



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell
Single Point Load Cell
Model: LFB Series
 n_{max} : 5 000, Class III, Single and Multiple Cell
Capacity: 100 lb to 1000 lb / 45 kg to 453 kg
Accuracy Class: III

Submitted By:

Cardinal Scale Manufacturing Company, Inc.
102 East Daugherty Street
Webb City, MO 64870
Tel: 417-673-4631 ext. 211
Fax: 417-673-2153
Contact: Eric Golden
Email: egolden@cardet.com
Web site: www.cardinalscales.com

Standard Features and Options

- The LFB Series is identified by the Model Number LFB-(XXX)(YYY), where (XXX) represents the load cell capacity in pounds, and (YYY) represents optional non-metrological features.
- Nominal Output: 2.0 mV/V
- Stainless Steel
- 4 Wire Design

Capacity (lb)	Capacity (kg)	V _{min} (lb)	V _{min} (kg)
100	45	0.02	0.009
200	90	0.04	0.018
250 *	113	0.05	0.023
300	136	0.06	0.027
400	181	0.08	0.036
500	226	0.10	0.045
600	272	0.12	0.054
700	317	0.14	0.064
800	362	0.16	0.073
900	408	0.18	0.082
1000	453	0.20	0.091

*Load cell tested

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.

Hal Prince
Chairman, NCWM, Inc.

Craig VanBuren
Chair, NTEP Committee
Issued: July 24, 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.



Cardinal Scale Manufacturing Company, Inc.

Load Cell / LFB Series

Application: The load cells may be used in Class III scales for single or 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} value, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions (n_{\max}) and with greater 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 label located on the cell, states manufacturer name, model number, serial number, rated capacity, rated output, V_{\min} , class, CC number and country of origin. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

Test Conditions: 250 lb capacity load cell was tested using dead weights as the reference standard. The data was analyzed for single and multiple cell applications. The load cells were tested over a temperature range of -10°C to 40°C (14°F to 104°F). 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. NCWM Publication 14 selection criteria were used to issue this certificate.

Evaluated By: K. Chesnutwood (NIST Force and Mass Group)

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2020 Edition. *NCWM Publication 14 Measuring Devices*, 2020 Edition.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: D. Flocken (NCWM)

Example(s) of Device:

