



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance
for Weighing and Measuring Devices

For:

Load Cell
Beam
Model: SSPW Series
n_{max}: 5000, Class III / Single Cell
Capacity: 15 kg to 400 kg (30 lb to 900 lb)

Accuracy Class: III

Submitted By:

Cardinal Scale Manufacturing Company
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Standard Features and Options

- Nominal Output: 2 mV/V
- 4-wire and 6-wire Design
- Material: Alloy Steel (50 to 400 kg / 100 to 900 lb cells) and Stainless Steel (15-400 kg / 30 to 900 lb cells)
- Minimum dead load: 0 kg
- Load Cell Parameters: *capacity evaluated

Capacity (kg)	Capacity (lb)	Single Cell / Class III n _{max} 5000 v _{min} (kg)	Single Cell Class III n _{max} 5000 v _{min} (lb)
15	30	0.001	0.003
20	50	0.002	0.005
30	70	0.003	0.007
50*	100	0.005	0.010
75	150	0.0075	0.015
120*	250	0.012	0.025
200	500	0.020	0.050
350	750	0.035	0.075
400	900	0.040	0.090

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 / SSPW Series

Application: The load cells may be used in Class III 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 and serial number. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

Test Conditions: A 50 kg and two 120 kg load cells were tested at NIST using dead weights as the reference standard. The data were analyzed for single load cell applications. The cells were tested over a temperature range of $-10\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$. Tests were run on the cells 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 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:

