



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: IND780 & ACM780
 $n_{\max}$: 10 000 (Class III & III L)
100 000 (Class II)
Accuracy Class: II, III/ III L

Submitted By:

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Standard Features and Options

- $n_{\max}$: Class II: 100 000 with approved and compatible Class II weighing element
- Semi-Automatic (push-button) Zero Setting Mechanism
- Automatic Zero Setting Mechanism (AZSM)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (push-button) Tare
- Keyboard Tare
- Analog or Digital Platform Scale Inputs
- Gross/Net/Tare Display
- AC Power Supply
- Multiple Range Capability
- Unit Switching
- RS232 Port
- Multiple Scale Interface
- Summing Capability up to Four Scales
- IDNet (interfaced to compatible IDNet devices)
- Alphanumeric Display
- Accumulation Feature
- Remote Printer Capability
- Intrinsic Safe Barrier, Model ISB

Temperature Range: 0 °C to 40 °C (32 °F to 104 °F) Class II / -10 °C to 40 °C (14 °F to 104 °F) Class III / III L

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.

Ivan Hankins
Chair, NCWM, Inc.

Hal Prince
Chair, NTEP Committee
Issued: February 4, 2022

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**Mettler-Toledo, LLC**

Indicating Element / IND780 & ACM780

Application: General purpose indicating element for use with NTEP certified and compatible analog or digital weighing elements.

Identification: The required information for the Manufacture, Model, Serial Number, NTEP CC appears on a self-destructive label on the back of the indicator. The capacity x division statement and capacity in all weight ranges is on a label adjacent to the weight display.

The required information for the ACM780 will be located on a self-destructive label located on the side of the enclosure. The capacity x division statement will be near the weight display on the Data Bridge software.

Sealing: The metrological parameters are sealed using a physical wire seal.

The Panel Mount and ACM780 are sealed with a wire threaded through bolts at a distance such that the seal will be broken when an attempt is made to unscrew the bolts.

The Panel Mount requires an additional sealing cover for the metrological switch. The cover is sealed with a physical wire seal passed through bolt and tab on the cover preventing access to the switch

The Desk / Harsh enclosure is sealed by passing the wire through the center hole of the cover and then through a hole in a tab on the housing.

Access to metrological features will be denied when the device is set to Type Approved:

1. To verify type approval, press the info  icon.
2. Then press the metrology  icon.
3. The statement Security Switch “Approved” “Locked” will be displayed if the device is sealed legal for trade or the statement Security Switch “Not approved” “Unlocked” will be displayed if the device is not sealed legal for trade.
4. In either case press the exit  icon two times to exit back to the weighing mode.

Test Conditions: This Certificate supersedes Certificate of Conformance 06-017A2 and was issued to include the required sealing cover for the metrological switch for the Panel Mount enclosure type. Based on information supplied by the manufacturer no testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance Number 06-017A2: This Certificate supersedes Certificate of Conformance 06-017A1 and was issued to add model ACM780. The ACM780 is a blind unit with no display or keypad. When interfaced with Data Bridge software (NTEP Certificate of Conformance 97-014) and an approved and compatible weighing element form a complete system. Several increase / decrease test were performed to verify compliance. Based on information supplied by the manufacturer no additional testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance Number 06-017A1: This Certificate supersedes Certificate of Conformance 06-017 and was issued to better clarify the method of sealing for the enclosure types. Based on information supplied by the manufacturer no testing was deemed necessary.

Certificate of Conformance Number 06-017: The emphasis of the evaluation was on the device design, operation, and marking requirements and compliance with influence factors. The indicator was interfaced with a KA series (Certificate of Conformance Number 00-075A1) Class II approved load-receiving element to verify compliance with zero, zone of uncertainty, and motion detection requirements and an SW30 (Certificate of Conformance Number 98-110) approved load receiving element for class III / IIIL requirements. The device was tested over a temperature range of -10° C to 40° C (14° F to 104° F) using a load cell simulator. Tests were conducted using 100 VAC and 130 VAC.

**Mettler-Toledo, LLC**

Indicating Element / IND780 & ACM780

Evaluated By: A. McCoy (OH), W. West (OH) 06-017; J. Gibson (OH) 06-017A2; M. Manheim (NCWM) 06-017A3**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2017. NCWM, Publication 14: Weighing Devices, 2017.**Conclusion:** The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.**Information Reviewed By:** S. Patoray (NCWM), L. Bernetich (NCWM) 06-017; J. Truex (NCWM) 06-017A1, 06-017A2; D. Flocken (NCWM) 06-017A3**Examples of Device:**

Desk / Harsh



Panel Mount



ACM780

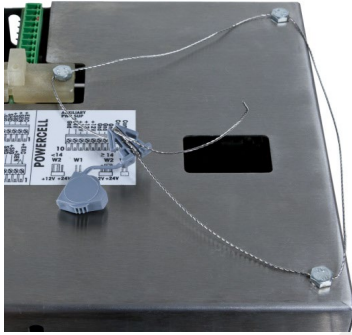




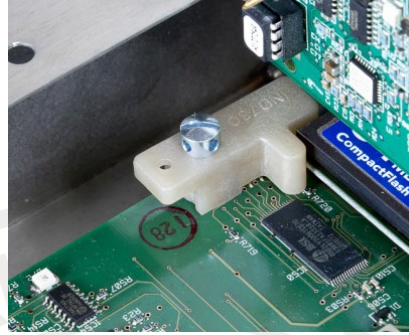
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Indicating Element / IND780 & ACM780

Examples of Sealing:



IND780 Panel Mount



Cover for Metrological Switch



Desk /Harsh
1029



ACM780