



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element

Digital Electronic

Models: ICS4x9-1, ICS6x9-1, ICS466x, ICS426x, ICS4x5 and ICS6x5

 n_{max} : 10 000 (Class III) / 32 000 (Class II)

Accuracy Class: III and II

Submitted By:

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- Semi-Automatic (push-button) Zero Setting Mechanism
- Automatic Zero Tracking (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (push-button) Tare
- Keyboard Tare
- Gross/Net/Tare Display
- Multi-Interval
- Multiple Range
- AC Power Supply
- AC/DC Adaptor
- Intrinsic Safe Power Supply (ICS466x, ICS426x)
- Unit Switching
- Screen Saver
- Power Save
- RS232/RS422/RS485
- Remote Printer Capability
- EtherNet Port
- USB Port
- Analog Platform Scale Inputs
- Digital Platform Scale Inputs
- Monochrome Display (ICS4x9-1, ICS466x, ICS426x and ICS4x5)
- Color Display (ICS6x9-1 and ICS6x5)
- Display Column

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.

Jerry Buendel
Chairman, NCWM, Inc.

Ronald Hayes
Chairman, National Type Evaluation Program Committee
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Mettler-Toledo, LLC

Indicating Element / ICS4x9-1, ICS6x9-1, ICS466x, ICS426x, ICS4x5 & ICS6x5

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

Identification: The required information appears on a self-destructive label on the back of the indicator. The capacity x division appear on the display in all weight ranges.

Sealing: The ICS4x9-1, ICS6x9-1, ICS4x5 and ICS6x5 can be sealed using a self-destructive seal which is placed over a screw preventing removal of the screw eliminating access to calibration and configuration parameters. The seal is located on the back of the enclosure.

The ICS466x and ICS426x can be sealed using a self-destructive seal placed over a screw which prevents removal of the screw or a wire seal threaded through two screw heads both methods prevent access to the calibration configuration switch. The self-destructive seal or wire seal is located on the back of the enclosure.

Test Conditions: This Certificate supersedes Certificate of Conformance Number 10-086A4 and is issued to include model ICS426x. The model ICS426x is metrologically equivalent to existing indicating elements. Based on this information supplied from the manufacturer no further testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance Number 10-086A4: This Certificate supersedes Certificate of Conformance Number 10-086A3 and is issued to include model ICS6x5. The model ICS6x5 is metrologically equivalent to existing indicating elements. Based on this information supplied from the manufacturer no further testing was deemed necessary.

Certificate of Conformance Number 10-086A3: This Certificate supersedes Certificate of Conformance Number 10-086A2 and is issued to include model ICS4x5. The model ICS4x5 is metrologically equivalent to existing indicating elements. Based on this information supplied from the manufacturer no further testing was deemed necessary.

Certificate of Conformance Number 10-086A2: This Certificate supersedes Certificate of Conformance Number 10-086A1 and is issued to include new model ICS466x with intrinsically safe power supply, and sealing method. The emphasis of the evaluation was on compliance with influence factors. The indicator was interfaced with a load cell simulator was interfaced to the device; several increasing/decreasing tests were performed. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Tests were conducted using 120 VAC. Additional increasing/decreasing tests, and discrimination/zone of uncertainty test were performed with the ICS466x interfaced to a Mettler Toledo model KA32 (Certificate of Conformance 00-075A1) Class II load receiving element.

Certificate of Conformance Number 10-086A1: This Certificate supersedes Certificate of Conformance Number 10-086 and is issued to include Class II approval. The indicator was interfaced to a Mettler Toledo model KA15 high precision load receiving element (Certificate of Conformance 00-075A1) for the purpose of this evaluation. Several increasing / decreasing test were performed. No additional testing was deemed necessary since it is a digital indicator.

Certificate of Conformance Number 10-086: The emphasis of the evaluation was on the device design, operation, marking requirements and compliance with influence factors. The indicator was interfaced with a PBA430 (Certificate of Conformance 06-067A1) Class III approved load receiving element and model 8870 Mettler Toledo printer to verify compliance with zero, zone of uncertainty, Tare and motion detection requirements. A load cell simulator was interfaced to the device for Class III, multi-interval and multiple range testing; several increasing/decreasing tests were performed. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Tests were conducted using 100 VAC and 240 VAC, 12 VDC.

Evaluated By: M. Kelley (OH) 10-086, 10-086A1; T. Buck (OH) 10-086A2

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2014 Edition. *NCWM Publication 14 Weighing Devices*, 2013 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) 10-086, 10-086A1, 10-086A2, 10-086A3, 10-086A4, 10-086A5



Mettler-Toledo, LLC

Indicating Element / ICS4x9-1, ICS6x9-1, ICS466x, ICS426x, ICS4x5 & ICS6x5

Examples of Device:



ICS4x9-1



ICS6x9-1



ICS466x



ICS4x9-1



ICS4x5



ICS6x5



ICS426x