National Conference on Weights and Measures

15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

Certificate Number: 99-153A1

National Type Evaluation Program
Certificate of Conformance for Weighing and Measuring Devices

For:
Load Cell
Double ended Shear Beam
Model: BDC-6-XXXK-N-YYYY*
9103-AAA-XXXK-YYYY**
n_{max}: Multiple Cell, Class III: 5000
n_{max}: Multiple Cell, Class IIIL: 10 000
Capacity: 10 000 lb to 100 000 lb (See Page 2)
Accuracy Class: III/III L

Submitted by:
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Standard Features and Options

The specific models covered by this Certificate are listed below and are identified by the model designations BDC-6 and 9103 followed by suffixes which are listed below:

* BDC-6-XXXK-N-YYYY where: the XXXK represents rated capacity (K=1000 lbs); the N denotes NTEP; and the YYYY defines non-standard features which do not affect any metrological characteristics (for example, special color).

** 9103-AAA-XXXK-YYYY where: the AAA designates accuracy parameters (A5 or B10); the XXXK represents rated capacity (K=1000 lbs); and the YYYY defines non-standard features which do not affect any metrological characteristics (for example, special color)

The specific load cell capacities, v_{min} values, and minimum dead loads are listed on Page 2.

Nominal output: 3.0 mV/V
4-wire design
Excitation voltage: 10 VDC

Temperature Range: -10 ˚C to 40 ˚C (14 ˚F to 104 ˚F)

This device was evaluated under the National Type Evaluation Program (NTEP) 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.

Effective Date: January 18, 2000

Louis E. Straub
Chairman, NCWM, Inc.

G. Weston Diggs
Chairman, National Type Evaluation Program Committee

Issue date: February 7, 2000

This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

Revere Transducers, Inc.
Double Ended Shear Beam Load Cell
Model: BDC-6-XXXK-N-YYYY/9103-AAA-XXXK-YYYY

Application: The load cells may be used in 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 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.

Load Cell Parameters:

Model	Capacity (lb)	Multiple		Minimum Dead Load (lb)
		5000 v_{min} Class III (lb)	10 000 v_{min} Class III L (lb)	
BDC-6-10K-N	10 000	1.000	0.325	1000
BDC-6-15K-N	15 000	1.500	0.488	1000
BDC-6-20K-N	20 000	2.000	0.650	1000
BDC-6-25K-N	25 000	2.500	0.813	1000
BDC-6-30K-N	30 000	3.000	0.975	1000
BDC-6-40K-N	40 000	4.000	1.300	1000
BDC-6-50K-N	50 000	5.000	1.625	1000
BDC-6-60K-N	60 000	6.000	1.950	1000
BDC-6-75K-N	75 000	7.500	2.438	1000
BDC-6-90K-N	90 000	9.000	2.925	1000
BDC-6-100K-N	100 000	10.000	3.250	1000

Test Conditions: This Certificate supersedes Certificate of Conformance Number 99-153 and is issued without additional testing to change the name of the company on the Certificate from Revere Transducers/NV Technology to Revere Transducers, Inc. Previous test conditions are listed below for reference.

Certificate of Conformance Number 99-153: Two 40 000 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.

The results of the evaluations indicate that the load cells comply with applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 2000 Edition

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

Information Reviewed By: G. Newrock (NIST), L. Sebring (NIST), and J. Williams (NIST) 99-153; L. Sebring (NIST) and G. Newrock (NIST) 99-153A1