



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Indicating Element
Digital Electronic
Model: FB6000 Series* (see below)
 n_{max} : 10 000
Accuracy Class: III / III L

Submitted By:

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Standard Features and Options

*Model ID: The "-xxx" in the model number is for manufacturer's use and has no metrological significance, for example:

- FB6001-xxx is the analog, desktop housing.
- FB6002-xxx and FB6005-xxx are analog, desktop (or wall mount) washdown housings.
- FB6003-xxx and FB6006-xxx are analog, panel mount washdown housings.
- FB6007-xxx is the analog, rack mount housing.
- FB6011-xxx is the Intalogix (digital), desktop housing.
- FB6012-xxx and FB6015-xxx are Intalogix (digital), desktop (or wall mount) washdown housings.
- FB6013-xxx and FB6016-xxx are Intalogix (digital), panel mount washdown housings.
- FB6017-xxx is the Intalogix (digital), rack mount housing.

"PN xxxxx" will be stated to the right of the "Model FB60xx-xxx." This PN xxxxx is a part number for manufacturing identification of variations of the certified "standard features" and "options" listed below.

Standard Features:

- Semi-automatic (push-button) Zero Setting Mechanism
- Automatic Zero Tracking (AZT)
- 16 Segment LED Display
- Keyboard Tare
- Semi-automatic (push-button) Tare
- Programmable Tare
- Multiple Tare Memories
- Gross/Net Display
- Serial, RS-232, RS-485, Current Loop and USB Ports
- Ethernet Interface, PC Output
- Remote Calibration and Configuration
- Weigh-In/Weigh-Out Capability
- Pound/kg/Ton/Tonne Units Available
- Multi-Interval Capability
- Category III Audit Trail Capability (see page 2)
- Stainless Steel and Mild Steel Housing
- AC Power 115 to 230 volts
- Basic Weighing Mode
- Remote Display, External Keyboard, and Printer Outputs
- Remote Switch Capability

Additional Features for the FB6005, 6, 7, 15, 16, 17:

- Relay control and Setpoint control.
- Weight Accumulation.
- Pound/Kilogram/Ton/Tonne/Ounce/Gram Units Available.

Options:

- Internal Analog to Digital Converter
- External Analog to Digital Converter (Model ACC-2000-XX External A/D Converter or equivalent with Model ACC-2001-XX Power Supply Box or equivalent).

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.

Kristin Macey
Chairman, NCWM, Inc.

Jerry Buendel
Chairman, National Type Evaluation Program Committee
Issued: May 2, 2017

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Fairbanks Scales

Indicating Element / FB6000 Series

Application: A general purpose indicating element to be interfaced with a certified and compatible weighing element.

Identification: The required information is on a self-adhesive foil identification badge located on the side of the indicator. This badge repeats the word "VOID" when removed.

Sealing: In addition to the Category III Audit Trail, the FB6001/FB6011 indicator utilizes wire security seals threaded through the holes in the side of the enclosure cover and through the holes in the heads of two drilled head screws in the side of the enclosure cover; the FB6005/FB6015 indicator utilizes wire security seals threaded through the holes in the flange of the enclosure cover and through the holes in the heads of two drilled head screws in the front of the enclosure cover; the FB6006/FB6016 and the FB6007/FB6017 utilizes wire security seals threaded through the holes in the heads of two drilled head screws in three locations on the rear enclosure cover; the FB6002/FB6012 utilizes a wire seal threaded through a hole in the enclosure cover and through a hole drilled in the flange for the closure clamp; the FB6003/FB6013 utilizes wire security seals threaded through the holes in the heads of two drilled head screws in the front panel of the enclosure. This prevents access to the internal scale functions of the indicator. External A/D utilizes wire security seals threaded through holes in the maintenance latches and holes in the housing.

The Category III Audit Trail utilizes an event logger. To view/print the event logger:

1. From normal weighing mode, press MENU key.
2. Using UP and DOWN keys, select "Audit Trail" and press ENTER key
3. Select "DISPLAY" or "PRINT" and press ENTER
4. Select "Generic" or "Complete" or "Scale #". Scale # is all options for a particular platform, Generic is all options not directly tied to a scale, and Complete is the entire trail.
5. Browse UP and DOWN in Display mode, or wait for printout.
6. Press MENU until weighing mode resumes.

Note: Some weights and measures regulatory agencies require that a scale be sealed not only by means of a category III audit trail but also by means of a physical seal. In these cases, an internal jumper may be used in addition to the Category III audit trail. When a jumper is installed, front panel and remote Calibration and Configuration functions are prevented. This creates a physical internal seal on the instrument, further secured by means of the external wire seal. When a jumper is not installed, front panel and remote Calibration and Configuration functions are allowed following the successful entry of a password (security code). The instrument is always protected by the Category III Audit Trail, regardless of the position of the internal jumper.

