U.S. Department of Commerce
National Institute of Standards and Technology
Gaithersburg, MD 20899

Certificate Number: 94-096A4

National Type Evaluation Program

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Models: Jaguar, JagMax or JagXtreme
n_{max}: Class III/III L = 10 000
Class II = 100 000

Accuracy Class: II/III/III L

Submitted by:

Mettler-Toledo, Inc.
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Standard Features and Options

Multiple scale interface
Switching and summing capability up to four scales
Units key (lb/kg)
Motion indicator
Keyboard tare
Semi-automatic tare
Semi-automatic zero
Gross/net/tare display
Automatic zero setting mechanism (AZSM)
Initial zero setting mechanism (IZSM) on Class II and III
Center of zero indicator, except in Class II applications (AZSM must be operational in Class II applications)
Vacuum fluorescent display

Options:

- Printer
- RS 232 interface
- Time and date printing capability
- Panel mounting capability
- Stainless steel enclosure
- Consecutive ticket numbering

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.

Effective Date: April 3, 2000

Gilbert M. Ugiansky, Ph.D.
Chief, Office of Weights and Measures
Issue Date: April 19, 2000

Mettler-Toledo, Inc.
Digital Electronic Indicating Element
Models: Jaguar, JagMax or JagXtreme

Application: Class III/III L applications: A general purpose indicating element to be interfaced with an approved and compatible analog or digital weighing element, and for use with multiple scales with scale switching and summing. Class II applications: Certified for use with compatible load receiving elements that supply a digital signal to the indicator.

Identification: A foil ID badge is glued to the left side of the desk top and panel mount indicators. A foil ID badge is glued to the right side of the stainless steel wall mount indicator.

Sealing: The desk top version of the indicator may be sealed with a wire security seal threaded through two drilled head screws close to the center of the cover.

Panel mount versions of the indicator do not have a back cover. A plate secures the circuit boards and access to calibration means. The plate may be sealed with a wire security seal threaded through two drilled head screws on the upper left side of the back of the indicator.

The stainless steel wall mount version of the indicator may be sealed using two wire security seals. One seal is applied to the left or right side of the enclosure and is passed through holes in the two door tabs on that side.

Test Conditions: This Certificate supersedes Certificate of Conformance Number 94-096A3 and is issued without testing and upon information provided by the manufacturer to include the Model JagXtreme. No change was made to the functions, circuits or software responsible for metrological measurements of the JagXtreme, and the Analog, Powercell, High Precision and other load cell interfaces are the same as for the Jaguar and JagMax. Previous test conditions are repeated below for reference.

Certificate of Conformance Number 94-096A3: This Certificate superseded Certificate of Conformance Number 94-096A2 and was issued to include the Model JagMax. For the purpose of the evaluation, the JagMax indicator was interfaced with four load cell simulators. The emphasis of the evaluation was on device design, operation, marking requirements, and compliance with influence factor requirements. The indicator was tested over a temperature range of -10 °C to 40°C (14 °F to 104°F). Additionally, tests were conducted using power supplies of 100 VAC and 130 VAC.

Certificate of Conformance Number 94-096A2: This Certificate superseded Certificate of Conformance Number 94-096A1 and was issued to include Class II approval. The indicator was interfaced with a Mettler-Toledo Model KA 15s high precision load receiving element for the purpose of this evaluation. The emphasis of the evaluation was on performance, operation, and marking requirements. Several increasing/ decreasing load tests were performed. The indicator was tested using 100 VAC and 130 VAC power supply. No further testing was deemed necessary.

Certificate of Conformance Number 94-096A1: This Certificate superseded Certificate of Conformance Number 94-096 and was issued to add an electronic interface for "power cell" load cells. Several increasing/ decreasing load tests were performed using a load cell simulator. No further testing was deemed necessary at this time.

Certificate of Conformance Number 94-096: The emphasis of the evaluation was on device design, operation, and compliance with influence factor requirements. The indicator was interfaced with both a load cell simulator and two approved scale bases for the purposes of this evaluation. The indicator was tested over a temperature range of -10 °C to 40°C (14 °F to 104°F). Additionally, tests were conducted using power supplies of 100 VAC and 130 VAC.

Results of the evaluations indicate the devices comply with applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1999 Edition

Tested By: W .West (OH) (94-096), A. McCoy (OH)