NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Non-Computing Scale
Jewelers, Prescription, Grain, Digital Electronic
Model: Adventurer Pro AxxyyyyzNz
n_{max}: (see page 2)
e_{min}: (see page 2)
Capacity: 51 g to 8 100 g
Platform: (see page 2)
Accuracy Class: I, II, III

***Submitted By: Contact Info. Updated: December 2010**
Ohaus Corporation
7 Campus Drive, Suite 310
Parsippany, NJ 07054
Tel: 973-377-9000
Fax: 973-944-7177
Contact: Robert Hansen
Email: bob.hansen@ohaus.com
Web site: www.ohaus.com

Standard Features and Options

Standard Features:

- Semi-automatic (push-button) Zero Setting Mechanism
- Automatic (AZSM) Zero Setting Mechanism
- Initial Zero Setting Mechanism (IZSM)
- Semi-automatic (push-button) Tare
- Gross/Net display
- Liquid (LCD) Crystal Display
- AC/DC adapter
- Battery Power supply (See page 2)
- Battery Saving Feature (auto shut-off)
- Other Units are Available in "Not Legal For Trade mode"
- Weight Units: carat, grain, gram, kilogram, milligram, pennyweight, pound, ounce, troy ounce
- "The Counting Feature is Not Legal for Trade" or "Counting Feature for Prescription Filling Only" is Labeled on the Front of the Scale
- Bracketing of the Display is Used to Identify "d" when it is not equal to "e" (d<e)

Option:

- Second RS232 Interface, USB Interface, Internal Semi-automatic Calibration

Load Cell Used:

- Mettler Toledo (non-NTEP)

Model Number	Capacity	Model Number	Capacity
OH-83	80 g	OH-802	800 g
ZBATI0260G4	260 g	OH-802C	810 g
OH-302	300 g	ZBATA4100G2	4 100 g
OH-302C	310 g	ZBATA14100G2	4 100 g
ZBATA0410G3	410 g	OH-8001	8 000 g
ZBAT10410G3	410 g	OH-8001C	8 100 g

Temperature Range: (see page 2)

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. *Editorial changes, not affecting the type or metrological content, corrected this certificate.

Tim Tyson
Chairman, NCWM, Inc.

Randy Jennings
Chairman, National Type Evaluation Program Committee

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1135 M Street, Suite 110 / Lincoln, Nebraska 68508

Ohaus Corporation

Non-Computing Scale / Adventurer Pro AxxyyyyzNz

Specific Models, Capacities and Platter Sizes:

Model	Capacity	e_{min}	d	n_{max}	Platform Size	Temperature Range	Class
AV64CN* [1, 2]	65 g	0.001 g	0.0001 g	65 000	90 mm dia.	10°C to 30°C (50°F to 86°F)	I
AV114CN* [1, 2]	110 g	0.001 g	0.0001 g	110 000	90 mm dia.	10°C to 30°C (50°F to 86°F)	I
AV264CN* [1, 2]	260 g	0.001 g	0.0001 g	260 000	90 mm dia.	10°C to 30°C (50°F to 86°F)	I
AV53N* [1, 3]	51 g	0.02 g	0.02 g	2 550	100 mm dia.	10°C to 40°C (50°F to 104°F)	II
AV53CN* [1, 2]	51 g	0.01 g	0.001 g	5 100	90 mm dia.	10°C to 30°C (50°F to 86°F)	II
AV213N* [1, 3]	210 g	0.01 g	0.001 g	21 000	120 mm dia.	10°C to 30°C (50°F to 86°F)	II
AV213CN* [1, 2]	210 g	0.01 g	0.001 g	21 000	120 mm dia.	10°C to 30°C (50°F to 86°F)	II
AV313N* [1, 3]	310 g	0.01 g	0.001 g	31 000	120 mm dia.	10°C to 30°C (50°F to 86°F)	II
AV313CN* [1, 2]	310 g	0.01 g	0.001 g	31 000	120 mm dia.	10°C to 30°C (50°F to 86°F)	II
AV413N* [1, 3]	410 g	0.01 g	0.001 g	41 000	120 mm dia.	10°C to 30°C (50°F to 86°F)	II
AV413CN* [1, 2]	410 g	0.01 g	0.001 g	41 000	120 mm dia.	10°C to 30°C (50°F to 86°F)	II
AV2102N* [1, 3]	2 100 g	0.1 g	0.01 g	21 000	168 x 180 mm	10°C to 30°C (50°F to 86°F)	II
AV2102CN* [1, 2]	2 100 g	0.1 g	0.01 g	21 000	168 x 180 mm	10°C to 30°C (50°F to 86°F)	II
AV3102N* [1, 3]	3 100 g	0.1 g	0.01 g	31 000	168 x 180 mm	10°C to 30°C (50°F to 86°F)	II
AV3102CN* [1, 2]	3 100 g	0.1 g	0.01 g	31 000	168 x 180 mm	10°C to 30°C (50°F to 86°F)	II
AV4102N* [1, 3]	4 100 g	0.1 g	0.01 g	41 000	168 x 180 mm	10°C to 30°C (50°F to 86°F)	II
AV4102CN* [1, 2]	4 100 g	0.1 g	0.01 g	41 000	168 x 180 mm	10°C to 30°C (50°F to 86°F)	II
AVD4102N* [1]	4 100 g	0.1 g	0.1 g and 0.01 g	41 000	168 x 180 mm	10°C to 30°C (50°F to 86°F)	II
AV212N* [1, 3]	210 g	0.1 g	0.1 g	2 100	120 mm dia.	10°C to 40°C (50°F to 104°F)	III
AV212CN* [1, 2]	210 g	0.1 g	0.1 g	2 100	120 mm dia.	10°C to 40°C (50°F to 104°F)	III
AV412N* [1, 3]	410 g	0.1 g	0.1 g	4 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV412CN* [1, 2]	410 g	0.1 g	0.1 g	4 100	168 x 180 mm	10°C to 40°C (50°F to 104°F)	III
AV612N* [1, 3]	610 g	0.1 g	0.1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AJ612N* [1, 3, 4]	610 g	0.1 g	0.1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV612CN* [1, 2]	610 g	0.1 g	0.1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AJ612CN* [1, 2, 4]	610 g	0.1 g	0.1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV812N* [1, 3]	810 g	0.1 g	0.1 g	8 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV812CN* [1, 2]	810 g	0.1 g	0.1 g	8 100	168 x 180 mm	10°C to 40°C (50°F to 104°F)	III
AV2101N* [1, 3]	2 100 g	1 g	1 g	2 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV2101CN* [1, 2]	2 100 g	1 g	1 g	2 100	168 x 180 mm	10°C to 40°C (50°F to 104°F)	III
AV4101N* [1, 3]	4 100 g	1 g	1 g	4 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV4101CN* [1, 2]	4 100 g	1 g	1 g	4 100	168 x 180 mm	10°C to 40°C (50°F to 104°F)	III
AV6101N* [1, 3]	6 100 g	1 g	1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AJ6101N* [1, 3, 4]	6 100 g	1 g	1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV6101CN* [1, 2]	6 100 g	1 g	1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AJ6101CN* [1, 2, 4]	6 100 g	1 g	1 g	6 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV8101N* [1, 3]	8 100 g	1 g	1 g	8 100	149 x 162 mm	10°C to 40°C (50°F to 104°F)	III
AV8101CN* [1, 2]	8 100 g	1 g	1 g	8 100	168 x 180 mm	10°C to 40°C (50°F to 104°F)	III

