



NATIONAL TYPE EVALUATION PROGRAM

*Certificate of Conformance*  
*for Weighing and Measuring Devices*

**For:**

Load Cell  
Single Point, Compression  
Model: MT Series\*  
 $n_{max}$ : 5000 Single Cell, Class III  
 $n_{max}$ : 5000 Multiple Cell, Class III  
Capacity: 3 kg to 750 kg  
Accuracy Class: III

**Submitted By:**

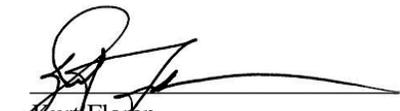
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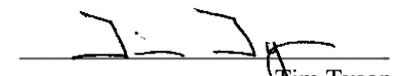
**Standard Features and Options**

- \* The specific capacities and,  $v_{min}$  values of load cells covered by this certificate are listed in the table on Page 2.
- The series is identified by the model designation followed by a suffix, which represents the load cell capacity.
  - Material: Aluminum
  - Cable: MT1022: 4-wire design
  - MT1041, MT1241 and MT1260: 6-wire Design
  - Nominal Input Impedance: 400 Ohms
  - Excitation Voltage: 5.0 volt to 15 volt (maximum) AC/DC
  - Nominal Output: 2 mV/V
  - Minimum Dead Load: 0 kg

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.

  
Kurt Floren  
Chairman, NCWM, Inc.

  
Jim Tyson  
Chairman, National Type Evaluation Program Committee  
Issued: September 14, 2011

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**Mettler-Toledo, Inc.**  
**Load Cell / MT Series**

**Application:** The load cells may be used in Class III scales for both single and 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 cells with fewer scale 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  $n_{\max}$  and  $v_{\min}$  for which the load cell may be used.

**Load Cell Parameters:**

Model	Capacity (kg)	$v_{\min}$ (kg)
MT1022	3	0.0003
MT1022	3.5	0.00035
MT1022	5	0.0005
MT1022	7	0.0007
MT1022	10	0.001
MT1022	15	0.0015
MT1022	20	0.002
MT1022	30*	0.003
MT1041	10	0.001
MT1041	15	0.0015
MT1041	20	0.002
MT1041	30	0.003
MT1041	50	0.005
MT1041	75	0.0075
MT1041	100	0.01
MT1241	30	0.003
MT1241	50*	0.005
MT1241	100	0.01
MT1241	150	0.015
MT1241	200	0.02
MT1241	250	0.025
MT1260	50	0.005
MT1260	75	0.0075
MT1260	100	0.01
MT1260	150	0.015
MT1260	200	0.02
MT1260	250*	0.025
MT1260	300	0.03
MT1260	500	0.05
MT1260	635	0.0635
MT1260	750	0.075

\*Load Cells submitted for testing

**Identification:** A pressure sensitive identification badge containing the manufacturer, model designation, and serial number is located on the load cell. All other required information, if not marked on the load cell, must be on an accompanying document including the serial number of the load cell.



**Mettler-Toledo, Inc.**

**Load Cell / MT Series**

**Test Conditions:** Test data was analyzed for a 30 kg, a 50 kg, and a 250 kg load cell, tested using dead weights as the reference standard. The data was analyzed for Class III single and multiple load cell applications. The cells were tested over a temperature range of -10 °C to 40 °C. Three tests were run at each temperature. The temperature effect on zero balance condition was measured and a time dependence (creep) test and creep recovery test was performed. The barometric pressure test was waived due to the insensitivity of the load cell design to changes in barometric pressure. NCWM Publication 14 selection criteria was used to determine cells tested.

**Evaluated By:** K. Jones (CA)

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2011. NCWM, Publication 14: Weighing Devices, 2011.

**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)

**Examples of Device:**



Model MT1022 (4-wire design)



Model MT1041 (6-wire design)