NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Force Transducer (Load Cell)
Bending Beam
Model: H8C Series (see table page 2)
n_{max}: Class III, Single Cell: 3000
Class III Multiple Cell: 5000
Class III L Multiple Cell: 10 000
Capacity: 1000 lb to 10 000 lb
Accuracy Class: III/IIIL (see table page 2)

***Submitted By: Contact Info. Updated October 2020**
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Standard Features and Options

The H8C Series is identified by the Model Number H8C-XX, where the XX suffix represents the load cell capacity in thousands of pounds.

Nominal output: 3mV/V
4-wire design
Material: Alloy Steel
Nominal Input Impedance: 350 ohms

Load Cell Parameters: See Page 2

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.

Jerry Buendel
Chairman, NCWM, Inc.

Ronald Hayes
Committee Chair, National Type Evaluation Program Committee
Issued: August 29, 2007

ZEMIC (USA) Inc.
Force Transducer (Load Cell) / H8C Series

Application: The load cells may be used in Class III or 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.

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.

Load Cell Parameters:

Model Number	Capacity (lb)	Single Cell, Class III v_{min} (lb)	No. of Inc. n_{max}	Multiple Cell, Class III v_{min} (lb)	No. of Inc. n_{max}	Multiple Cell, Class III L v_{min} (lb)	No. of Inc. n_{max}	Minimum Dead Load (lb)
H8C-1K	1000	0.11	3000	0.07	5000	0.07	10 000	75
H8C-1.5K	1500	0.17	3000	0.11	5000	0.11	10 000	75
H8C-2K	2000	0.22	3000	0.14	5000	0.14	10 000	80
H8C-2.5K	2500	0.28	3000	0.18	5000	0.18	10 000	80
H8C-3K	3000	0.32	3000	0.21	5000	0.21	10 000	100
H8C-4K*	4000	0.43	3000	0.28	5000	0.28	10 000	125
H8C-5KSE	5000	0.54	3000	0.35	5000	0.35	10 000	125
H8C-5K	5000	0.54	3000	0.35	5000	0.35	10 000	125
H8C-6K	6000	0.64	3000	0.42	5000	0.42	10 000	130
H8C-7.5K	7500	0.80	3000	0.53	5000	0.53	10 000	130
H8C-10K	10 000	1.07	3000	0.70	5000	0.70	10 000	150
Model Number	**Capacity (kg)**	**Single Cell, Class III v_{min} (kg)**	**No. of Inc. n_{max}**	**Multiple Cell, Class III v_{min} (kg)**	**No. of Inc. n_{max}**	**Multiple Cell, Class III L v_{min} (kg)**	**No. of Inc. n_{max}**	**Minimum Dead Load (kg)**
H8C-0.5t	500	0.06	3000	0.04	5000	0.04	10 000	35
H8C-1t	1000	0.11	3000	0.07	5000	0.07	10 000	40
H8C-1.5t	1500	0.17	3000	0.11	5000	0.11	10 000	50
H8C-2t	2000	0.22	3000	0.14	5000	0.14	10 000	60
H8C-2.5t	2500	0.28	3000	0.18	5000	0.18	10 000	60
H8C-3t	3000	0.33	3000	0.21	5000	0.21	10 000	65
H8C-5t	5000	0.55	3000	0.35	5000	0.35	10 000	75
* Two load cells submitted for evaluation								

Test Conditions: This certificate supersedes Certificate of Conformance number 07-012 and is issued to include several additional capacities in the table on page 2. All of the capacities added were within the acceptable range of capacities based on device evaluated. Additional information was provided by CC holder. No additional testing was deemed necessary.

Certificate of Conformance Number 07-012: This certificate supersedes Certificate of Conformance number 06-069 and is issued to indicate transfer of the NTEP Certificate of Conformance from Canada General Measure Co., Ltd. to Zemic (USA) Inc. The NTEP Certificate of Conformance 06-069, though inactive, remains in effect to cover those devices previously sold and installed under the

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Force Transducer (Load Cell) / H8C Series

original name. Previous test information and documentation provided by the company was reviewed. The test conditions for the original type evaluation are listed below for reference.

Certificate of Conformance Number 06-069: Two Model H8C-4K (4000-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. 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 06-069

Type Evaluation Criteria Used: NIST Handbook 44, 2005 Edition; NCWM Publication 14, 2005 Edition

Conclusion: The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Information Reviewed By: S. Patoray (NCMW) 06-069, 07-012, 07-012A1

Example of Model H8C:

H8C