[1] Alternate models with R in the * position are equipped with an optional second RS232 interface.

[1] Alternate Models with U in the * position are equipped with an optional USB interface.

[2] Models with C preceding N are equipped with an internal semi-automatic calibration feature.

[3] These models have the option of battery power

[4] Models that are designated AJ are intended for Jewelry and precious metal weighing and will only have gram, carat, troy ounce and pennyweight units available.

Ohaus Corporation

Non-Computing Scale / Adventurer Pro AxxyyyyzNz

Application: For use in general purpose weighing, retail jewelry weighing/precious metal, prescription weighing, prescription counting, commercial grain and GIPSA grain weighing applications. Class I and II prescription scales will be marked with "The counting feature for prescription filling only." Class III scales will be marked with "The counting feature is not legal for trade." Model AVD4102N includes test weight and dockage modes for commercial and GIPSA grain testing.

Identification: The required information appears on a foil badge located on the side of the scale.

Sealing: The scale may be sealed by one of two methods, thus preventing undetected access to the calibration switch inside:

1. Install a metal security bracket which covers the calibration switch access hole at the rear of the balance. Then, install a wire security seal through the tab in the bracket and the tab in the housing.
2. Cover the calibration switch access hole with a paper seal and install a wire security seal through the tab at the rear of the balance.

Before sealing the device, the Legal for Trade menu item must be set to NTEP in the menu mode. For model AVD4102N, the Legal for Trade menu item must be set to COMM or GIPSA. To verify that the Legal Trade menu item is set correctly, turn the scale off and back on. "LFT On" is displayed during power up only if the scale is set to the legal for trade mode.

Operation: The automatic calibration feature uses an internal mass in the balance for calibration and is done automatically when selected.

Test Conditions: This certificate supersedes Certificate of Conformance Number 05-118 and is issued to add Class I and Class II models. The emphasis of the evaluation was on the device design, marking requirements, performance, and compliance with influence factors. For the purpose of this evaluation, 3 models of this series were submitted for approval as Class I and Class II: AV264CNR (260 x 0.001 g, d = 0.0001 g) Class I, AV413CNR (410 x 0.01 g, d = 0.001 g) Class II, and AV4102CNR (4100 x 0.1 g, d = 0.01 g) Class II. Additionally, the following models were evaluated, but limited testing was performed. AV53CN (51 x 0.01 g, d = 0.001 g) Class II, AVD4102CN (4100 x 0.1 g, d = 0.01 g) Class II – for Grain Test application AV812CN (810 x 0.1 g) Class III, and AV8101CN (8100 x 1 g) Class III. The models previously submitted for evaluation as Class II and III were: AV53N; AV812N and AV8101N. 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 one-half capacity was applied to the AV264CNR and AV4102CNR scales over 100 000 times. The scales were tested periodically over this time. Tests were conducted using 100 VAC and 130 VAC power supplies.

Certificate of Conformance Number 05-118: The emphasis of the evaluation was on the device design, marking requirements, performance, and compliance with influence factors. For the purpose of this evaluation, three models of this series were submitted: 51 g x 0.02 g, 810 g x 0.1 g, 8100 g x 1 g. Several increasing/decreasing load and shift tests were conducted. The scales were tested over a temperature range of 10 °C to 40 °C (50 °F to 104 °F). A load of approximately one-half capacity was applied to the 51 g x 0.02g and the 8100 g x 1.0 g scales over 100 000 times. The scales were tested periodically over this time. Tests were conducted using 100 VAC and 130 VAC, and 4.42 to 6.90 volt DC power supplies.

Evaluated By: W. West (OH), A. McCoy (OH), T. Lucas (OH) 05-118; W. West (OH) 05-118A1

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2006. 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 (NCWM), L. Bernetich (NCWM) 05-118, 05-118A1

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Examples of Device: