



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Models: ZM3xx and ZQ3xx Series
 $n_{\max}$: 10 000
Accuracy Class: III / III L

Submitted By:

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Standard Features and Options

- Semi-automatic (push-button) Zero
- Automatic Zero Setting (AZT) Mechanism
- Semi-automatic (push-button) Tare
- Keyboard Tare
- Preprogrammed Tare
- Center of Zero Annunciator
- Gross/Net/Tare Display
- Weight Accumulation
- Alphanumeric Display
- LCD Display
- Unit Selection Key (lb, kg, g, oz, custom unit of measure)
- Weigh In/Weigh Out (ZM305 only)
- Category 3 Audit Trail
- 2 Event Counters (Configuration, Calibration)
- Variable Print Format
- RS232 Communication
- Ethernet
- USB
- DC Power (9-36VDC)
- AC Power (110/230VAC)
- Stainless Steel Enclosure (All models)
- Aluminum Alloy Enclosure (ZM301/303)
- Panel Mount Enclosure (ZM301/303/305)

Options:

- Wireless
- Panel Mount Kit (Alloy Enclosure)

Software Version:

- 1.0.0.0 or higher

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.

Ronald Hayes
Chairman, NCWM, Inc.

John Gaccione
Chairman, National Type Evaluation Program Committee
Issued: June 1, 2015

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**Avery Weigh-Tronix, LLC**

Indicating Element / ZM3xx and ZQ3xx Series

Application: A general-purpose indicator to be interfaced with an approved compatible weighing element.

Identification: The required marking information is on the back of the device. Labels for capacity, division, CLC (concentrated load capacity; if required), and section capacity (if required) will be identified on an adhesive label. The label will self-destruct when removed.

Sealing:**Audit Counters:**

1. To access the User menu, press and hold the "F1" or "SetUp" key until the word "PASS" is displayed.
2. The display will change to show a password prompt.
3. Using the "Tare" key to scroll up and the "Units" key to advance the cursor position, scroll in the number "111".
4. The "Zero" key is used as the Enter key to accept the password. Upon successful completion of the password, the display will show "USER".

From the "USER" Prompt, Accessing the Configuration Audit Counter:

1. Press the "Print" key to display the word "AUDIT".
2. Press the "Select" key to display the word "COUNTER".
3. Press the "Select" key to display the word "CONFIG".
4. Press the "Select" key again to display the actual configuration counter.

From the "USER" Prompt, Accessing the Calibration Audit Counter:

1. Press the "Print" key to display the word "AUDIT".
2. Press the "Select" key to display the word "COUNTER".
3. Press the "Select" key to display the word "CONFIG".
4. Press the "Units" key to display the word "CALIB".
5. Press the "Select" key again to display the actual calibration counter.

Printing the Audit Counters/Audit Trail from the "USER" Prompt:

1. Press the "Print" key to display the word "AUDIT".
2. Press the "Select" key to display the word "COUNTER".
3. Press the "Select" key to display the word "CONFIG".
4. Press the "Print" Key so the display shows "PRINT".
5. Press the "Select" key and the choice of com port is displayed.
6. Using the "Print" and "Units" key, one can select from "Com1", "Com2", and "USB". Press the "Select" key to accept the choice that is displayed.

Test Conditions: This certificate supersedes Certificate of Conformance 11-096A1 and is issued to add the panel mounts option for the ZM305. The new option was reviewed by the NTEP laboratory and no additional testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance 11-096A1: This certificate supersedes Certificate of Conformance 11-096 and is issued to add the ZM305 to the family of indicating elements and a Weigh In/Weigh Out feature. The emphasis of the evaluation was on device design and operation. A model ZM305 was submitted for evaluation and several increasing/decreasing load tests were performed using a load cell simulator. Additionally, tests were performed using 100VAC and 130 VAC as well as 8.2 VDC and 39.6 VDC power supplies. The model ZM305 was evaluated with the version 2.0.0.0 software that is to be used in the models ZM301/ZM303/ZM375

Certificate of Conformance 11-096: The models submitted for this evaluation were the ZM301, ZM303 and the ZQ375 digital weight indicators. The emphasis of the evaluation was on device design, operation, and compliance with environmental factors. All three models were interfaced with load cell simulators and then tested for accuracy over a temperature range of -10°C to +40°C (14°F to 104°F). The ZM303 indicator was interfaced with an Avery Weigh-Tronix BS 20 x 20 N (Certificate of Conformance Number 88-104) load receiving element and a CP-130 printer with the wireless option enabled. The device was tested for discrimination, power interruption, zero tests, and print format. Additionally, tests were performed using 100VAC and 130 VAC as well as 8.3 VDC and 39.6 VDC power supplies. The wireless printing features were tested in conformance to PUB 14 requirements.



Avery Weigh-Tronix, LLC

Indicating Element / ZM3xx and ZQ3xx Series

Evaluated By: E. A. Payne, Jr. (MD) 11-096, 11-096A1, 11-096A2

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

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) 11-096, 11-096A1, 11-096A2

Examples of Device:



Model ZM301-SD1 (Stainless Steel)



Model ZM303-SD2 (Stainless Steel)



Model ZM301-AD1 (Alloy)



Model ZM303-SP1 (Panel Mount)



Model ZQ375-SD1 (Stainless Steel)



Model ZM305-SG1 (Stainless Steel)



Avery Weigh-Tronix, LLC

Indicating Element / ZM3xx and ZQ3xx Series



Model ZM305-SD1 (Stainless Steel)

