

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Load Cell Shear Beam

Model: SQBY Series

 n_{max} Class III L / Multiple Cell: 5 000 Capacity: 1 000 lb to 10 000 lb

Accuracy Class: III L

Submitted By:

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Standard Features and Options

• Nominal Output: 3mV/V

• 4-wire Design

• Material: Alloy Steel

• Nominal Input Impedance: 400 ± 10 ohms

Load Cell Parameters:

Model Number	Capacity	Single or Multiple Cell, Class III L	No. of Inc.	Minimum Dead Load
	(lb)	v _{min} (lb)	$\mathbf{n}_{ ext{max}}$	(lb)
SQBY	1000	0.10	5000	0
SQBY	2000	0.20	5000	0
SQBY	2500	0.24	5000	0
SQBY	3000	0.30	5000	0
SQBY	3500	0.35	5000	0
SQBY	4000	0.40	5000	0
SQBY	5000	0.50	5000	0
SQBY	7500	0.75	5000	0
SQBY	10 000	1.00	5000	0

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.

Kurt Floren

Chairman, NCWM, Inc.

Chairman, National Type Evaluation Program Committee

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Keli Sensing Technology (Ningbo) Co., Ltd.

Load Cell / SQBY Series

Application: The load cells may be used in Class III L scales for single or 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.

<u>Identification</u>: A laser etched 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.

<u>Test Conditions</u>: This certificate supersedes Certificate of Conformance Number 08-009A1 and is issued to recognize the company name change from Keli Electric Manufacturing (Ningbo) Co., Ltd. to Keli Sensing Technology (Ningbo) Co., Ltd. No additional testing was required. Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 08-009A1:</u> This Certificate supersedes Certificate of Conformance Number 08-009 and is issued to correct the type of load cell listed in the "For" box, from bending to shear. No additional testing was required.

<u>Certificate of Conformance Number 08-009</u>: Two Model SQBY (4000-lb capacity) load cells 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. 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.

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

<u>Type Evaluation Criteria Used:</u> NIST, <u>Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2007. NCWM, Publication 14: Weighing Devices, 2007.</u>

<u>Conclusion</u>: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: S. Patoray, L. Bernetich (NCMW) 08-009, 08-009A1; J. Truex (NCWM) 08-009A2

Example of Device:



Model SQBY