

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

For:

Force Transducer (Load Cell)
Bending Beam
Model: BK2 Series (See Table Below)
 n_{max} : Class III, Multiple Cells: 5000
Capacity: 500 kg to 2000 kg

Accuracy Class: III

Submitted by:

Flintec, Inc.
18A Kane Industrial Dr.
Hudson, MA 01749
Tel: (978) 562-4242
Fax: (978) 562-0008
Contact: Rolf P. Haggstrom

Standard Features and Options

The BK2 Series is identified by the Model Number BK2-XXXkg, where the XXX suffix represents the load cell capacity in thousands of kg.

Nominal output: 2mV/V
Nominal Force Transducer Input Impedance: 1106 ohms
Counterforce material: Stainless Steel
Cable: 4-wire design

Load Cell Parameters:

Model Number	Capacity (kg)	Multiple Cell, Class III v_{min} (kg)	Minimum Dead Load (kg)
BK2-500kg	500	0.028	0
BK2-1000kg*	1000	0.056	0
BK2-2000kg	2000	0.112	0

* Two load cells submitted for evaluation

Temperature Range: -10 °C to 40 °C (14 °C 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.



Dennis E. Ehrhart
Chairman, NCWM, Inc.



Ross J. Andersen
Chairman, National Type Evaluation Program Committee

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Flintec, Inc.
Force Transducer
Model: BK2 Series

Application: The load cells may be used in Class III scales for 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} 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 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: Two Model BK2-1000kg (1000 kg) 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 the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: NIST Handbook 44, 2004 Edition; NCWM Publication 14, 2003 Edition

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

Information Reviewed By: S. Patoray (NCWM), L. Bernetich