



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance
for Weighing and Measuring Devices

For:

Load Cell
Tension
Model: G4-SB Series
 n_{max} : 5000, Single Cell
Capacity: 250 lb to 2500 lb /125 kg to 1250 kg
Accuracy Class: III

Submitted By:

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Standard Features and Options

- The specific load cells covered by this Certificate are identified in the table below.
- Nominal Output: 3 mV/V
- Excitation Voltage: 10-15 VDC
- Minimum dead load: 0 lb / 0 kg
- Counterforce Material: Steel
- 4 Wire Design

Load Cell Parameters:

Model	Capacity (lb)	V_{min} (lb)	Capacity (kg)	V_{min} (kg)
G4-SB	250	0.025	125	0.015
G4-SB*	500	0.05	250	0.025
G4-SB	1000	0.10	500	0.050
G4-SB	1500	0.15	750	0.075
G4-SB			1000	0.100
G4-SB	2500	0.25	1250	0.125

*Load cell tested

Temperature Range: 0 °C to 40 °C (32 °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.

Jerry Buendel
Chairman, NCWM, Inc.

Ronald Hayes
Chairman, National Type Evaluation Program Committee
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Group Four Transducers, Inc.

Load Cell / G4-SB 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, the v_{\min} values, and temperature range are suitable for the application. The manufacturer may market the load cells with fewer scale 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, serial number, accuracy class, capacity, n_{\max} and v_{\min} is located on the load cell. All other required information, if not marked on the load cell, must be on an accompanying document including the serial number of the load cell.

Test Conditions: This certificate supersedes Certificate of Conformance Number 14-011 and was issued to include additional capacities to the family of load cells, show pound capacities and adjust some v_{\min} values using proper calculations. Per NCWM Publication 14 Technical Policy no additional testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance Number 14-011: A Model G4-SB (500 kg) load cell was tested by the NMI Certain B.V. at The Netherlands facility. Testing was conducted in accordance with the OIML DoMC Mutual Acceptance Arrangement, signed by the NCWM as a utilizing participant for load cell testing. Testing was conducted using deadweights as the reference standard. The load cells were tested over a temperature range of 0 °C to 40 °C with tests 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 performed to test the insensitivity of the load cell design to changes in barometric pressure. The data were analyzed for single load cell applications. OIML R60 selection criteria was used to determine cells tested.

Evaluated By: M.M.J. Meijer (NMI), J. Konijnenburg (NMI) 14-011

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2016. NCWM, Publication 14: Weighing Devices, 2015.

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) 14-011, 14-011A1

Example of Device:

