NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Load Cell
Compression
Model: BM24R Series
n_{max}: 5 000, Class III, Single/Multiple Cell
Capacity: 60 kg to 60 000 kg
Accuracy Class: III

Submitted By:
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Standard Features and Options

The specific load cell capacities, v_{min} , n_{max} and minimum dead load values covered by this Certificate are listed in page two. Load cells tested are indicated by an *.

- Nominal output: 1.0 to 2.0 mV/V
- Stainless steel material
- 4 wire design

Temperature Range: -10 ºC to 40 ºC (14 ºF to 104 ºF)

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.

Tim Tyson
Chairman, National Type Evaluation Program Committee

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Zemic USA, Inc.

Load Cell / BM24R Series

Model	Capacity	v_{min} Class III Single cell and Multiple cell	Minimum Dead Load
BM24R	60 kg*	0.0038 kg	0.0 kg
BM24R	130 kg	0.0081 kg	0.0 kg
BM24R	250 kg	0.0143 kg	0.0 kg
BM24R	280 kg	0.0160 kg	0.0 kg
BM24R	300 kg*	0.0171 kg	0.0 kg
BM24R	500 kg	0.0286 kg	0.0 kg
BM24R	1000 kg*	0.0571 kg	0.0 kg
BM24R	2000 kg	0.1143 kg	0.0 kg
BM24R	3500 kg	0.2000 kg	0.0 kg
BM24R	5000 kg	0.2875 kg	0.0 kg
BM24R	10 000 kg	0.5714 kg	0.0 kg
BM24R	13 000 kg*	0.5200 kg	0.0 kg
BM24R	28 000 kg	1.1200 kg	0.0 kg
BM24R	60 000 kg	2.4000 kg	0.0 kg

***load cells tested: 60kg (2 load cells), 300kg(1cell), 2t(1 cell), 13t(1cell)**

Application: The load cells may be used in Class III scales for single and 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} value, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions (n_{max}) and with greater 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 label located on the cell, states manufacturer name, model number, serial number, rated capacity, V_{min}, class, and CC number. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

Test Conditions: This Certificate supersedes Certificate of Conformance number 11-103 and was issued to correct the v_{min} values stated on the certificate. Previous test conditions are listed below for reference.

Certificate of Conformance Number 11-103: Five load cells were 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 -10 ^{o}C to 40 ^{o}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 on three cells. The data were analyzed for single and multiple load cell applications. OIML R60 selection criteria were used to determine cells tested.

Evaluated By: C. Bontenbal (NMi), R. Scholten (NMi) 11-103

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2011. NCWM, Publication 14: Weighing Devices, 2011.

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) 11-103, 11-103A1

Zemic USA, Inc.

Load Cell / BM24R Series

Examples of Device:

Model BM24R 60kg – 280kg

Model BM24R 250kg – 13t

Model BM24R 28t – 60t