



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: IND360
 $n_{\max}$: 100 000, 10 000
Accuracy Class: II / III / III L

Submitted By:

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Standard Features and Options**Standard Features:**

- Semi-Automatic (push-button) Zero Setting Mechanism (SAZSM)
- Semi-Automatic (push-button) Tare
- Initial Zero Setting Mechanism (IZSM)
- Multiple Range
- Multi-Interval
- RS485
- Modbus
- Profibus
- CANbus
- Analog Out
- Digital I/O
- Ethernet
- 4-20 mA
- AC/DC Power Supply
- 24 VDC Terminal Block
- Analog or Digital scale inputs
- Display options OLED or LCD
- Intrinsic Safe Barrier (ISB)
- Available units: kg, g, lb, (t), ton
- Multi-channel load cell capability

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.

Gene Robertson
Chair, NCWM, Inc.

Mahesh Albuquerque
Chair, NTEP Committee
Issued: April 29, 2024

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Mettler-Toledo, LLC
Indicating Element / IND360

Application: General purpose indicating element for use with NTEP certified and compatible weighing/load receiving element.

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

Sealing: The DIN Rail and Panel Mount versions are sealed using a self-destructive seal placed over the opening preventing access to the DIP switch and another self-destructive seal over the seam between the cover and housing. The Harsh enclosure version is sealed using a physical wire threaded through bolt heads or a self-destructive seal placed over a sleeve and screw preventing access to the DIP switch.

Test Conditions: This Certificate supersedes Certificate of Conformance 21-002A2 and is issued to add Multi-channel load cell capability to the Standard Features and Options. A model IND360 was interfaced to four load cell simulators, several increasing / decreasing tests, warm-up test, power interrupt test, and voltage variation tests were performed to verify compliance. Temperature tests were performed over a range of -10 °C to 40 °C (14 °F to 104 °F). Previous test conditions are listed below for reference.

Certificate of Conformance 21-002A2: This Certificate supersedes Certificate of Conformance 21-002A1 and is issued to add Intrinsic Safe Barrier (ISB) in the Standard Features and Options Box. A model IND360 was submitted and interfaced with Intrinsic Safe Barrier (ISB) and a load cell simulator. Multiple increasing / decreasing tests were performed to verify compliance. Previous test conditions are listed below for reference.

Certificate of Conformance 21-002A1: This Certificate supersedes Certificate of Conformance 21-002 and is issued to add accuracy Class II and Multiple Range, Multi-Interval capability for accuracy class III applications. A model IND360 was interfaced to PBK98x weighing load receiving element (Certificate of Conformance 14-085). Several increasing / decreasing tests were performed to verify compliance and multiple range and multi-interval portion of publication 14 was verified. Previous test conditions are listed below for reference.

Certificate of Conformance 21-002: The emphasis of the evaluation was on device design, marking, operation, performance, and compliance with influence factors. Three Model IND360 indicating elements (Harsh, Panel Mount and DIN Rail) were submitted for evaluation. The IND360 indicator was interfaced to a model PBA426 weighing/load receiving element (Certificate of Conformance 10-049) to verify compliance with zero, zone of uncertainty, and motion detection requirements. Additionally, the IND360 were interfaced to a load cell simulator to perform several increasing / decreasing tests, warm-up test and power interrupt test. Temperature tests were performed over a range of -10 °C to 40 °C (14 °F to 104 °F). The IND360 was interfaced to a digital load cell simulator to perform several increasing / decreasing tests and voltage variation test.

Evaluated By: J. Gibson (OH), M. Kelley (OH) 21-002; J. Gibson (OH) 21-002A1; J. Gibson, B. Stone (OH) 21-002A2; J. Coffey (OH) 21-002A3 (CN 11047)

Type Evaluation Criteria Used: NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2024 Edition. NCWM Publication 14 Weighing Devices, 2024 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) 21-002, 21-002A1, 21-002A2, 21-002A3



Mettler-Toledo, LLC
Indicating Element / IND360

Examples of Device:



DIN Rail

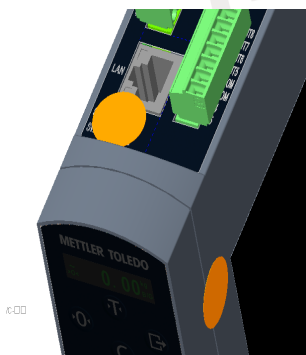


Panel Mount



Harsh Enclosure

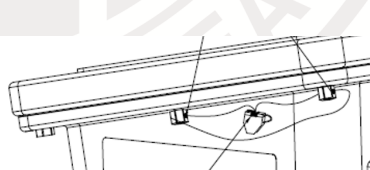
Sealing Method:



DIN Rail



Panel Mount



Harsh Enclosure

OR

