

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For:

Non-Computing Scale Digital Electronic Model: SC/SE Series n_{max}: 4200 to 7500

e_{min}: 0.005 kg (0.01 lb; 0.2 oz)

Capacity: 30 to 150 kg (66 to 330 lb; 1050 to 5200 oz)

Platforms: SC/SE KAM - 300 x 380 mm SC/SE KAL - 390 x 530 mm

Accuracy Class: III

Submitted By:

A&D Engineering

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Standard Features and Options

- SE is Mild Steel Construction
- SC is Stainless Steel Construction
- "N" is a Marketing Identifier with No Metrological Significance
- Automatic Zero Tracking (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-automatic Zero (push-button)
- Load Cells Used: A&D Model: 1LC176 (30,60,150 kg) non-NTEP
- Liquid Crystal Display
- DC Power / Battery
- Pound (lb)
- Kilogram (kg)
- Ounce (oz)
- Semi-automatic Tare (push-button)

Options:

- USB Interface
- RS-232 Interface

Temperature Range: -10 °C to 40 °C (14 °F to 104 °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.

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Chairman, NCWM, Inc.

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Issued: June 1, 2011

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A&D Engineering

Non-Computing / SC/SE Series

Model	Capacity	d=e	n _{max}
SC/SE-30KAM	30 kg, 66 lb, 1050 oz	0.005 kg, 0.01 lb, 0.2 oz	6000, 6600, 5250
SC/SE-30KAMN	30 kg, 66 lb, 1050 oz	0.005 kg, 0.01 lb, 0.2 oz	6000, 6600, 5250
SC/SE-60KAM	60 kg, 130 lb, 2100 oz	0.01 kg, 0.02 lb, 0.5 oz	6000, 6500, 4200
SC/SE-60KAMN	60 kg, 130 lb, 2100 oz	0.01 kg, 0.02 lb, 0.5 oz	6000, 6500, 4200
SC/SE-60KAL	60 kg, 130 lb, 2100 oz	0.01 kg, 0.02 lb, 0.5 oz	6000, 6500, 4200
SC/SE-60KALN	60 kg, 130 lb, 2100 oz	0.01 kg, 0.02 lb, 0.5 oz	6000, 6500, 4200
SC/SE-150KAM	150 kg, 330 lb, 5200 oz	0.02 kg, 0.05 lb, 1 oz	7500, 6600, 5200
SC/SE-150KAMN	150 kg, 330 lb, 5200 oz	0.02 kg, 0.05 lb, 1 oz	7500, 6600, 5200
SC/SE-150KAL	150 kg, 330 lb, 5200 oz	0.02 kg, 0.05 lb, 1 oz	7500, 6600, 5200
SC/SE-150KALN	150 kg, 330 lb, 5200 oz	0.02 kg, 0.05 lb, 1 oz	7500, 6600, 5200

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

<u>Identification</u>: The required information is on an adhesive badge affixed on the top or on the face-plate of the indicating element.

<u>Sealing</u>: The calibration switch is located at the bottom of the indicator. Access to the calibration switch can be prevented by a physical seal that runs a metal wire through a plastic lip on the body of the device and a through hole in a screw.

Operation: General purpose weighing applications.

<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 SC-30KAM (66 x 0.01 lb) and a model SE-150KAL (150 x 0.02 kg) 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 6 VDC to 9.9 VDC. (Battery powered only).

Evaluated By: E. Matthews (OH)

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

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)

Examples of Device:



SC- Series Stainless Steel Frame



SE - Series Mild Steel Frame