# **National Conference on Weights and Measures**

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

Certificate Number: 07-037 Page 1 of 3

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

For:

Force Transducer (Load Cell) Compression Model: RC3 Series\* n<sub>max</sub>: 6000; Multiple Cell Capacity: 7.5 t to 75 t

Accuracy Class: III

#### Submitted by:

Flintec, Inc. 18A Kane Industrial Drive Hudson, MA 01749 Contact: Joseph Antkowiak Tel: (978) 562-7800 Fax: (978) 562-0008

## **Standard Features and Options**

\* The specific capacities,  $v_{min}$  values covered by this certificate are listed in the table on Page 2.

Minimum dead load: 0.0 kg Material: Stainless steel Cable: 4-wire design, or 6-wire design Nominal input impedance: 1000 ohms Nominal output: 2 mV/V Excitation voltage: 5.0 volt (minimum) to 15 volt (maximum) AC/DC

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.

Mike Cleary Chairman, NCWM, Inc. Don Onwiler Chairman, National Type Evaluation Program Committee Issued Date: March 23, 2007

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

## Flintec, Inc. Load Cell Model: RC3 Series

**Application:** The load cells may be used in Class III 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 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 ( metric ton)	v <sub>min</sub> (kg)	Capacity (lb)	v <sub>min</sub> (lb)
RC3	7.5	0.6		
RC3	15	1.3		
RC3	22.5	1.9	50 000	4.3
RC3*	30	2.6		
RC3	40	3.5		
RC3	50	4.3	100 000	8.6
RC3	75	6.5	150 000	12.9

### \*Load cell tested

**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.

<u>**Test Conditions:**</u> Test data was analyzed for the 30 t load cells. Two 30 t load cells, one 4-wire cable and one 6-wire cable were tested using dead weights as the reference standard. The data was analyzed for 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 was measured and a time dependence (creep) test was performed. The barometric pressure test was conducted on these load cells.

Type Evaluation Criteria Used: NIST Handbook 44, 2007 Edition, NCWM Publication 14, 2006 Edition

Tested By: T. Bartel (NIST)

<u>Conclusion</u>: The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Information Reviewed By: S. Patoray, L. Bernetich (NCWM)

## Flintec, Inc. Load Cell Model: RC3 Series

# Example of RC3:

