



## NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**

Non-Computing Scale  
 Digital Electronic  
 Model: APM Series  
 $n_{max}$ : 3 000  
 Capacity: (see below)  
 Platform: 13.125 in x 11 in  
 Accuracy Class: III

**Submitted By:**

Universal Weight Electronic Co., Ltd.  
 4<sup>th</sup> Floor, No. 53  
 Baoxing Road / Xindian District  
 New Taipei City 231  
 Taiwan (R.O.C.)  
 Tel: +886-2-29180121 #31  
 Fax: +886-2-29183652  
 Contact: Sharon Guo  
 Email: [int@uwe.com.tw](mailto:int@uwe.com.tw)  
 Web Site: [www.uwe.com.tw](http://www.uwe.com.tw)

**Standard Features and Options**

- Semi-Automatic (push-button) Zero
- Automatic Zero Setting Mechanism (AZSM)
- Semi-Automatic (push-button) Tare
- Initial Zero Setting Mechanism (IZSM) (on/off switch)
- External lb/kg Selection
- Weight Accumulation
- Liquid Crystal Display
- Remote Display
- AC/DC Adapter
- Battery Power Supply (rechargeable)
- Battery Saving Feature Auto Shut-off

This certificate is applicable to the following models and capacities: APM-15, APM-30, APM-60 and APM-150. The number following the APM- designates the device capacity in kilograms.

Model Number	Capacity	Load Cell	NTEP CC Number
APM-15	30 x 0.01 lb (15 x 0.005 kg)	Vishay Transducers model 1022 20kg	96-122A1
APM-30	60 x 0.02 lb (30 x 0.01 kg)	Vishay Transducers model 1022 35 kg	96-122A1
APM-60	150 x 0.05 lb (60 x 0.02 kg)	Vishay Transducers model 1022 100kg	96-122A1
APM-150	300 x 0.1 lb (150 x 0.05 kg)	Vishay Transducers model 1022 200kg	Non NTEP

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. \*Editorial changes, not affecting the type or metrological content, corrected this certificate.

Jerry Buendel  
 Chairman, NCWM, Inc.

Ronald Hayes  
 Chairman, National Type Evaluation Program Committee  
 Issued: November 6, 2015

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

The National Conference on Weights and Measures (NCWM) does not approve, recommend or endorse any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.



## Universal Weight Electronic Co., Ltd.

Non-Computing Scale / APM Series

**Application:** For use as a general-purpose scale.

**Identification:** A self-destructive identification label is affixed to the back of the indicator case, and an additional self-destructive identification label is on right side of the weighing element case. The serial number is repeated on both labels.

**Sealing:** Two wire security seals are needed to prevent access to the internal calibration jumper (pin JP1) located on the main circuit board. Access is prevented by inserting plastic caps on top of two recessed screws. The screws hold the indicator case together. Wire security seals may be threaded through the plastic caps and through molded tabs in the indicator case.

When pin JP1 is jumped on the main circuit board, external access to the calibration mode is enabled through the key pad. To verify whether access to external calibration is enabled or disabled:

- Hold the “MODE” key while turning the device on.
- “CAL\_1” is displayed if the jumper is in the unsealed position.
- Press the “ZERO” key to exit.
- If the jumper is in the sealed position “S1\_on” is displayed and the device returns to the weight display.

**Test Conditions:** This certificate supersedes Certificate of Conformance Number 03-055 and was issued to recognize a change to the company name from Universal Weight Enterprise Co., Ltd to Universal Weight Electronic Co., Ltd. Contact information has also been updated. No additional testing was deemed necessary. Previous test conditions are listed below for reference.

**Certificate of Conformance Number 03-055:** The emphasis of this evaluation was on device design, marking, operation, and compliance with influence factors. The model APM-15, 30 lb capacity and APM-150, 300 lb capacity were tested for accuracy over a temperature range of: -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half scale capacity was applied to the devices 100 000 times. Increasing/decreasing load and shift tests were conducted periodically during this time. The devices were tested over a voltage range of 100 VAC to 132 VAC and 9.0 to 3.3 VDC. The devices were tested with their maximum IZSM load applied.

**Evaluated By:** A.P. Buie, J.T. Price (MD) 03-055

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2003. NCWM, Publication 14: Weighing Devices, 2003.

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

**Information Reviewed By:** S. Patoray (NCWM), L. Bernetich (NCWM) 03-055; J. Truex (NCWM) 03-055A1

**Example of Device:**





**National Conference on Weights and Measures**

"That Equity May Prevail"

## **Use of Non-NTEP Cells in Small Capacity Scales**

The Universal Weight Enterprise Model APM-150 scale is covered and traceable to NTEP CC 03-055.

The C.o.C. states that the Model 1022 / 200kg load cell used with the scale is non NTEP. NTEP policy allows scales less than 2000 lb capacity to utilize non NTEP load cells, when the scale under type evaluation will be tested for T.N.8 influence factors in an NTEP laboratory. Notice the test conditions on the C.o.C. state the Model APM-150 was tested in the lab and submitted to influence factor testing. The significance of the reference to a non NTEP cell is that the manufacturer is locked into that load cell for that device. A change of load cell means the device with the new cell is no longer traceable to the NTEP C.o.C. and must undergo performance testing by NTEP in an NTEP lab.

An excerpt of:

**Jim Truex**  
NTEP Administrator

**National Conference on Weights and Measures**  
1135 M Street, Suite 110 / Lincoln, Nebraska 68508  
**P. 402.434.4880 D. 740.919.4350 F. 402.434.4878**  
[www.ncwm.net](http://www.ncwm.net)