



NATIONAL TYPE EVALUATION PROGRAM

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

**For:**

Load Cell  
Shear Beam, Compression  
Model Family: 603131-xk  
 $n_{max}$ : 5000, Multiple Cell, Class III  
10 000, Multiple Cell, Class IIIIL  
Capacity: 1000 lb to 10 000 lb

Accuracy Class: III/IIIIL

**Submitted By:**

Intercomp  
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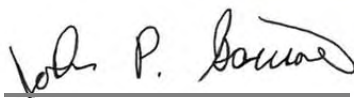
**Standard Features and Options**

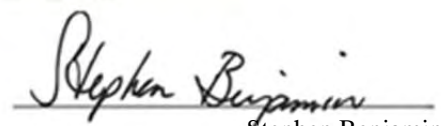
\*The specific load cell capacities,  $v_{min}$  values, and minimum dead loads are listed on page 2 and are identified by the model designation 603131-xk, where the x represents the load cell capacity in thousands of a pound

Nominal Output: 2 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 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  
Committee Chair, National Type Evaluation Program Committee  
Issued: September 5, 2013

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**Intercomp**  
Load Cell / 603131-xk

**Application:** The load cells may be used in both 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 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 Number	Capacity (lb)	$v_{\min}$ (lb)		Minimum Dead Load (lb)
		Multiple Cell III	Multiple Cell III L	
603131-1K	1 000	0.07	0.04	20
603131-1.5K	1 500	0.10	0.06	30
603131-2K	2 000	0.14	0.08	40
603131-2.5K	2 500	0.18	0.10	50
603131-3K	3 000	0.21	0.12	60
603131-4K	4 000	0.28	0.16	80
603131-5K	5 000	0.35	0.20	100
603131-6K	6 000	0.42	0.24	120
603131-7.5K	7 500	0.54	0.30	150
603131-10K	10 000	0.70	0.40	200

**Identification:** A foil identification label is attached to the cell. The label includes the manufacturer name, model, capacity, serial number, Class, certificate number and  $v_{\min}$ . Other required information must be on the label or contained in an accompanying document.

**Test Conditions:** This Certificate is issued based upon the following tests and upon information provided by the manufacturer. Two 4 000-lb 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 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 waived due to the insensitivity of the load cell design to changes in barometric pressure. NCWM Publication 14 criteria was used to select the cells for testing.

**Evaluated By:** NIST Force Group, NIST Office of Weights and Measures

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



**Intercomp**  
Load Cell / 603131-xk

**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)

**Example of Device:**

