

## NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance for Weighing and Measuring Devices

For:

Non-Computing Scale Digital electronic Model: PPC Series

Capacity: 4 kg/8 lb to 10 kg/20/lb

 $n_{\text{max}}{:}\ 4000\ \text{and}\ 5000$ Platform Size: 7.5 in x 9.5 in Accuracy Class: III

**Submitted By:** 

Fabricantes de Equipos para Refrigeración S. A. de C.V.

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## **Standard Features and Options**

Model	Capacity	emin	n <sub>max</sub>
PPC 4/8	4 kg / 8 lb	0.001 kg / 0.002 lb	4000
PPC 5/10	5 kg / 10 lb	0.001 kg / 0.002 lb	5000
PPC 8/16	8 kg / 16 lb	0.002 kg / 0.005 lb	4000
PPC 10/20	10 kg / 20 lb	0.002 kg / 0.005 lb	5000

- Automatic Zero Tracking (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic Tare (Push Button and Pedal)
- AC Power Adaptor
- DC Power (9V)
- Liquid Crystal Display
- **RS 232 Communication Port**

Load Cells Used: Medidata M022-5kg and M022 10 kg (non-NTEP)

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.

Committee Chair, NTEP Committee Issued: September 11, 2019

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## Fabricantes de Equipos para Refrigeracion S. A. de C.V.

Non-Computing Scale / PPC Series

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

<u>Identification</u>: The required markings are on an adhesive tamper evident identification label which is located under the weighing platter and is visible when the platter is removed.

<u>Sealing</u>: Sealing is provided by a wire security seal threaded through holes in two plastic screws. These screws secure a cover plate on the back of the indicator, which prevents access to a calibration button inside. The scale also has a Category 1 audit trail with calibration and configuration event counters.

The calibration counter is accessed by turning on the scale and during the initial countdown, the display will be "-----", pressing buttons: TARE, ZERO, TARE and BACKLIGHT. The display will be "CODE", press TARE, ZERO, ZERO, ZERO. The display will be "1000", press BACKLIGHT. The display will be "CA. X", where X is the number of calibration events.

The configuration counter is accessed by turning on the scale and during the initial countdown, the display will be "- - - - - -", pressing buttons: TARE, ZERO, TARE and BACKLIGHT. The display will be "CODE", press TARE, ZERO, ZERO, TARE. The display will be "1001", press BACKLIGHT. The display will be "CF. X", where X is the number of configuration events.

<u>Test Conditions</u>: A model PPC 4/8 and a model 10/20 were submitted for this evaluation. The emphasis of the evaluation was on device design, operation, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were performed over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale over 100 000 times with accuracy tests performed approximately every 25 000 times. The device was tested with voltages from 3.4 VDC to 9.9 VDC and from 100 VAC to 130 VAC.

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

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

<u>Conclusion</u>: 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:**







Method of Sealing