National Conference on Weights and Measures

15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

Certificate Number: 00-124

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

For:

Load Cell

Low Profile, Ring Type Models: RLC Series

n_{max}, Multiple Cell, Class III: 5000 n_{max}, Multiple Cell, Class III L: 10 000

Capacity: 500 kg to 5000 kg

Accuracy Class: III/III L

Submitted by:

Mettler-Toledo, Inc. 1150 Dearborn Drive Worthington, OH 43085

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Standard Features and Options

Capacity kg	V min (kg) Multiple, Class III	V min (kg) Multiple, Class IIIL
500	0.03	0.015
1000	0.06	0.030
2000	0.12	0.060
3500	0.21	0.105
5000	0.30	0.150

Minimum Dead Load: 0.0kg

Construction Material: Stainless Steel

Nominal Output:

2.0 mV/V

4-wire Design

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: December 22, 2000

Louis & Strawb Louis E. Straub

Chairman, NCWM, Inc.

Chairman, National Type Evaluation Program Committee

Issue date: December 28, 2000

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Mettler-Toledo Load Cell, Ring Type Model: RLC Series

Application: The load cells may be used in Class III and III L scales for multiple cell applications consistent with the model designations, number of scale divisions, and parameters specified in this certificate. Load cells of a given accuracy class may be used in applications with lower accuracy class requirements provided the number of scale divisions, the v_{min} values, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions (n_{max}) and with larger v_{min} values than those listed on the certificate. However, the load cells must be marked with the appropriate v_{min} for which the load cell may be used.

Identification: A pressure sensitive identification badge with the manufacturer, model designation, and serial number is on the load cell. All other required information must be on an accompanying document including the serial number of the load cell.

Test Conditions: This certificate is based on the following tests and information provided by the manufacturer. Two 2000 kg capacity load cells were tested at NIST using dead weights as the reference standard. The data were analyzed for multiple load cell applications. The cells were tested over a temperature range of -10 °C to 40 °C. Three tests were run on each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed. The barometric pressure test was performed.

The results of the evaluation indicate the devices comply with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 2000 Edition

Tested By: NIST Force Group, NIST Office of Weights and Measures

Information Reviewed By: S. Patoray (NCWM) 00-124