



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Non-Computing Scale
Counter/Bench, Digital Electronic
Models: JLxxxx-C/Ayy, JLxxx-G/Ayy and JLxxxx-G/LAyy
 n_{max} : 151 000
 e_{min} : 0.001 g / 0.001 ct.
 d = 0.001 g / 0.001 ct
Capacity: 22 g / 110 ct – 6100 g / 1510 ct
Platform: 58 to 160 mm Diameter
Accuracy Class: I and II (see page 2)

Submitted By:

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Standard Features and Options

Standard Features:

- Semi-automatic (push-button) Zero
- Automatic Zero Setting Mechanism (AZSM)
- kg, g, mg, ct, dwt, ozt Display Capability (may be set-up with any 2 listed units)
- AC Power Supply
- Unstable Weighing Mode
- Liquid Crystal Display (LCD)
- Stainless Steel Platter

Options:

- Battery Power Supply
- Draft Shield
- RS232 Communication Port
- Remote Printer Capability

Load Cell Used:

- Mettler-Toledo part number 42101982 Strain Gauge
- Mettler-Toledo part number 11505639 MonoBloc

Temperature Range: 10 °C to 30 °C (50 °F to 86 °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.

Randy Jennings
Chairman, NCWM, Inc.

Judy Cardin
Chairman, National Type Evaluation Program Committee
Issued: June 16, 2010

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Mettler-Toledo, Inc.

Non-Computing Scale / JLxxxx-C/Ayy, JLxxx-G/Ayy and JLxxxx-G/LAyy

Application: General purpose precious metals and gem weighing applications (Class I and II).

Identification: The required marking information appears on labels glued to the bottom and side of the scale and on labels glued to the front of the scale adjacent to the display.

Specific Models, Capabilities and Division Sizes:

<u>Model / Type</u>	<u>Capacity</u>	<u>e</u>	<u>d</u>	<u>Class</u>
JL103-C5/Ayy	22 g / 110 ct	0.01 g / 0.01 ct	0.001 g / 0.001 ct	II
JL203-CMR/Ayy	42 g / 210 ct 122 g / 610 ct	0.001 g / 0.001 ct 0.01 g / 0.01 ct	0.001 g / 0.001 ct 0.01 g / 0.01 ct	II I / II
JL203-C5/Ayy	51 g / 255 ct	0.001 g / 0.005 ct	0.001 g / 0.005 ct	II
JL502-C/Ayy	102 g / 510 ct	0.01 g / 0.01 ct	0.01 g / 0.01 ct	II
JL603-C/Ayy	122 g / 610 ct	0.01 g / 0.01 ct	0.001 g / 0.001 ct	I / II
JL1503-C/Ayy	302 g / 1510 ct	0.01 g / 0.01 ct	0.001 g / 0.001 ct	I / II
JL602-G/Ayy	610 g	0.1 g	0.01 g	II
JL602-G/LAyy	610 g	0.1 g	0.01 g	II
JL802-G/Ayy	810 g	0.1 g	0.01 g	II
JL1103-C/Ayy	220 g / 1100 ct	0.001 g / 0.001 ct	0.001 g / 0.001 ct	I
JL1501-G/Ayy	1510 g	0.1 g	0.1 g	II
JL1502-G/Ayy	1510 g	0.1 g	0.01 g	II
JL3001-G/Ayy	3100 g	0.1 g	0.1 g	II
JL5001-G/Ayy	5100 g	0.1 g	0.1 g	II
JL6001-G/Ayy	6100 g	1 g	0.1 g	II
JL6001-G/LAyy	6100 g	1 g	0.1 g	II

Notes: Suffix – C indicates Carat
 Suffix – G indicates Gold
 Suffix - yy can be 0-99 non-metrological feature

Sealing: The scale can be sealed by a wire security seal through a plastic tab on the back of the scale to prevent the housing from being separated. It is also necessary to place a self-destructive seal over a hole on the back of the scale next to the sealing tab to prevent access to calibration and configuration switch. A self-destructive is not required on the "/LA" models due to location of calibration and configuration switch being located on main printed circuit board.

Operation: The scale displays both "e" and "d" from no-load to capacity. The inspector must be aware that the tolerances are based on "e" not "d" for Class I and II scales.

Test Conditions: This Certificate supersedes Certificate of Conformance Number 05-078A1 and is issued to correctly identify the model names listed in the table and include a clarification of the sealing method in the sealing requirement section. Previous test conditions are repeated below for reference.

Certificate of Conformance Number 05-078A1: This Certificate supersedes Certificate of Conformance Number 05-078 and is issued to add several models and additional capacities. A model JL1503-C (302 g / 1510 ct x 0.01 g / 0.01 ct) was submitted for evaluation. The emphasis of the evaluation was on the device design, operation and environmental factors. Several increasing/decreasing load and shift tests were conducted. The scale was tested over a temperature range of 10° C to 30° C (50° F to 86° F). A load of approximately 1/2 capacity was applied to the scale over 100 000 times. The scale was tested periodically over this time. Tests were also conducted using 100 VAC and 130 VAC power supplies. Previous test conditions are repeated below for reference.



Mettler-Toledo, Inc.

Non-Computing Scale / JLxxxx-C/Ayy, JLxxx-G/Ayy and JLxxxx-G/LAyy

Certificate of Conformance Number 05-078: For the purpose of this evaluation three scales were submitted. The Models submitted were JL103-C5 (22 x 0.01 g / 110 x 0.05 ct), JL602-G (610 x 0.1 g / 3050 x 0.5 ct) and JL6100-CE (6100 x 1 g / 30500 x 5 ct). The emphasis of the evaluation was on the device design, operation, environmental factors, performance, and marking requirements. Several increasing/decreasing load and shift tests were conducted. The scales were tested over a temperature range of 10 °C to 30 °C (50 °F to 86 °F). A load of approximately 1/2 capacity was applied to the scales over 100 000 times each. The scale was tested periodically over this time. Tests were also conducted using 100 VAC and 130 VAC power supplies as well as 4.90 VDC and 10.0 VDC.

Evaluated By: A. McCoy (OH), W. West (OH) 05-078; T. Buck (OH), J. Morrison (OH) 05-078A1

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2007. NCWM, Publication 14: Weighing Devices, 2006.

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

Information Reviewed By: S. Patoray, L. Bernetich (NCWM) 05-078, 05-078A1; J. Truex (NCWM) 05-078A2

Examples of Device:

