



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Non-Computing Scale
Digital Electronic
Model: GF-AN Series (See table on page 2)
 n_{max} : 62 000 (See table on page 2)
 e_{min} : 0.01g (See table on page 2)
Capacity: 122 g to 10 200 g (See table on page 2)
Platform: 128 mm x 128 mm and 165 mm x 165 mm
Accuracy Class: II

Submitted By:

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Standard Features and Options

Model Designation:

- G = Type
- F = External Cal

- A = A&D Apollo Series
- N = Legal for Trade Certified

Features and Functions

- Semi-automatic (push-button) Zero
- Automatic Zero Tracking Mechanism (AZT)
- Category 1 physical seal
- Under Scale weighing
- Ethernet (optional)
- AC/DC Adapter
- Bubble Spirit Level Indicator
- LCD Display
- Bracketing of the Display is Used to Identify “d” when it is not equal to “e” ($d < e$)
- Category 1 Physical Seal
- Draft Shield (Model dependent)
- External Unit Conversion key (g, ct, lb, oz, ozt,)
- External printer
- RS-232 and USB communication ports
- Selectable and sealable $e=d$ or $e=10d$
- Gross/Net Display
- Percent Weighing
- Tare Capability

“The counting feature is not legal for trade,” is labeled on the front of the device for non-prescription models.

Load Cell Used:

SHS force restoration load cell. (Non-NTEP)

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.

Hal Prince
Chairman, NCWM, Inc.

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A&D Engineering Inc.
Non-Computing Scale / GF-AN Series

Application: General purpose balance with top loading or under device weighing capability. The GF-AN Series of devices are suitable for use in any class II direct or indirect sale application.

Identification: The device markings are on a pressure sensitive, tamper evident label displaying “Void” when removed is located on the right side of the device, the appropriate capacity x division markings are adjacent to the weight display the serial number is on the back of the device.

Sealing: The device uses a category 1 physical seal and is sealed by threading a wire security seal through two screws on the RS-232 serial interface plate and scale housing. This prevents access to the calibration switch inside the device.

Model	Capacity (g)	n _{max}	e (g)	d (g)	Class	Platter size (mm)	Load Cell Used
GF-123AN	122	12 200	0.01	0.001	II	128 mm x 128 mm	1PAGX1603A-K
GF-203AN	220	22 000	0.01	0.001	II	128 mm x 128 mm	1PAGX1603A-K
GF-303AN	320	32 000	0.01	0.001	II	128 mm x 128 mm	1PAGX1603A-K
GF-403AN	420	42 000	0.01	0.001	II	128 mm x 128 mm	1PAGX1603A-K
GF-603AN	620	62 000	0.01	0.001	II	128 mm x 128 mm	1PAGX1603A-K
GF-1202AN	1220	12 200	0.1	0.01	II	165 mm x 165 mm	1PAGX10002A-K
GF-2002AN	2200	22 000	0.1	0.01	II	165 mm x 165 mm	1PAGX10002A-K
GF-3002AN	3200	32 000	0.1	0.01	II	165 mm x 165 mm	1PAGX10002A-K
GF-4002AN	4200	42 000	0.1	0.01	II	165 mm x 165 mm	1PAGX10002A-K
GF-6002AN	6200	62 000	0.1	0.01	II	165 mm x 165 mm	1PAGX10002A-K
GF-6001AN	6200	6200	1	0.1	II	165 mm x 165 mm	1PAGX10002A-K
GF-10001AN	10 200	10 200	1	0.1	II	165 mm x 165 mm	1PAGX10002A-K

Test Conditions: This certificate supersedes Certificate of Conformance 20-039 and is issued to add under scale weighing capability to the GF-AN series and update contact information. For this evaluation three models of the GF-AN series were submitted the GF-123AN (122 g x 0.01 g), (GF-603AN 620 g x 0.01 g), GF-6202AN (6200 g x 0.1 g). Multiple increasing/decreasing load tests were performed on the platter and the under-scale weighing attachment to verify performance and repeatability. Previous test conditions are listed below for reference.

