



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell
Bending Beam
Model: PA10 & PA12 Series
 n_{max} : 5 000, Single/Multiple Cell, Class III
Capacity: 50 kg to 635 kg

Submitted By:

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Standard Features and Options

The specific load cells and parameters covered by this Certificate are identified in the table on Page 2.

- Nominal Output: 2 mV/V
- Excitation Voltage: 5-15 VAC/DC
- Minimum dead load: 0 kg
- Material: Aluminum
- 4-Wire Design

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.

Craig VanBuren
Chairman, NCWM, Inc.

Stephen Benjamin
Committee Chair, NTEP Committee
Issued: January 10, 2020

Specific Load Cells and Parameters:

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

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Beijing True-Tec Co., Ltd.
Load cell / PA10 & PA12 Series

Model	Max Capacity (E_{max})	Minimum Load Cell Interval (V_{min})	
		Single Cell	Multiple Cell
PA10 / PA12	50 kg	0.0025	0.0025
PA10 / PA12	60 kg	0.003	0.003
PA10 / PA12	75 kg	0.00375	0.00375
PA10 / PA12	100 kg	0.005	0.005
PA10 / PA12	150 kg	0.0075	0.0075
PA10 / PA12	200 kg	0.01	0.01
PA10 / PA12	250 kg	0.015	0.015
PA10 / PA12	300 kg	0.018	0.018
PA10 / PA12	500 kg	0.03	0.03
PA10 / PA12	635 kg	0.04	0.04

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} values, and temperature range are suitable for the application. The manufacturer may market the load cells with fewer scale 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 manufacturer name, model, capacity, NTEP certificate number 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.

Test Conditions: Two model PA10 (50 kg) and one model PA12 (250 kg) load cells were tested by the NMi Certain B.V. at The Netherlands facility. Testing was conducted in accordance with the OIML-CS 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 was not conducted. The data were analyzed for single load cell applications. OIML R60 selection criteria was used to determine cells tested.

Evaluated By: E. van der Grinten (NMi), S.J. Koeman (NMi)

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2019 Edition. *NCWM Publication 14 Measuring Devices*, 2019 Edition.

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

Information Reviewed By: D. Flocken (NCWM)

Example(s) of Device:



Beijing True-Tec Co., Ltd.
Load cell / PA10 & PA12 Series



PA10



PA12