

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For:

Computing Scale

and Non-Computing Scale, Digital Electronic

Model: TVD-xx / TVP-xx Series

 n_{max} : 6000

 e_{min} : 0.001 lb / 0.0005kg

Capacity: 6 lb (3 kg) to 60 lb (30kg) Platform: 300 mm x 230 mm

Accuracy Class: III

Submitted By:

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Standard Features and Options

TVP JR, TVP JR-P, TVP PLUS, TVP PLUS-P are computing scales, TVD, TVD JR are non- computing scales

Model	Maximum Capacity	d=e _{min}
TVP JR / TVP PLUS-12	12 lb / 6 kg	0.002 lb / 0.001 kg
TVP JR / TVP PLUS-30	30 lb / 12 kg	0.005 lb / 0.002 kg
TVP JR / TVP PLUS-60	60 lb / 30 kg	0.01 lb / 0.005 kg
TVP JR-P / TVP PLUS-P-12	12 lb / 6 kg	0.002 lb / 0.001 kg
TVP JR-P / TVP PLUS-P-30	30 lb / 12 kg	0.005 lb / 0.002 kg
TVP JR-P / TVP PLUS-P-60	60 lb / 30 kg	0.01 lb / 0.005 kg
TVD / TVD JR-6	6 lb / 3 kg / 96 oz	0.001 lb / 0.0005 kg / 0.02 oz
TVD / TVD JR-12	12 lb / 6 kg / 192 oz	0.002 lb / 0.001 kg / 0.05 oz
TVD / TVD JR-30	30 lb / 12 kg / 480 oz	0.005 lb / 0.002 kg / 0.1 oz
TVD / TVD JR-60	60 lb / 30 kg / 960 oz	0.01 lb / 0.005 kg / 0.2 oz

- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (Push Button) Zero
- Semi-Automatic (Push Button) Tare
- AC to DC Power adapter / Battery
- Customer display (TVP JR, TVP PLUS, TVP JR-P, TVP PLUS-P)
- Liquid Crystal Display
- PLU function
- Optional RS-232
- Optional rear display
- External Unit Switching: Non-computing scales (Units available kg, g, lb and oz) Computing Scales (kg & lb available)

Load cell: T-scale Model: BX6 (Non-NTEP certified)

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.

Chairman, NCWM, Inc.

Stephen Benjamin Chair, NTEP Committee Issued: May 18, 2020

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VisionTechShop.com Computing Scale / TVD-xx & TVP-xx Series

Application: A retail computing scale and non-computing scale for general purpose retail weighing applications.

<u>Identification</u>: A tamper evident adhesive label is attached to the side of the scale housing with markings, the capacity x division statement is located near the weight display.

<u>Sealing</u>: The scale is sealed with a self-destructing paper seal over a plastic disc that covers the calibration switch under the scale. To prevents the scale housing from being separated. There are 2 solutions

- Solution A: sealing of the access to the inside of the enclosure is accomplished by a placing a rod through the enclosure and seal it with wire and lead/plastic seal
- Solution B: a second self-destructing paper seal over a plastic disc.

Test Conditions: The emphasis of the evaluation was on the device design, operation performance and marking requirements. Four models of the TVD/TVP Series were submitted for evaluation an TVP JR 60 lb x 0.01 lb, TVP PLUS 6 lb x 0.001 lb, TVD 60 lb x 0.01 lb and an TVD JR 6 lb x 0.001 lb. Multiple increasing/decreasing load, shift, and discrimination tests were performed. The scale was tested at 85 VAC and 264 VAC and 5.6 VDC to 6.6 VDC. Functions such as lb / kg unit switching, price computing, manual PLU entry and manual tare operations were evaluated. The scales were tested at a temperature range of -10°C to 40°C (14°F to 104°F). A load of approximately one-half capacity was applied 100 000 times. Increasing and decreasing load tests were performed periodically during and at the conclusion of permanence.

Evaluated By: M. Kelley (OH); J. Gibson (OH)

<u>Type Evaluation Criteria Used</u>: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2020 Edition. *NCWM Publication 14 Measuring Devices*, 2020 Edition.

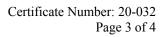
Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: D. Flocken (NCWM)

Example(s) of Device:



TVD JR TVP JR







VisionTechShop.com Computing Scale / TVD-xx & TVP-xx Series



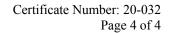




TVP JR-P



TVP PLUS-P







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