Certificate of Conformance 20-039: The emphasis of the evaluation was on the device design, operation, environmental factors, performance and marking requirements. Four models of the GF series the GF-123AN (122 g x 0.01 g), (GF-603AN 620 g x 0.01 g), GF-6202AN (6200 g x 0.1 g) and the GF-10001AN (10 200 g x 1 g) were submitted for evaluation. Multiple increasing/decreasing load and eccentricity tests were performed. Each device was tested over a voltage range of 85 VAC to 264 VAC. Influence factor tests were conducted over a temperature range of 10 °C to 30 °C (50 °F to 86 °F). Discrimination and level sensitivity tests were performed. Printing functions were tested utilizing the RS-232 and USB port to an external printer and PC. A load of one-half capacity was applied over 100 000 times, increase/decrease testing was performed during this time. At the conclusion of permanence testing an increase/decrease, eccentricity and discrimination test was repeated. Testing performed in both selectable sealable resolution of e=d or e=10d to make the GF-AN series comply with direct and indirect sales applications.

Evaluated By: J. Gibson (OH) 20-039, 20-039A1

Type Evaluation Criteria Used: NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2020 Edition. NCWM Publication 14 Measuring Devices, 2021 Edition.

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

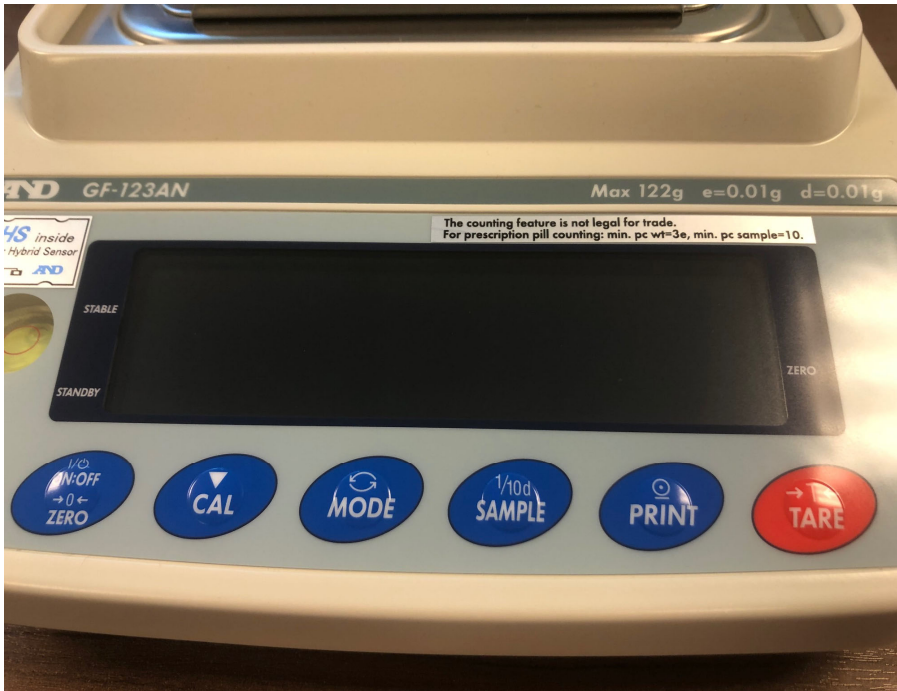
Information Reviewed By: D. Flocken (NCWM) 20-039, 20-039A1



A&D Engineering Inc.
Non-Computing Scale / GF-AN Series

Example(s) of Device:

Front view



If e=d is selected in the NTEP menu selection behind the calibration switch (see manual), the device prompts end user to apply e=d front label with LAB on the display. e=d front label is included in the box at time of purchase. The e=10d front label can be removed and replace e=d label before sealing device.



Warning on display indicates.

e=10d and e=d front Label

A&D GF-603AN Max 620g e=0.01g d=0.001g

A&D GF-603AN Max 620g e=0.01g d=0.01g



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Back view

GF-AN Category 1 Sealing All models





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GF-AN series examples



Left to right is $d = 0.1\text{g}$, 0.01g and 0.001g resolutions models.
 0.001g resolution models will come standard with manual draft shield see far right.

Manufacturer Draft Approval CN 10073

Signature:

Title:

Date: