



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell
 Compression
 Model: AC Series
 n_{max} : 10 000, Class III L / Multiple Cell
 Capacity: 7500 kg to 75 000 kg (16 500 lb to 165 000 lb)

Accuracy Class: III L

Submitted By:

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Standard Features and Options

- Nominal Output: 2 mV/V
- 6-wire Design
- Material: Stainless Steel
- Minimum dead load: 0 kg / 0 lb
- Load Cell Parameters: *capacity evaluated

Capacity (kg)	Capacity (lb)	Multiple Cell / Class III L n_{max} 10 000 v_{min} (kg)	Multiple Cell / Class III L n_{max} 10 000 v_{min} (lb)
7500	16 500	0.23	0.50
10 000	25 000	0.30	0.76
15 000	30 000	0.45	0.91
20 000	45 000	0.61	1.36
25 000	50 000	0.76	1.52
30 000*	65 000	0.91	1.97
40 000	75 000	1.21	2.27
50 000	100 000	1.52	3.0
60 000	150 000	1.82	4.55
75 000	165 000	2.27	5.0

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.

James P. Cassidy Jr.

James Cassidy
 Chairman, NCWM, Inc.

Kristin Macey

Kristin Macey
 Chairman, National Type Evaluation Program Committee
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Cardinal Scale Manufacturing Company

Load Cell / AC Series

Application: The load cells may be used in Class III, 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 non-detachable identification label located on the cell, states manufacturer name, model, serial number, accuracy class, n_{\max} , v_{\min} , direction of loading, M (multiple cell) and capacity.

Test Conditions: This certificate is issued based upon the following tests and upon information provided by the manufacturer. Two 30 000 kg load cells were tested at NIST using dead weights as the reference standard. The data were analyzed for multiple load cell applications. The cell was tested over a temperature range of -10 °C to 40 °C. 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 also performed. NCWM Publication 14 selection criteria were used to determine cells tested.

Evaluated By: K. Chesnutwood (NIST Force Group)

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2017. NCWM, Publication 14: Weighing Devices, 2017.

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

Information Reviewed By: J. Truex (NCWM)

Example of Device:

