



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Non-Computing Scale
Digital Electronic, Jeweler's, Grain Precision and Analytical
Models: ML Series, PH Series, JP Series and JS Series
 n_{\max} : 320 000
 e_{\min} : 1 mg
Accuracy Class: I / II

Submitted By:

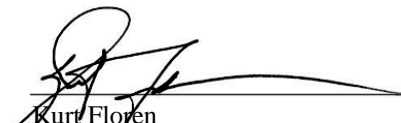
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Standard Features and Options


- Semi-automatic (push-button) Zero
- Semi-automatic (push-button) Tare
- Initial Zero Setting Mechanism (IZSM)
- Liquid Crystal Display (LCD)
- AC/DC Adapter
- Battery Power Supply
- Draft Shield
- RS232 Communication Port
- USB Port
- Remote Printer Capability
- Counting Feature for Prescription Filling
- Units: mg, g, kg, lb, oz, ozt, GN, dwt, and ct display capability (may be set-up with any 2 listed units)
- Platter Size: 90 mm diameter to 160 mm diameter (170 mm x 190 mm)

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.



Kurt Floren
Chairman, NCWM, Inc.



Jim Tyson
Chairman, National Type Evaluation Program Committee
Issued: December 19, 2011

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Mettler-Toledo, Inc.

Non-Computing Scale / ML Series, PH Series, JP Series and JS Series

Application: General purpose Class I, II weighing applications including analytical, precision and the weighing of jewelry and precious metals.

Identification: The required information appears on an adhesive label applied to the side of the scale.

Model	Analytical / Precision	Gold / Jewelry	Pharmacy	Capacity	d	e	Accuracy Class	n _{max}
JP303G/A-xx		X		320g	0.001g	0.01g	II	32 000
JP502C/A-xx		X		510ct/220g	0.01ct/0.001g	0.1ct/0.01g	II	22 000
JP503C/A-xx		X		500ct/100g	0.001ct/0.0001g	0.01ct/0.001g	I	100 000
JP503G/A-xx		X		520g	0.001g	0.01g	II	52 000
JP603G/A-xx		X		620g	0.001g	0.01g	II	62 000
JP703C/A-xx		X		700ct/140g	0.001ct/0.0001g	0.01ct/0.001g	I	140 000
JP802G/A-xx		X		820g	0.01g	0.1g	II	8200
JP1203C/A-xx		X		1200/240g	0.001ct/0.0001g	0.01ct/0.001g	I	240 000
JP1602C/A-xx		X		1600ct/320g	0.01ct/0.001g	0.1ct/0.01g	II	32 000
JP1602G/A-xx		X		1620g	0.01g	0.1g	II	16 200
JP1603C/A-xx		X		1600/320g	0.001ct/0.0001g	0.01ct/0.001g	I	320 000
JP2002G/A-xx		X		2200g	0.01g	0.1g	II	22 000
JP3002G/A-xx		X		3200g	0.01g	0.1g	II	32 000
JP3102C/A-xx		X		3100ct/620g	0.01ct/0.001g	0.1ct/0.01g	II	62 000
JP4002G/A-xx		X		4200g	0.01g	0.1g	II	42 000
JP6002G/A-xx		X		6200g	0.01g	0.1g	II	62 000
JP8001G/A-xx		X		8200g	0.1g	1g	II	8200
JS303G/A-xx		X		320g	0.001g	0.01g	II	32 000
JS502C/A-xx		X		510ct/120g	0.01ct/0.001g	0.1ct/0.01g	II	12 000
JS503C/A-xx		X		500ct/100g	0.001ct/0.0001g	0.01ct/0.001g	I	100 000
JS503G/A-xx		X		520g	0.001g	0.01g	II	52 000
JS601G/A-xx		X		620g	0.1g	0.1g	II	6200
JS602G/A-xx		X		620g	0.01g	0.1g	II	6200
JS603G/A-xx		X		620g	0.001g	0.01g	II	62 000
JS703C/A-xx		X		700ct/140g	0.001ct/0.0001g	0.01ct/0.001g	I	140 000
JS703CE/A-xx		X		700ct/140g	0.001ct/0.0001g	0.01ct/0.001g	I	140 000
JS802G/A-xx		X		820g	0.01g	0.1g	II	8200
JS802GE/A-xx		X		820g	0.01g	0.1g	II	8200
JS802GYE/A-xx		X		820g	0.01g	0.1g	II	8200
JS1002GYE/A-xx		X		1020g	0.01g	0.1g	II	10 200
JS1203C/A-xx		X		1200/240g	0.001ct/0.0001g	0.01ct/0.001g	I	240 000
JS1203CE/A-xx		X		1200/240g	0.001ct/0.0001g	0.01ct/0.001g	I	240 000
JS1501GYE/A-xx		X		1520g	0.1g	0.1g	II	15 200
JS1502GYE/A-xx		X		1520g	0.01g	0.1g	II	15 200
JS1602CE/A-xx		X		1600ct/320g	0.01ct/0.001g	0.1ct/0.01g	II	32 000
JS1602GE/A-xx		X		1620g	0.01g	0.1g	II	16 200
JS1603C/A-xx		X		1600/320g	0.001ct/0.0001g	0.01ct/0.001g	I	320 000
JS1603CE/A-xx		X		1600/320g	0.001ct/0.0001g	0.01ct/0.001g	I	320 000
JS2002G/A-xx		X		2200g	0.01g	0.1g	II	22 000
JS2002GE/A-xx		X		2200g	0.01g	0.1g	II	22 000
JS3002G/A-xx		X		3200g	0.01g	0.1g	II	32 000
JS3002GE/A-xx		X		3200g	0.01g	0.1g	II	32 000
JS3102CE/A-xx		X		3100ct/620g	0.01ct/0.001g	0.1ct/0.01g	II	62 000
JS4002G/A-xx		X		4200g	0.01g	0.1g	II	42 000
JS4002GE/A-xx		X		4200g	0.01g	0.1g	II	42 000
JS5001GYE/A-xx		X		5200g	0.1g	1g	II	5200
JS6001GYE/A-xx		X		6200g	0.1g	1g	II	6200
JS6002G/A-xx		X		6200g	0.01g	0.1g	II	62 000



