



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Models: X320, R420 and R423
 n_{max} : 10 000
Accuracy Class: III/III L

Submitted By:

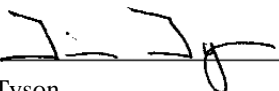
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Standard Features and Options

- Semi-automatic (push-button) Zero Setting Mechanism (SAZSM)
- Automatic Zero Tracking (AZT)
- Gross/Net Display (Models: X320)
- Gross and Net Accumulation
- Liquid Crystal (LCD) Display
- AC or DC Power
- Semi-automatic (push-button) Tare
- One Bi-directional Communication Port
- Keyboard Tare (Models: R420 and R423)
- ABS Plastic Enclosure (desktop or panel mount) (Models: R420)
- Composite Plastic Enclosure (desktop) (Model: X320)
- Stainless Steel (Models: R423)
- Category II Audit Trail Capability (see page two)
- Silicon Rubber Keypad (Models: R420)
- Membrane Keypad (Models: R423)
- Capacitive Keypad (Model: X320)
- External Unit Selection (kg, lb, g, t)
- Gross/Tare/Net Display (Models: R420 and R423)
- Battery Saving Feature (auto shut off)
- Multiple Range Capacity
- Multi-interval Capacity

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.


Tim Tyson
Chairman, NCWM, Inc.


Randy Jennings
Chairman, National Type Evaluation Program Committee
Issued: June 3, 2011

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Indicating Element / X320, R420 and R423

Application: General-purpose indicator for use with certified and compatible Class III or III L weighing elements.

Identification: An adhesive identification badge is located on the front of the device (Models: R420 and R423). The Model X320 identification badge is inside the enclosure and is visible through a clear plastic window.

Sealing: This device is equipped with non-resettable counters that increment every time the unit is calibrated or configured. To view the counters:

1. Press and hold the power key for 3 seconds to turn off the indicator.
2. Press the power key to turn the indicator back on.
3. The event counters will be displayed during the power up sequence for approximately two seconds.
 - a. The calibration counter will be identified by C.xxxxx (example: C.00005).
 - b. The setup configuration counter will be identified by F.xxxxx (example: F.00005).

Calibration mode by default is accessed via front panel keys protected with a 6-digit PIN code. Alternatively calibration mode can be accessed via a button marked "setup" located on the rear of the indicator which can be protected using traditional physical seals in addition to the PIN code. Enable the rear "setup" button as follows:

- The Model: X320 setup button is located in the lower middle. The r.entry parameter must be set to "on."
 1. Press [POWER] + [F1] to access the setup mode ([POWER] + [GROSS/NET] on the X320).
 2. Press [ZERO] to the OPTION menu.
 3. Press [TARE] to the r.entry parameter.
 4. Press[GROSS/NET] to view the parameter.
 5. Press[PRINT] to turn on if set to off.
 6. Press[F] to accept change.
 7. Press[POWER] + [F1] to save the change and exit the setup mode.
 8. Press the setup button to access the setup mode and make changes or calibrate.
 9. Press[POWER] + [F1] ([POWER] + [GROSS/NET] on the X320) to save the change and exit the setup mode. The setup mode cannot be accessed again without pressing the rear "setup" button.
 10. Thread the wire security seal through the drill head screws.
- The Models: R420 and R423 setup button is located above the load cell connector.
 1. Press the setup button to access the setup mode and make changes or calibrate.
 2. Press [ZERO] to SCALE.
 3. Press [TARE] to OPTION.
 4. Press [GROSS/NET] to r.entry.
 5. Press the UP ARROW to "on."
 6. Press [OK].
 7. Press [POWER] + [F3] to save the change and exit the setup mode. The setup mode cannot be accessed again without pressing the rear "setup" button.
 8. For panel mount applications place the physical seal plastic cover over the load cell connector and install the drill head screws.
 9. Thread the wire security seal through the drill head screws

Test Conditions: This Certificate is issued based upon information provided by the manufacturer and the following tests. The emphasis of the evaluation was on the device design, operation, marking requirements and compliance with influence factor requirements. The indicator was interfaced with a load cell simulator and then tested for accuracy over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). The indicator was interfaced with a GSE Model 4700 (Certificate of Conformance 05-058) 100 lb x 0.02 lb weighing element and a printer. The device was tested for discrimination, power interruption, zero tests, and print format. Additionally, the device was tested with a supply voltage of 100VAC to 130VAC and 10.8VDC to 26.4VDC.

Evaluated By: A. McCoy and J. Morrison (OH)

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2011. NCWM, Publication 14: Weighing Devices, 2011.



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

Information Reviewed By: J. Truex (NCWM)

Example of Devices:



Model X320



Model R420



Model R423