NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Load Cell
Load Stainless Steel Bending Beam
Model: SB4 Series*
n_{max}, Single Cell: 3000
n_{max}, Multiple Cell: 5000
Capacity: 5 kN - 50 kN (1000 lb - 10 000 lb)

Accuracy Class: III

***Submitted By: Contact Info. Updated October 2025**
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Standard Features and Options

Class III							
Capacity			Single Cell		Multiple Cell		Minimum
Code	kN	lb	N	lb	N	lb	
SB4-5kN	5	-	0.25	-	0.63	-	0
SB4-1K	-	1 000	-	0.05	-	0.13	0
SB4-1.25K	-	1 250	-	0.06	-	0.16	0
SB4-2.5K	-	2 500	-	0.13	-	0.31	0
SB4-10kN	10	-	0.50	-	1.25	-	0
SB4-20kN	20	-	1.00	-	2.50	-	0
SB4-23kN	23	-	1.15	-	2.88	-	0
SB4-5K	-	5 000	-	0.25	-	0.63	0
SB4-50kN	50	-	2.50	-	6.25	-	0
SB4-10K	-	10 000	-	0.50	-	1.25	0

** 1kN (one thousand Newtons) = 224.81 lb (Pounds Force)

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 *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. *Editorial changes, not affecting the type or metrological content, corrected this certificate.

Ivan Hankins
Chairman, NCWM, Inc.

Hal Prince
Chair, NTEP Committee
Issued: May 30, 1996

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Flintab, Inc.

Load Cell, Bending Beam / SB4 Series

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

Test Conditions: This Certificate supersedes Certificate of Conformance Number 90-086A1 and is issued without additional testing to correct an error in the declared v_{min} values listed in the table on page 1. Previous test conditions are listed below for reference.

Certificate of Conformance Number 90-086A1: This Certificate supersedes Certificate of Conformance (CC) Number 90-086 and is issued include pound equivalents and to include Class III, multiple cell applications with 5000 divisions. An additional 20-kN capacity load cell was tested at NIST using dead weights as the reference standard. The data were analyzed for single and multiple load cell applications. The cell was tested over a temperature range of -10 °C to 40 °C. The excitation voltage was 10.0 Vdc. Three tests were run on the 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 NIST Force Group, NIST Office of Weights and Measures reanalyzed the previous test data for CC 90-086 and concluded that the test data supported Class III multiple-cell applications with 5000 divisions. Previous test conditions are listed below for reference.

Certificate of Conformance Number 90-086: One 20-kN capacity load cell was tested at NIST using dead weights as the reference standard. The data were analyzed for single load cell applications. The cell was tested over a temperature range of -10 °C to 40 °C. The excitation voltage was 10.0 Vdc. Three tests were run on the 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.

Type Evaluation Criteria Used: NIST Handbook 44, 1996 Edition

Tested By: NIST Force Group, NIST Office of Weights and Measures

Update Reviewed By: D. M. Ripley (NIST) (90-086A1)