

National Conference on Weights and Measures
15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

Certificate Number: 87-063A2

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

For:

Load Cell
Tension S-Cell
Model Family: 363-A3 and 363-B10
 n_{\max} , Single Cell, Class III: 3,000
 n_{\max} , Single Cell, Class III L: 10,000
Capacity: 100 to 10,000 lb
Accuracy Class: III/IIIL

Submitted by:

Revere Transducers, Inc.
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Standard Features and Options

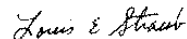
*The specific models of load cells covered by this Certificate for Class III, Models 363-A3-XXX-YYYY; for Class III L, models 363-B10-XXX-YYYY where XXX is the capacity code and YYYY is a designator for the electrical cable length, wiring color code, and private label variations. The number following the "B" may be less than 10 since it corresponds to the maximum number of divisions for which individual load cells comply with Handbook 44.

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

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: November 18, 1991



Louis E. Straub
Chairman, NCWM, Inc.



G. Weston Diggs
Chairman, National Type Evaluation Program Committee
Issue date: March 19, 1992

Note: The National Conference on Weights and Measures 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.

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.
Tension S-Cell Load Cell
Model Family: 363-A3 and 363-B10

Application: The load cells may be used in both Class III and III L 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 following parameters are indicated in pounds.

Capacity		Class III v_{\min}	Class III L v_{\min}	Minimum Dead Load
Code	lb			
100	100	0.01	0.003	2
200	200	0.02	0.006	2
300	300	0.03	0.01	2
500	500	0.05	0.016	5
750	750	0.08	0.025	5
1K	1,000	0.10	0.033	10
1.5K	1,500	0.15	0.050	10
2K	2,000	0.20	0.066	10
3K	3,000	0.30	0.10	10
5K	5,000	0.50	0.16	10
10K	10,000	1.00	0.33	10

The following parameters are indicated in kilograms:

Capacity Code	V_{\min} Class III	V_{\min} Class III L	Minimum Dead Load
50 kg	.006	.002	.9
0.1t	.011	.003	.9
.25t	.028	.008	2.3
0.5t	.055	.017	4.5
1.0t	.110	.033	4.5
2.5t	.275	.083	4.5
5.0t	.550	.165	4.5

**Revere Transducers, Inc.
Tension S-Cell Load Cell
Model Family: 363-A3 and 363-B10**

Test Conditions:

This certificate supercedes Certificate of Conformance No. 87-063 Amended (dated April 5, 1989) and 87-063.A1 and is issued to reflect new values for v_{\min} based upon the change to Handbook 44 performance requirements for the temperature effect on zero, effective January 1, 1991. This change effects capacities ranging from 100 to 2,000 lb. Certificate No. 87-063 Amended remains in effect for those load cells manufactured under that certificate.

One 500-lb and one 100-lb capacity load cell were each tested using known test weights to collect the data for Certificate of Conformance Number 87-063 (dated December 10, 1987). One 3,000-lb capacity load cell was tested using dead weights as the reference standard. The data were analyzed for both single and multiple load cell applications. The cells were tested over a temperature range of -10 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.

Representatives from the National Institute of Standards and Technology evaluated the manufacturer's test facility, witnessed repeat tests on the load cells, and analyzed the data. The results indicate that the load cells comply with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1991 Edition

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

Reviewed By: Henry Oppermann, Terry Grimes