



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: 201
 $n_{\max}$: 10 000
Accuracy Class: III / III L

***Submitted By: Contact Info. Updated December 2022**

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Standard Features and Options

- Semi-Automatic Tare (Push-Button)
- Semi-Automatic Zero (Push-Button)
- Gross/Net Display
- Automatic Zero Tracking Mechanism (AZT)
- Motion Detection
- Selectable Units (lb, oz, kg, and g)
- Panel Mount Enclosure
- LCD Display with LED backlight
- Time and Date
- Checkweighing Feature
- Bi-Directional Serial RS232 Interface
- Multi-Point Calibration Feature (Up to 5)
- RS232, RS485, USB, programmable Analog Output 4-20 ma / 0-10 V
- AC/DC Adaptor
- Analog Input
- Ethernet Interface
- Digital Input and Output

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.

Stephen Benjamin
Chairman, NCWM, Inc.

Kurt Floren
Committee Chair, National Type Evaluation Program Committee
Issued: March 18, 2013

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**Cardinal Scale Manufacturing, Co.**

Indicating Element / 201

Application: General purpose indicating element when connected to a compatible weighing/load-receiving element. Designed for Process Control applications.

Identification: The self-destructive identification label is located on the side of the enclosure.

Sealing: Either a Category 1 lead-wire physical seal or a Category 1 event counter audit trail may be used to secure the indicator. The lead-wire seal is threaded through a drilled-head screw protecting the calibration switch and then through the drilled head of an adjacent screw.

Access to the Category 1 event counter is obtained by simultaneously pressing the F1 and F2 keys. When the display shows : dATE, press the F2 key. The display will now show ETR. Press the F3 key and the display shows CFG=. Press the F3 key to show the contents of the configuration event counter. Press the F3 key again and the display will show CAL=. Press the F3 key to display the contents of the calibration event counter. Simultaneously press the F1 and F2 keys to return to normal operation.

Test Conditions: The Model 201 digital weight indicator was submitted for this evaluation. The emphasis of the evaluation was on device design, operation, and compliance with influence factor requirements. The indicator was interfaced with a load cell simulator and then tested for accuracy over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). The indicator was interfaced with a Cardinal Model EB60-LPAN load cell weighing element (NTEP Certificate of Conformance Number 03-031A1) and a PC. The device was tested for discrimination, power interruption, zero tests, and print format. Additionally, the device was tested with a supply voltage of 100 VAC to 130 VAC.

Evaluated By: E.A. Payne, Jr., Z. Tripoulas (MD)

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*, 2012 Edition.

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)

Example(s) of Device:

Model 201, Front



Model 201, Bottom