evaluation. Several increasing/decreasing load and shift tests were performed. A discrimination zone of uncertainty test and suitability of level indicator test was performed. Also, a power supply of 100 VAC and 240 VAC and 5 VDC was applied to the scale. The devices were tested over a temperature range of 0 °C to 40 °C (32 °F to 104 °F). A load of approximately one-half scale capacity was applied to the scales over 100 000 times. The scales was tested periodically during this period. The shift and discrimination zone of uncertainty tests were repeated after the permanence test.

Certificate of Conformance 13-111A1: This Certificate supersedes Certificate of Conformance 13-111 and is issued to increase the capacity to 300 lb (150 kg) and include a larger platter size of 16 in x 20 in. Two model BC were submitted (300 lb x 0.1 lb and 150 kg x 0.05 kg) for evaluation. Several increasing/decreasing load and shift tests were performed. A discrimination zone of uncertainty test and suitability of level indicator test was performed. Also, a power supply of 100 VAC and 240 VAC and 5 VDC was applied to the scale. The devices were tested over a temperature range of 0 °C to 40 °C (32 °F to 104 °F). A load of approximately one-half scale capacity was applied to the scales over 100 000 times. The scales was tested periodically during this period. The shift and discrimination zone of uncertainty tests were repeated after the permanence test.

Certificate of Conformance 13-111: The emphasis of the evaluation was on the device design, operation, performance, and compliance with influence factor requirements. One model BC multiple range (10/100 lb x 0.1/0.5 oz), one model BC multi-interval (7/70 lb x 0.1/0.2 oz), one model BC single range (30 kg x 0.0.01kg) and one model BC (150 lb x 0.05 lb) were submitted for evaluation. Several increasing/decreasing load and shift tests were performed. A discrimination zone of uncertainty test and suitability of level indicator test was performed. Also, a power supply of 100 VAC and 240 VAC was applied to the scale. The device was tested over a temperature range of 0 °C to 40 °C (32 °F to 104 °F). A load of approximately one-half scale capacity was applied to the scale over 100 000 times. The scale was tested periodically during this period. The shift and discrimination zone of uncertainty tests were repeated after the permanence test.

Evaluated By: T.Buck (OH) 13-111, 13-111A1, 13-111A2; J. Morrison (OH) 13-111A2; M.Kelley (OH) 13-111A3

Mettler-Toledo, LLC

Non-Computing Scale / BC

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) 13-111, 13-111A1, 13-111A2, 13-111A3, 13-111A4, 13-111A5

Examples of Device:



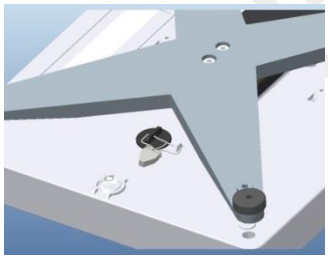




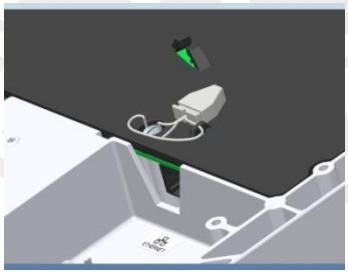


Examples of Sealing:

Top of scale under platter



Bottom of scale



Bottom of scale

