

National Conference on Weights and Measures

1135 M Street, Suite 110 • Lincoln, Nebraska 68508

Certificate Number: 09-051

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

For:

Indicating Element, Digital

Model: IND131, IND331

n_{\max} : 10 000

Accuracy Class: III / IIIL

Submitted by:

Mettler-Toledo Inc.

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Standard Features and Options

Standard Features:

Automatic Zero Tracking (AZT)

Semi-Automatic Zero Setting Mechanism

Semi-Automatic (push button) Tare

Intrinsic Safe Barrier model ISB

RS-232 Communication Ports

Remote Printer Capability

AC Power Supply

DC Power Supply

Display options available as LED or Vacuum Fluorescent

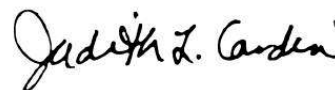
Approved available units: kg, g, lb, (t), ton

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.



Jack Kane
Chairman, NCWM, Inc.



Judith L. Cardin
Chairman, National Type Evaluation Program Committee
Issued Date: June 26, 2009


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Mettler-Toledo, Inc
Indicating Element
Model: IND131, IND331

Application: General purpose indicating element for use with approved and compatible weighing elements.

Identification: The required information appears on the top of the indicator. Capacity x division statement is on a badge adjacent to the weight display.

Sealing: The indicator can be sealed by threading a wire security seal through one of the slotted holes of the front panel cover and then through the hole in the sealing clip attached to the harsh enclosure or through holes in the screws heads on the J-Box, panel and DIN models. Access to metrological features will be denied when the device is set to Type Approved:

To verify type approval press the info icon "  ", then press the "→T←" button, the statement "Approved: Yes" will be displayed. Press the "→0←" button two times to exit back to the weighing mode.

Test Conditions: The emphasis of the evaluation was on device design, marking, operation, performance, and compliance with influence factors. Two model IND131, 120 VAC (one J-Box and one DIN Rail version) and two model IND331, 24 VDC (one harsh enclosure and one panel mount version) indicators were submitted for evaluation. The indicators were interfaced to a model CBU weighing element (Certificate of Conformance 02-081A1) and a load cell simulator to verify compliance with zero, zone of uncertainty, and motion detection requirements. Several increasing / decreasing tests were performed. Additionally, the devices were tested over a temperature range of -10° C to 40° C (14° F to 104° F). Tests were performed to verify the gram, kilogram, ton, metric ton and pound functions. Also, tests were conducted using power supplies of 100 VAC and 240 VAC additionally; tests were conducted using 18-36 V DC power supply.

Evaluated By: M Rieser (OH), Todd Lucas (OH)

Type Evaluation Criteria Used: NIST Handbook 44, 2009 Edition; NCWM Publication 14, 2009 Edition

Conclusion: The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Information Reviewed By: J. Truex (NCWM)

Examples of Device:

The examples below are representative of Models IND131 and IND331.

