

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Load Cell

Double-ended Shear Beam Model: KL-40 Series

 n_{max} Class III L / Multiple Cell: 10 000 Capacity: 20 000 lb to 200 000 lb

Accuracy Class: III L

Submitted By:

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Standard Features and Options

• Nominal Output: 3 mV/V

• 4-wire Design

• Material: Alloy Steel

Nominal Input Impedance: 750 ohmsLoad Cell Parameters: *capacity evaluated

Model Number	Capacity (lb)	Multiple Cell Class III L v _{min} (lb)	Minimum Dead Load (lb)
KL-40	20 000	1.00	1 000
KL-40	25 000	1.25	1 250
KL-40	40 000	2.00	2 000
KL-40	50 000	2.50	2 500
KL-40SE	50 000	2.50	2 500
KL-40	60 000	3.00	3 000
KL-40SE	60 000	3.00	3 000
KL-40	75 000*	3.75	3 750
KL-40SE	75 000	3.75	3 750
KL-40	100 000	5.00	5 000
KL-40	125 000	6.25	6 250
KL-40	150 000	7.50	7 500
KL-40	200 000	10.00	10 000

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 / KL-40 Series

Application: The load cells may be used in Class IIIL 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.

<u>Identification</u>: A pressure sensitive identification badge containing the manufacturer, model designation, serial number, capacity, n_{max} , accuracy class and certificate number is located on the load cell. All other required information 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 09-037A1 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 09-037A1:</u> This certificate supersedes Certificate of Conformance Number 09-037 and is issued to correct the minimum dead load values shown in the "Standard Features and Options" section on page one of the certificate. The incorrect statement has been removed. The values shown in the table are correct.

Certificate of Conformance Number 09-037: Two 75 000 lb 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. 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: T. Bartel (NIST Force Group) 09-037

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2008. NCWM, Publication 14: Weighing Devices, 2008.

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) 09-037, 09-037A1, 90-037A2

Example of Device:

