



NATIONAL TYPE EVALUATION PROGRAM

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

**For:**

Load Cell  
Compression  
Model: T34  
 $n_{\max}$  Multiple Cell, Class III L: 10 000  
Capacity: 15t to 60t (15 000 to 60 000 kg)  
Accuracy Class: III L

**Submitted By:**

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**Standard Features and Options**

The specific models covered by this Certificate are listed on Page 2 and are identified by the model designation T34.

The specific load cell capacities,  $v_{\min}$  values, and minimum dead loads are listed on Page 2.

- Nominal Output: 2.0 mV/V
- 6-Wire Design
- Excitation Voltage: Up to 15V

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.

John Gaccione  
Chairman, NCWM, Inc.

Stephen Benjamin  
Chairman, National Type Evaluation Program Committee  
Issued: August 1, 2013

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## Thames Side Sensors LTD

### Load Cell / T34

**Application:** The load cells may be used in Class 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  $n_{\max}$  and  $v_{\min}$  for which the load cell may be used.

**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.

#### Load Cell Parameters:

Model	Capacity in metric ton (t)	Multiple 10 000 $v_{\min}$ Class III L (kg)	Minimum Dead Load (kg)
T34	15	0.75	0
T34	20	1.00	0
T34	25	1.25	0
T34	30	1.50	0
T34	40	2.00	0
T34	50	2.50	0
T34	60	3.00	0

**Test Conditions:** This certificate was issued based upon the following tests and information provided by the manufacturer. Two 30 000 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  $-10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ . 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 also conducted due to the sensitivity of the load cell design to changes in barometric pressure. NCWM Pub 14 selection criteria was used to determine load cells to be tested.

**Evaluated By:** K. Chesnutwood (NIST Mass & Force Group)

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2013. NCWM, Publication 14: Weighing Devices, 2013.

**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:

