National Conference on Weights and Measures

15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

Certificate Number: 07-104

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National Type Evaluation Program Certificate of Conformance for Weighing and Measuring Devices

For:

Non-Computing Scale Digital Electronic Model: FSi Series

 n_{max} : 3500

Capacity: See table on page 2*

Accuracy Class: III

Submitted by:

A&D Engineering

1756 Automation Parkway

San Jose, CA 95131 Tel: 408-263-5333 Fax: 408-263-0119

Contact: Jesus Zapien

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Standard Features and Options

Semi-automatic (push button) zero setting mechanism Initial (IZSM) zero setting mechanism Automatic zero tracking (AZT) Semi-automatic (push button) tare LCD display AC power Battery power optional Battery saving feature (auto-shut off) Units (kg, g, lb, oz)

Load cell used: A&D Part number LC 120-6K (non NTEP)

A&D Part number LC 120-15K (non NTEP) A&D Part number LC 120-30K (non NTEP)

Temperature range: -10 °C to 40 °C (14 °F to 104 °F)

adoth L. Carden

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of 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.

Judith L. Cardin Chairman, NCWM, Inc.

Don Onwiler Chairman, National Type Evaluation Program Committee

Issue date: November 20, 2007

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A & D Engineering Non-Computing Scale Model: FS Series

Application: Non computing scale used for general purpose weighing applications.

Identification: The required information is on an adhesive badge affixed on the side of the indicating element.

Sealing: The device is sealed on the rear of the display by means of a wire security seal threaded through two thumb screws to prevent access to the calibration switch.

* Capacities, division sizes, n_{max} and pan sizes

Model	Capacity x d in lb	Capacity x d in kg	Capacity x d in g	Capacity x d in oz	n _{max}	Pan Size in mm
FS-6Ki/6KiN	15 x .005	6 x .002	6000 x 2	240 x .1	3000	250 x 250
FS-15Ki/15KiN	35 x .01	15 x .005	15000 x 5	560 x .2	3500	250 x 250
FS-30Ki/30KiN	70 x .02	30 x .01	30000 x 10	1120 x .5	3500	380 x 300

<u>Test Conditions:</u> The emphasis of the evaluation was on the device design, operation, marking requirements and compliance with influence factor requirements. For the purpose of this evaluation, a model FS-6Ki (6 kg x 0.002 kg).and a model FS-30Ki (70 lb x 0.02 lb) was submitted. Several increasing/decreasing load and shift tests were conducted on each scale. The scales were tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half scale capacity was applied to each scale over 100 000 times. The scales were tested periodically during this time. Tests were also conducted with a power supply of 100 VAC to 130VAC, and 5.8 VDC to 10.0 VDC

Evaluated By: A. McCoy

Type Evaluation Criteria Used: NIST Handbook 44, 2007 Edition; NCWM Publication 14, 2007 Edition

Conclusion: The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Reviewed By: S. Patoray (NCWM), L. Bernetich (NCWM)



Example FS-30Ki



Example FS-6Ki