



NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**

Load Cell  
Beam  
Model: CB6  
n<sub>max</sub>: 4000, Class III / Single Cell  
5000, Class III / Multiple Cell  
10 000, Class III L / Multiple Cell  
Capacity: 5 kg to 750 kg  
Accuracy Class: III / III L

**Submitted By:**

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**Standard Features and Options**

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

Capacity (kg)	Single Cell / Class III	Multiple Cell / Class III	Multiple Cell / Class III L
	n <sub>max</sub> 4000 V <sub>min</sub> (kg)	n <sub>max</sub> 5000 V <sub>min</sub> (kg)	n <sub>max</sub> 10 000 V <sub>min</sub> (kg)
5*	0.0005	0.0004	0.0002
10	0.001	0.0008	0.0004
15*	0.0015	0.0012	0.0006
20	0.002	0.0016	0.0008
30	0.003	0.0024	0.0012
50*	0.005	0.004	0.002
75	0.0075	0.006	0.003
100	0.010	0.008	0.004
150	0.015	0.012	0.006
200*	0.02	0.016	0.008
250	0.025	0.020	0.010
300	0.03	0.024	0.012
500	0.05	0.040	0.020
750*	0.075	0.060	0.030

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 *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. \*Editorial changes, not affecting the type or metrological content, corrected this certificate.



Hal Prince  
Chairman, NCWM, Inc.



Craig VanBuren  
Chair, NTEP Committee  
Issued: May 25, 2021

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**Cardinal Scale Manufacturing Company, Inc.**  
Load Cell / CB6

**Application:** The load cells may be used in Class III single cell, Class III multiple cell and Class III L multiple cell applications consistent with the model designations, number of scale divisions, and parameters specified in this certificate. 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 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 5 kg, 15kg and 750kg load cell was tested at the NMI, the Netherlands. The data were analyzed for single and 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 to determine sensitivity of the load cell design to changes in barometric pressure was conducted.

Two 50 kg and two 200 kg capacity load cells (2-four wire and 2-six wire) were tested at NIST using dead weights as the reference standard. The data were analyzed for single and multiple load cell applications. The cells were tested over a temperature range of -10 °C to 40 °C. 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 determine cells tested.

**Evaluated By:** K. Chesnutwood (NIST Force Group), S.J Koeman (NMI)

**Type Evaluation Criteria Used:** *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2019 Edition. NCWM Publication 14 Measuring Devices, 2019 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:**

