

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Load Cell Tension and Compression Model: 110xx Series  $n_{max}$ : 3000, Class III, Single Cell (500 kg to 3000 kg) 5000, Class III, Multiple Cell (500 kg to 3000 kg) 6000, Class III, Single Cell and Multiple Cell (5000 kg to 50 000 kg) Capacity: 500 kg to 50 000 kg Accuracy Class: III \*Submitted By: Contact Info. Updated October 2021 Anyload LLC 12-16 Littell Road, Unit 8B/8C East Hanover, NJ 07936 Tel: 855-269-5623 Fax: 866-612-9088 Contact: Gary Gui Email: <u>gary.gui@anyload.com</u> Web site: <u>www.anyload.com</u>

#### **Standard Features and Options**

- Model 110xx, where the xx in the model designation may be BH, BS, FH, FS, NH, NS, KH, KS, WH, WS, YH, YS, QH, QS, PH, PS, HH, ZH, ZS, EH, ES, MH, MS, JH, JS, LH, LS, RH, RS, SH, SS, TH, TS, GH, GS, UH, US
- The specific load cell capacities, v<sub>min</sub> values, and minimum dead loads covered by this Certificate are listed in the table on Page 2
  Nominal output: 2.0 and 3.0 mV/V
- Alloy Steel and Stainless-Steel material
- 4 wire design
- Minimum Dead Load: 0 kg

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.

Ivan Hankins Chairman, NCWM, Inc.

Hal Prince Chairman, National Type Evaluation Program Committee Issued: March 27, 2014



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### Load Cell / 110xx Series

**Application:** The load cells may be used in Class III scales for single cell 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.

### Specific Capacities nmax and vmin\_Values:

| Models            | Capacity          | v <sub>min</sub> Class III                                  | v <sub>min</sub> Class III |
|-------------------|-------------------|---|----------------------------|
|                   | *load cell tested | Single cell, n= 3000  | Single cell, n= 6000       |
|                   |                   | Multiple cell, n= 5000                                      | Multiple cell, n= 6000     |
| 110xx             | 500 kg            | 0.033 kg  |                            |
|                   | 1000 kg           | 0.067 kg  |                            |
|                   | 2000 kg           | 0.133 kg  |                            |
|                   | 3000 kg           | 0.2 kg  |                            |
|                   | 5000 kg           |   | 0.35 kg                    |
|                   | 7500 kg           |   | 0.53 kg                    |
|                   | 10 000 kg*        |   | 0.7 kg                     |
|                   | 15000 kg*         |   | 1.05 kg                    |
|                   | 20 000 kg         |   | 1.4 kg                     |
|                   | 30 000 kg         |   | 2.1 kg                     |
| *Load cell tested | 50 000 kg         |   | 3.5 kg                     |
|                   |                   | n may be BH, BS, FH, FS, NH<br>H, MS, JH, JS, LH, LS, RH, R |                            |

**Identification:** A pressure sensitive identification label located on the cell, states manufacturer name, model, serial number, rated capacity, class and  $v_{min}$ . Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

<u>Test Conditions</u>: This certificate supersedes Certificate of Conformance Number 12-081 and was issued to increase the size of the series and recognize the parameters associated with the additional testing. One Model 110BH-1t, 1000 kg capacity cell was 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 cell was tested over a temperature range of -10 °C to 40 °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 to determine sensitivity of the load cell design to changes in barometric pressure was conducted. The data were analyzed for single and multiple load cell applications. OIML R60 selection criteria were used to determine cells tested. Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 12-082</u>: Two Model 110BH, 10 000 kg and 15 000 kg capacity 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 °C to 40 °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



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### Load Cell / 110xx Series

pressure test to determine sensitivity of the load cell design to changes in barometric pressure was conducted. The data were analyzed for single load cell applications. OIML R60 selection criteria were used to determine cells tested.

Evaluated By: E. van der Grinten, R. Scholten (NMi) 12-082; M.M.J. Meijer, J. Konijnenburg (NMi) 12-082A1

**Type Evaluation Criteria Used:** NIST, <u>Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing</u> and <u>Measuring Devices</u>, 2014. NCWM, Publication 14: Weighing Devices, 2013.

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

Information Reviewed By: J. Truex (NCWM) 12-082, 12-082A1

### **Examples of Device:**

