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

Certificate Number: 97-008

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

For:
Load Cell
Single Point Bending Beam
Model: BCM Series
n_{max}: 5000
Capacity: 50 kg_f to 500 kg_f (100 lb_f to 1000 lb_f)

Accuracy Class: III

Submitted by:
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Standard Features and Options

Model	Capacity		v_{min}		Minimum Dead
	kg_f	lb_f	kg_f	lb_f	
BCM - 50L	50		0.0060		0
BCM - 100lb		100		0.0120	0
BCM - 75L	75		0.0090		0
BCM - 250lb		250		0.0300	0
BCM - 100L	100		0.0120		0
BCM - 400lb		400		0.0480	0
BCM - 150L*	150		0.0180		0
BCM - 500lb		500		0.0600	0
BCM - 200L	200		0.0240		0
BCM - 700lb		700		0.0840	0
BCM - 250L	250		0.0300		0
BCM - 1000lb		1000		0.1200	0
BCM - 300L	300		0.0360		0
BCM - 500L	500		0.0600		0
*Device evaluated					

4-wire design
Excitation voltage (range): DC 10-15V
Nominal output: 2.0 mV/V
Material: Aluminum 2024
Temperature Range: -10 to 40 °C (14 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: January 22, 1997

Louis E. Straub
Chairman, NCWM, Inc.

G. Weston Diggs
Chairman, National Type Evaluation Program Committee

Issue date: May 5, 1997

This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

CAS (USA) Corporation
Single Point Bending Beam Load Cell
Model: BCM Series

Application: The load cells may be used in Class III scales for single 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, v_{min} values, and temperature range are suitable for the application. 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 badge containing the manufacturer, model designation, and serial number is on the load cell. All other required information must be on an accompanying document including the serial number of the load cell.

Test Conditions: Two 150-kg_f capacity load cells were tested at NIST using dead weights as the reference standard. The data were analyzed for multiple load cell applications. The cells were tested over a temperature range of -10 °C 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 results of this evaluation indicate that the devices comply with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1997 Edition

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

Information Reviewed By: D. M. Ripley (NIST) and J. Williams (NIST)