

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

For:

Shipping Scale, Weight Classifier
Load Cell, Electronic
Model: MS-100
 n_{\max} : 8,000
Capacity: 99 lb 15.8 oz x 0.2 oz
Platform: 14.87" x 8.12"
Accuracy Class: III

Submitted by:

Cardinal Scale Mfg. Co.
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Standard Features and Options

Semi-automatic zero
Automatic zero setting mechanism
Integral weight display
Numeric keyboard

Level indication under scale base platform
UPS and USPS function keys
Price and weight display RS232 capability
Manual weight entries

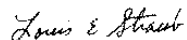
Additional Models:

MS-15 (15 lb x 0.05 oz; n_{\max} : 4800)
MS-30 (30 lb x 0.1 oz; n_{\max} : 4800)


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

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.

Effective Date: March 17, 1992



Louis E. Straub
Chairman, NCWM, Inc.



G. Weston Diggs
Chairman, National Type Evaluation Program Committee
Issue date: March 20, 1992

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

**Cardinal Scale Mfg. Co.
Shipping Scale Weight Classifier
Model: MS-100**

Application: These devices are marked "weight classifier for postal use", and are suitable for use where minimum loads are at least 10d.

These scales are for use in direct sale as shipping scales used by a shipper and retail package consolidators. Each scale has the capability of permitting the user to program the service charge for the package consolidator into the computed cost as a fixed value or a percentage added on the carrier charges.

Identification: The identification information is printed on a pressure sensitive, self-destructive label located under the scale platter.

Suffixes located after the model number represent options to the device that do not affect metrological characteristics.

Sealing: Two drilled head screws on the bottom of the scale can be sealed with a lead and wire security seal. These screws secure an internal retaining block that keeps the calibration switch in the "off" position.

Operation: All functions are controlled by the keyboard. A weight must be on the scale base when using any of the UPS and USPS functions. Manual weight entries are permitted only with no load on the scale. The count function shall be disabled on "legal for trade" applications. The display will indicate "Invalid Selection" when the "count" key is pressed.

Test Conditions: The Models MS-100 and MS-15 were submitted for testing. The emphasis of this evaluation was on the device design and operation. A load of approximately one-half capacity was applied to the MS-100 and MS-15 scales over 100,000 times each. The scales were tested for accuracy periodically during this time. Additionally, the scales were tested for accuracy over a voltage range of 100 VAC to 130 VAC and over a temperature range of 0 °C to 40 °C. The results of this evaluation indicate these devices comply with the applicable requirements.

Type Evaluation Criteria Used: NIST Handbook 44, 1991 Edition

Tested By: G. Castro