Note: To view state of enabling/inhibiting sealable hardware:

1. From normal weighing mode, press MENU key.
2. Using UP and DOWN keys, select "Audit Trail" and press ENTER key
3. Select "NJ JUMPER STATE" and press ENTER key
4. Display will indicate "Jumper In Place", meaning the device cannot be calibrated or configured, or "No Jumper", meaning configuration and calibration are permitted by means of a password protected login, traced through the Category III audit trail.
5. Press MENU key until weighing mode resumes.

Operation: A security code must be entered at service menu to gain access to indicator calibration. The indicator is capable of individually monitoring the output from a number of load cells within one scale system. The indicator is connected to an internal or external A/D converter. The FB6000 Series includes a Basic Weighing Mode which remaps the INbound and OUTbound keys to GROSS PRINT and TARE PRINT keys respectively.

Test Conditions: This certificate supersedes Certificate of Conformance Number 12-099A2 and is issued to add the relay and setpoint control, accumulation, and ounce/gram units options to the FB6000 Series. The enhancement adds model numbers FB6005, 6, 7, 15, 16, and 17 to the series. The emphasis of the evaluation was on the device operation, performance, marking, and sealing requirements. A quantity of 1 (one) Fairbanks Model FB6006-xxx, 1 (one) Model FB6007-xxx, 2 (two) Model FB6005-xxx, and 2 (two) Model FB6015-xxx indicating elements were submitted for the evaluation. *(Each of the two FB6015-xxx indicators were connected to a separate Fairbanks, Model ACC-2000-1 external A/D converter with ACC-2001-1 power supply).* Several performance tests were conducted with the indicators interfaced with a weighing element, load cell simulators, a remote display, and a printer. The weight accumulation feature, unit conversions, relay and setpoint control options were verified. Previous test conditions are listed below for reference.



Fairbanks Scales

Indicating Element / FB6000 Series

Certificate of Conformance Number 12-099A2: This certificate supersedes Certificate of Conformance Number 12-099A1 and is issued to add the external analog to digital converter option. The emphasis of the evaluation was on the device design, operation, performance, marking, sealing and compliance with influence factor requirements. A quantity of 2 (two) Fairbanks Model FB6011-xxx, 1 (one) Model FB6012-xxx and 1 (one) Model FB6013-xxx indicating elements were submitted for the evaluation. Each of the four FB6000 series indicators was connected to a separate Fairbanks, Model ACC-2000-1 external A/D converter with ACC-2001-1 power supply. Several performance tests were conducted with the indicator interfaced with a weighing element, load cell simulators, a remote display, and a printer. The indicator and external A/D's were tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Additionally, tests were conducted using power supplies of 115 VAC and 230 VAC.

Certificate of Conformance Number 12-099A1: This certificate supersedes Certificate of Conformance Number 12-099 and is issued to add a "panel mount" housing option. One FB6003 was submitted for evaluation. The emphasis of the evaluation was on the marking and sealing requirements. No other testing was deemed necessary.

Certificate of Conformance Number 12-099: The emphasis of the evaluation was on the device design, operation, performance, marking, and compliance with influence factor requirements. A quantity of 4 (four) Fairbanks Model FB6001-xxx and 1 (one) Model FB6002-xxx indicating elements were submitted for the evaluation. Several performance tests were conducted with the indicator interfaced with a weighing element, load cell simulators, a remote display, and a printer. The remote calibration/configuration feature, category III audit trail, multiple interval feature, and weigh-in/weigh-out operations were verified. The indicator was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Additionally, tests were conducted for unit conversion and using power supplies of 115 VAC and 230 VAC.

Evaluated By: J. Morrison (OH) 12-099; C. Harris (OH) 12-099A1; T. Buck (OH) 12-099A2, 12-099A3

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2017 Edition. *NCWM Publication 14 Weighing Devices*, 2017 Edition.

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) 12-099, 12-099A1, 12-099A2, 12-099A3

Examples of Device:



FB6001/FB6011



FB6002/FB6012



Fairbanks Scales
Indicating Element / FB6000 Series



FB6001/FB6011 Sealing



FB6002/FB6012 Sealing



FB6003/FB6013 and Sealing



Basic Weighing Mode



FB6005/FB6015 and Sealing



FB6006/FB6016 (Panel)



Fairbanks Scales
Indicating Element / FB6000 Series



FB6007/FB6017 (Rack)

FB6006/FB6016 and FB6007/FB6017 Sealing

