



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: ZM155
 $n_{\max}$: 10 000

Accuracy Class: III / III L

Submitted By:

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Standard Features and Options

- Semi-Automatic (push button) Zero Setting Mechanism
- Automatic Zero Tracking (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (push button) Tare
- (100 to 250) VAC Power Supply
- External Unit Switching (lb, oz, kg, g, oz t, ton, metric ton)
- Power Save (Sleep Mode & Auto Shut off)
- RS232
- RS422/485
- Remote Printer Capability
- Linearity Calibration Points
- Intrinsically safe

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.

Craig VanBuren
Chairman, NCWM, Inc.

Brett Jurney
Committee Chair, NTEP Committee
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Avery Weigh-Tronix
Indicating Element / ZM155

Application: An Intrinsically Safe indicating element for use with approved and compatible weighing/load receiving element.

Identification: The required information appears on a self-destructive label on the side of the indicator.

Sealing: Category 1 – There are two non-resettable counters, one for calibration values and one for configuration parameters. The audit counters may be accessed by holding down the zero key for longer than 2 seconds. The display will show the parameter (P) counter followed by the calibration (C) counter and then return to normal operation.

Test Conditions: This Certificate was issued based on the following tests and upon information provided by the manufacturer. The emphasis of the evaluation was on device design, marking, operation, performance, and compliance with influence factors. A model ZM155 indicator (Intrinsically safe) was submitted for evaluation. The indicator was interfaced to a weighing/load receiving element and to a load cell simulator to verify compliance with zero, zone of uncertainty, motion detection and unit conversion requirements. Several increasing/decreasing load tests were performed. Voltage test were performed at 85 and 274 VAC. Temperature tests were performed over a range of -10 °C to 40 °C (14 °F to 104 °F).

Evaluated By: J. Gibson (OH)

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2019 Edition. *NCWM Publication 14 Weighing Devices*, 2019 Edition.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: D. Flocken (NCWM)

Example of Device:

