



NATIONAL TYPE EVALUATION PROGRAM

*Certificate of Conformance*  
*for Weighing and Measuring Devices*

**For:**

Non-Computing Scale  
Digital Electronic  
Model: 420 Series  
 $n_{max}$ : see table below  
 $e_{min}$ : see table below  
Capacity: see table below  
Platform: see table below  
Accuracy Class: II

**Submitted By:**

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**Standard Features and Options**

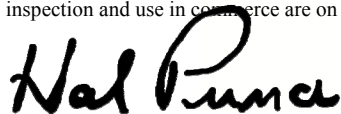
- Semi-Automatic Zero Setting Mechanism (Push Button)
- Initial Zero Setting Mechanism (IZSM)
- Automatic Zero Tracking (AZT)
- Semi-Automatic Tare (Push Button)
- Alphanumeric Display
- AC Power
- DC Power
- Sleep Mode
- Auto Shut Off
- Single Range
- RS-232/USB

Model	Capacity	$e_{min}$	$d$	$n_{max}$	Platform	Class
420-300	300 g	0.05 g	0.005 g	6000	118 mm diameter	II
420-600	600 g	0.1 g	0.01 g	6000	145 mm x 115 mm	II
420-1200	1200 g	0.2 g	0.02 g	6000	145 mm x 115 mm	II
420-1500	1500 g	0.2 g	0.02 g	7500	145 mm x 115 mm	II
420-3000	3000 g	0.5 g	0.05 g	6000	188 mm x 148 mm	II

**Load Cell Used:** HBM Model SPL and HBM model PW6C (non-NTEP)

Temperature Range: 5 °C to 40 °C (37 °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.



Hal Prince  
Chairman, NCWM, Inc.



Craig VanBuren  
Chair, NTEP Committee  
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**Cardinal Scale Manufacturing Company, Inc.**  
Non-Computing Scale / 420 Series

**Application:** For use in general purpose weighing applications.

**Identification:** A self-destructive sticker with the identification information is located on the side of the unit.

**Sealing:** A paper security seal is placed over a hole on the underside of the unit which covers the calibration switch.

Note: To verify that the scale is not in calibration mode, hold the calibration button (CAL) for 3 seconds.

**Test Conditions:** This Certificate is issued based on the following tests and information provided by the manufacturer. The emphasis of this evaluation was on the design, marking requirements, operation and compliance with influence factor requirements. Three scale capacities were provided for this evaluation: a 300g, a 1500g and a 3000g. These devices were tested over a temperature range of 5 °C to 40 °C (37 °F to 104 °F). They also had a load of approximately one-half capacity applied over 100,000 times with several increasing / decreasing load tests performed during this time. Several shift and load discrimination tests were conducted during the evaluation. The units under evaluation were tested with supply voltages from 102 to 132 VAC, 4.2 to 6.6 VDC and were also subjected to RFI testing.

**Evaluated By:** E. Morabito (NY)

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



Unit shown without optional top enclosure



Calibration access sealing via self-destructive sticker