



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell
Shear Beam, Compression
Model: SBP-1A Series
 n_{max} Single Cell: 3 000
 n_{max} Multiple Cell / Class III: 5 000
 n_{max} Multiple Cell / Class III L: 10 000
Capacity: 1 000 to 10 000 lb
Accuracy Class: III

Submitted By:

Vishay Transducers, Ltd.
5920 South 194th Street
Kent, WA 98032
Tel: 919-374-5774
Fax: 781-762-3988
Contact: Ric Rummel
Email: ric.rummel@vpgsensors.com
Web site: www.blhnobel.com

Standard Features and Options

The specific load cells covered by this Certificate are identified by the load cell capacities.

Standard Features:

- Counterforce Material: Alloy Steel
- Number of Wires in Cable: 4-wire design
- Nominal Output: 3 mV/V

Capacity (lb)	Single v_{min} (lb)	Multiple Class III v_{min} (lb)	Multiple Class III L v_{min} (lb)	Minimum Dead Load (lb)
1 000	0.09	0.07	0.04	20
1 500	0.135	0.105	0.06	30
2 000	0.18	0.14	0.08	40
2 500	0.225	0.18	0.10	50
3 000	0.27	0.21	0.12	60
4 000	0.36	0.28	0.16	80
5 000	0.45	0.35	0.20	100
10 000	0.90	0.71	0.40	200

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.

Craig VanBuren
Chairman, NCWM, Inc.

Stephen Benjamin
Chair, NTEP Committee
Issued: May 8, 2020

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

The National Conference on Weights and Measures (NCWM) 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.



Vishay Transducers, Ltd.

Load Cell / SBP-1A

Application: The load cells may be used in Class III scales for both single and multiple cell applications and in Class III L for multiple cell applications, consistent with the model designations 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.

Test Conditions: This Certificate of Conformance Number supersedes Certificate of Conformance Number 04-044A1 and was issued to indicate a sale of company from Vishay Precision Group to Vishay Transducers. No additional testing was required. Previous Test Conditions are listed below for reference.

Certificate of Conformance Number 04-044A1: This Certificate supersedes Certificate of Conformance number 04-044 and was issued without additional testing to reactivate Certificate of Conformance number 04-044 without lapse. Changes were also made to update the contact information. Previous test conditions are listed below for reference.

Certificate of Conformance Number 04-044: This certificate is issued based upon the following tests and upon information provided by the manufacturer. Two 2 500 lb capacity load cells were tested using dead weights. The data were analyzed for both single and multiple load cell applications for Class III applications for Class III L multiple 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. The manufacturer's laboratory was used to collect the test data.

Evaluated By: NIST Force Group, NIST Office of Weights and Measures; M. Manheim (NCWM) 04-044A2

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: S. Patoray (NCWM), L. Bernetich (NCWM) 04-044; J. Truex (NCWM) 04-044A1; D. Flocken (NCWM) 04-044A2

Example of Device:

