

#### NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance for Weighing and Measuring Devices

For: Load Cell Compression

Model: 108xx Series

n<sub>max</sub>: 5000, Class III, Single Cell (capacities up to 500 kg) 4000, Class III, Single Cell (capacities above 500 kg)

Capacity: 1kg to 2500 kg Accuracy Class: III

# **Submitted By:**

Anyload LLC

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## **Standard Features and Options**

• Model 108xxxx Series, where the first xx in the model designation possible suffixes: BA, CA, EA, EASH, HAUN, JA, MA, MAUN, TA, TAUN, UA or UAUN and the last xx in the model designation may be SE or LE

• The specific load cell capacities and v<sub>min</sub> values covered by this Certificate are listed in the table on Page 2.

• Nominal output: 2.0 mV/V

• Aluminum

• 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 Chair, NTEP Committee Issued: August 31, 2021

# 1135 M Street, Suite 110 / Lincoln, Nebraska 68508





# **Anyload LLC**

#### Load Cell / 108xx Series

Application: The load cells may be used in Class III scales for single 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 and v<sub>min</sub> Values:

Specific Capacities and V <sub>min</sub> Values:			
Models	Capacity	v <sub>min</sub> Class III Single Cell, n = 5 000	v <sub>min</sub> Class III Single Cell, n = 4 000
108xx Series	1 kg	0.067 g	
• Includes suffixes: BA, CA,	2 kg	0.133 g	
EA, EASH, HAUN, JA, MA,	3 kg	0.2 g	
MAUN, TA, TAUN, UA or	5 kg*	0.33 g	
UAUN	7 kg	0.47 g	
	10 kg	0.67 g	
	20 kg	1.33 g	
	30 kg	2 g	
* load cell tested	40 kg	2.67 g	
	50 kg*	3.33 g	
	60 kg	4.9 g	
	75 kg	6 g	
	100 kg	8 g	
	150 kg	12 g	
	200 kg	16 g	
	250 kg	20 g	
	300 kg	24 g	
	500 kg*	40 g	140
	600 kg		0.08 kg
	700 kg		0.09 kg
	1000 kg		0.13 kg
	1500 kg		0.20 kg
	2000 kg		0.27 kg
	2500 kg		0.33 kg

<u>Identification</u>: A pressure sensitive identification label located on the cell, states manufacturer name, model, serial number, rated capacity, class,  $n_{max}$  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 12-036A1 and is issued to update company address and add the SE and LE suffix to the model 108xx Series. There are no metrological differences between these models and the ones previously listed. No additional testing was necessary. Previous test conditions are listed below for reference.

Certificate of Conformance Number 12-036A1: This certificate supersedes Certificate of Conformance Number 12-036 and was issues to increase the capacity of the series, increase the n<sub>max</sub> for capacities up to 500 kg, and recognize additional suffixes. A Model 108BA, 5 kg capacity load cell and a Model 108TA, 50 kg capacity load cell 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 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. Previous test conditions are listed below for reference.





# **Anyload LLC**

Load Cell / 108xx Series

Certificate of Conformance Number 12-036: A Model 108JA, 500 kg capacity load 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 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 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: A.C. Pauwels, R. Scholten (NMi) 12-036; E. van der Grinten, M.M.J. Meijer (NMi) 12-036A1; M. Manheim (NCWM) 12-036A2

<u>Type Evaluation Criteria Used:</u> NIST, <u>Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices</u>, 2016. NCWM, Publication 14: Weighing Devices, 2016.

**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) 12-036, 12-036A1; D. Flocken (NCWM) 12-036A2

#### **Examples of Device:**

