



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Non-Computing Scale
 Digital Electronic, Multi-Interval
 Model: IPC & IPC-WP
 n_{max} : 1000 to 1500 (See Below)
 Capacity: 6-60 lb; 3-30 kg; 100 oz (See Below)
 Platform: IPC- 9.1 in x 7.8 in to 11.0 in x 11.5in
 IPC-WP 9.0 in x 7.7 in
 Accuracy Class: III

Submitted by:

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Standard Features and Options

Capacity (kg)	Division size	n_{max}
0-3 lb (0-1.5 kg)/ 3-6 lb (1.5-3 kg)	0.002 lb (0.001 kg)/ 0.005 lb (0.002 kg)	1200 to 1500
0-7.5 lb (0-3 kg)/ 7.5-15 lb (3-6 kg)	0.005 lb (0.002 kg)/0.01 lb (0.005 kg)	1200 to 1500
0-15 lb (0-7.5 kg)/15-30 lb (7.5-15 kg)	0.01 lb (0.005 kg)/0.02 lb (0.01 kg)	1500/1500
0-30 lb (0-15 kg)/30-60 lb (15-30 kg)	0.02 lb (0.01 kg)/0.05 lb (0.02 kg)	1200 to 1500
0-50 oz/50-100 oz	0.05 oz/0.1 oz	1000

Semi-automatic (push button) zero setting mechanism
 Automatic (AZSM) zero setting mechanism
 Initial (IZSM) zero setting mechanism
 Units (lb, kg, oz)
 Battery saving feature (auto-shut off)

Semi-automatic (push button) tare
 Customer (dual) display optional
 AC/DC adapter
 Battery power supply
 Multi-interval

Load cell used: Zhongyuan Electrical Measuring Instruments CZL-6D-C3 series capacities: 5 kg to 50 kg; non NTEP

Temperature range: -5°C to 40°C (23°F to 104°F)

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.

John Gaccione
 Chairman, NCWM, Inc.

Stephen Benjamin
 Committee Chair, National Type Evaluation Program Committee
 Issued: April 17, 2014

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Ishida Co. LTD
Non-Computing Scale / IPC & IPC-WP

Application: Bench and counter scale used for general purpose weighing applications.

Identification: The required information is on a metal badge affixed on the right side of the scale

Sealing: The device is sealed on the bottom of the device by means of a wire security seal threaded through a flat head screw and a tab and a wire security seal threaded through two flat head screws screwed to prevent the base from being removed from the scale to prevent access to the calibration switch.

Test Conditions: This Certificate supersedes Certificate of Conformance Number 02-139A3 and is issued to clarify the n_{max} values shown in the Standard Features and Options section of the certificate. An example picture of the device was also added to the certificate. No additional testing was required. Previous test conditions are listed below as reference.

Certificate of Conformance 02-139A3: This Certificate supersedes Certificate of Conformance Number 02-139A2 and is issued to make a correction to the Standard Features and Options section of the certificate. No additional testing was required.

Certificate of Conformance 02-139A2: This Certificate supersedes Certificate of Conformance Number 02-139A1 and is issued to include the WP suffix to the model number to identify the water resistant scales. The emphasis of the evaluation was on the device design, operation, and marking requirements. A 0-15 lb x 0.01 lb (0-7.5 kg x 0.005 kg) /15-30 lb x 0.02 lb (7.5-15 kg x 0.01 kg) multi-interval device was submitted for the evaluation. The tare operation and multi-interval change point was checked for accuracy. The water resistant option was included without further testing and is based on information provided by the manufacturer.

Certificate of Conformance Number 02-139A1: This Certificate supersedes Certificate of Conformance number 02-139 and was issued without additional testing to amend the capacity descriptions.

Certificate of Conformance 02-139: The emphasis of the evaluation was on the device design, operation, marking requirements and compliance with influence factor requirements. A 0-3 lb x 0.002 lb (0-1.5 kg x 0.001 kg)/3-6 lb x 0.005 lb (1.5-3 kg x 0.002 kg) and a 0-30 lb x 0.02 lb (0-15 kg x 0.01 kg)/30-60 lb x 0.05 lb (15-30 kg x 0.02 kg) multi-interval device were submitted for the evaluation; the 6 lb scale was also set up as a 100 oz x 0.05 oz scale. Several increasing/decreasing load and shift tests were performed on each scale. The scales were tested over a temperature range of -5°C to 40°C (23°F to 104°F). A load of approximately one-half scale capacity was applied to each scale 100 800 times. The scale was tested periodically during this time. Tests were also conducted with a power supply of 100 - 130VAC.

Evaluated By: A. McCoy (OH) 02-139; 02-139A1 & 02-139A2

Type Evaluation Criteria Used: NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2013 Edition. NCWM Publication 14 Weighing Devices, 2013 Edition.

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) 02-139, 02-139A1, 02-139A2, 02-139A3; J. Truex (NCWM) 02-139A4

Examples of Device:



IPC



IPC-WP



IPC-WP Display