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Model	Analytical / Precision	Gold / Jewelry	Pharmacy	Capacity	d	e	Accuracy Class	n _{max}
JS6002GE/Axx		X		6200g	0.01g	0.1g	II	62 000
JS8001G/Axx		X		8200g	0.1g	1g	II	8200
JS8001GE/Axx		X		8200g	0.1g	1g	II	8200
JS8001GYE/Axx		X		8200g	0.1g	1g	II	8200
ML54/Axx	X			52g	0.0001g	0.001g	I	52 000
ML54E/Axx	X			52g	0.0001g	0.001g	I	52 000
ML83E/Axx	X			82g	0.001g	0.01g	II	8200
ML103/Axx	X			120g	0.001g	0.01g	II	12 000
ML103E/Axx	X			120g	0.001g	0.01g	II	12 000
ML104/Axx	X			120g	0.0001g	0.001g	I	120 000
ML104E/Axx	X			120g	0.0001g	0.001g	I	120 000
ML203/Axx	X			220g	0.001g	0.01g	II	22 000
ML203E/Axx	X			220g	0.001g	0.01g	II	22 000
ML204/Axx	X			220g	0.0001g	0.001g	I	220 000
ML204E/Axx	X			220g	0.0001g	0.001g	I	220 000
ML303/Axx	X			320g	0.001g	0.01g	II	32 000
ML303E/Axx	X			320g	0.001g	0.01g	II	32 000
ML304/Axx	X			320g	0.0001g	0.001g	I	320 000
ML304E/Axx	X			320g	0.0001g	0.001g	I	320 000
ML403/Axx	X			420g	0.001g	0.01g	II	42 000
ML403E/Axx	X			420g	0.001g	0.01g	II	42 000
ML503/Axx	X			520g	0.001g	0.01g	II	52 000
ML503E/Axx	X			520g	0.001g	0.01g	II	52 000
ML601Exx	X			620g	0.1g	0.1g	II	6200
ML602/Axx	X			620g	0.01g	0.1g	II	6200
ML602E/Axx	X			620g	0.01g	0.1g	II	6200
ML603/Axx	X			620g	0.001g	0.01g	II	62 000
ML603E/Axx	X			620g	0.001g	0.01g	II	62 000
ML802/Axx	X			820g	0.01g	0.1g	II	8200
ML802E/Axx	X			820g	0.01g	0.1g	II	8200
ML1002/Axx	X			1020g	0.01g	0.1g	II	10 200
ML1002E/Axx	X			1020g	0.01g	0.1g	II	10 200
ML1501E/Axx	X			1520g	0.1g	0.1g	II	15 200
ML1502E/Axx	X			1520g	0.01g	0.1g	II	15 200
ML1602/Axx	X			1620g	0.01g	0.1g	II	16 200
ML1602E/Axx	X			1620g	0.01g	0.1g	II	16 200
ML2001/Axx	X			2200g	0.1g	0.1g	II	22 000
ML2001E/Axx	X			2200g	0.1g	0.1g	II	22 000
ML2002/Axx	X			2200g	0.01g	0.1g	II	22 000
ML2002E/Axx	X			2200g	0.01g	0.1g	II	22 000
ML3001/Axx	X			3200g	0.1g	0.1g	II	32 000
ML3001E/Axx	X			3200g	0.1g	0.1g	II	32 000
ML3002/Axx	X			3200g	0.01g	0.1g	II	32 000
ML3002E/Axx	X			3200g	0.01g	0.1g	II	32 000
ML4001/Axx	X			4200g	0.1g	0.1g	II	42 000
ML4001E/Axx	X			4200g	0.1g	0.1g	II	42 000
ML4002/Axx	X			4200g	0.01g	0.1g	II	42 000
ML4002E/Axx	X			4200g	0.01g	0.1g	II	42 000
ML5001/Axx	X			5200g	0.1g	1g	II	5200
ML5001E/Axx	X			5200g	0.1g	1g	II	5200
ML6000/Axx	X			6200g	1g	1g	II	6200
ML6001/Axx	X			6200g	0.1g	1g	II	6200
ML6001E/Axx	X			6200g	0.1g	1g	II	6200



