

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Load Cell Shear Beam, Compression Model: EBP-1A Series n<sub>max</sub> Multiple Cell: 5 000 / 10 000 Accuracy Class: III / III L Submitted By: Vishay Transducers, Ltd. 3 Edgewater Drive Norwood, MA 02062 Tel: 781-298-2200 Fax: 781-762-3988 Contact: Bruce Yohr Email: <u>bruce.yohr@vishaypg.com</u> Web site: <u>www.vishaypg.com</u>

**Standard Features and Options** 

The specific load cell capacities, v<sub>min</sub> values, and minimum dead loads are listed on page 2.

### **Standard Features:**

- Counterforce Material: Stainless Steel
- Number of Wires in Cable: 4-wire Design
- Nominal Output: 2 mV/V

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.

Tim Tyson

Chairman, NCWM, Inc.

Chairman, National Type Evaluation Program Committee Issued: June 3, 2011

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# Vishay Transducers, Ltd.

Load Cell / EBP-1A Series

Model Number	Capacity (lb)	v <sub>min</sub> (lb)		Minimum Dead Load
		Multiple Cell III	Multiple Cell III L	
EBP-1A	1 000	0.07	0.04	20
EBP-1A	1 500	0.10	0.06	30
EBP-1A	2 000	0.14	0.08	40
EBP-1A	2 500	0.18	0.10	50
EBP-1A	3 000	0.21	0.12	60
EBP-1A	4 000	0.28	0.16	80
EBP-1A	5 000	0.35	0.20	100
EBP-1A	6 000	0.42	0.24	120
EBP-1A	7 500	0.54	0.30	150

### Load Cell Parameters:

**<u>Application</u>**: 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.

<u>Test Conditions</u>: This Certificate supersedes Certificate of Conformance number 04-045 and was issued without additional testing to reactivate Certificate of Conformance number 04-045 without lapse. Changes were also made to update the contact information. Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 04-045</u>: 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 °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 waived due to the insensitivity of the load cell design to changes in barometric pressure.

**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, 2011. NCWM, Publication 14: Weighing Devices, 2011.

<u>Conclusion</u>: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: S. Patoray (NCWM), L. Bernetich (NCWM) 04-045; J. Truex (NCWM) 04-045A1

## **Examples of Device:**

