NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Force Transducer {Load Cell)
Bending Beam
Model: HI SBHF14 Series
n_{max}: Single Cell: 4000
n_{max}: Multiple Cells: 5000
Capacity: 500 lb to 5000 lb

Accuracy Class: III

***Submitted By: Contact Info. Updated December 2018**
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Standard Features and Options

The specific capacities, v_{min} values, and minimum dead loads of load cells covered by this Certificate are listed below. The HI SBHF14 Series is identified by the model designation HI SBHF14-X-Y, where "X" represent the load cell capacity and "Y" denotes the characters HB which represents a blind loading hole, CU which identifies a counterbored loading hole with unified threads, CM which represents a counterbored loading hole with metric threads, or MT which denotes a blind loading hole with customer specific features that do not effect the metrological characteristics of the load cell.

Model	Capacity (lb)	v_{min} (lb)		Minimum Dead Load (lb)
		Single	Multiple	
HI SBHF14-500	500	0.04	0.03	0
HI SBHF14-1K	1000	0.08	0.06	0
HI SBHF14-2.5K	2500*	0.20	0.16	0
HI SBHF14-5K	5000	0.40	0.32	0

* Load cell capacity submitted for type evaluation.

Nominal output: 2 mV/V

4-wire design

Counterforce Material: Stainless Steel

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.

Brett Gurney
Chairman, NCWM, Inc.

James Cassidy
Committee Chair, NTEP Committee
Issued: September 24, 2004

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Hardy Instruments, Inc.

Bending Beam Load Cell / HI SBHF14 Series

Application: The load cells may be used in Class III scales for both single and 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.

Test Conditions: This certificate is issued based upon the following tests and upon information provided by the manufacturer. Two 2500-lb capacity load cells (HB versions) were tested at NIST using dead weights as the reference standard. The data were analyzed for single and 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, 1998 Edition, NCWM Publication 14, 1998 Edition

Conclusion: 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)