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ML6002/Axx	X			6200g	0.01g	0.1g	II	62 000
ML6002E/Axx	X			6200g	0.01g	0.1g	II	62 000
ML8001/Axx	X			8200g	0.1g	1g	II	8200
ML8001E/Axx	X			8200g	0.1g	1g	II	8200
PH104L/Axx			X	120g	0.0001g	0.001g	I	120 000
PH203L/Axx			X	220g	0.001g	0.01g	II	22 000
PH204L/Axx			X	220g	0.0001g	0.001g	I	220 000
PH303L/Axx			X	320g	0.001g	0.01g	II	32 000
PH403L/Axx			X	420g	0.001g	0.01g	II	42 000
PH503L/Axx			X	520g	0.001g	0.01g	II	52 000
PH603L/Axx			X	620g	0.001g	0.01g	II	62 000
PH802L/Axx			X	820g	0.01g	0.1g	II	8200
PH2002L/Axx			X	2200g	0.01g	0.1g	II	22 000
PH3002L/Axx			X	3200g	0.01g	0.1g	II	32 000
PH6000L/Axx			X	6200g	1g	1g	II	6200
PH6001L/Axx			X	6200g	0.1g	1g	II	6200

Notes: Suffix – E indicates external calibration
 /A indicates Legal for Trade Version
 C indicates carat
 G indicates gold
 xx = can be 00-99 logistic information non-metrological

Sealing: The scale will use a self-destructive seal placed over an opening on the back of instrument preventing access to the calibration switch.

Test Conditions: The ML304, ML603, ML6002 and ML8001 were submitted for evaluation. The emphasis of the evaluation was on the design of the device, operation, environmental factors 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) for Class I and II devices. A load of approximately one-half capacity was applied to the scales at least 100 000 times. The scales were tested periodically over this time. Tests were conducted using 100 VAC to 240 VAC and 12 VDC power supplies.

Evaluated By: J. Morrison (OH)

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2011. NCWM, Publication 14: Weighing Devices, 2011.

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)



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Examples of Device:

