Subject: Micro Motion FDM, FVM, and HFVM Software Release 2.10

Overview

This documents the release of new software for the Fork Density Meter (FDM), Fork Viscosity Meter (FVM), and Heavy Fuel Viscosity Meter (HFVM). The version of this software is 2.10.

Products Affected

FDM, FVM, and HFVM.

NAMUR NE 53 Rating

This release is rated at NAMUR NE 53 Level 2 with a NAMUR NE 53 version of 01.02.01.

Symptoms

The following symptoms may appear with FDM, FVM, and HFVM:

- **All models**:
    - The board temperature on the display showed fixed units of deg C but the value was unit converted.
    - Input Water Density for In-line calibration check was not being unit converted.
    - Input Water Density for in-line calibration check was not being limited to a reasonable range.
    - It was possible to load incorrect software into the device without being notified.
    - When a discrete event was assigned to density in degAPI, the less-than and greater-than criteria appear to work oppositely because of the inversion caused by the unit conversion.

- **FVM only**:
    - The multicurve ASTM algorithm for Referred Viscosity was not checking the actual number of curves that were entered, so it always used the default of 4, causing error in the calculation.

- **FDM and FVM only**:
    - A HART polling control code set to primary or secondary was reset to Do Not Poll on a power cycle.
    - When connected with HART, the temperature values for the upper concentration matrix were not converted to user units.
    - When polling for pressure, if the pressure input type is set to absolute pressure, the conversion to gauge pressure was using the wrong sign.

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Resolution

- All of the above issues have been corrected with the release of version 2.10.

- No known safety issues remain open.

- For firmware updates to a unit in the field that is experiencing any of these issues, please contact Micro Motion service in your area.

Additional Features

- Added the NE 53 revision string to the display and Modbus registers 7241-7244.

- Added the ability to perform a mA trim from the display.

- Added damping configuration from the display.

- Added kinematic viscosity offset (FVM and HFVM only).

- Added density and kinematic and dynamic viscosity offset configuration from the display.

- Added the actual drive gain as a diagnostic for sand detection (FDM only).

- Increased the limit for the milliamp trim values to compensate for the greater variability in electronic components.

Firmware Checksum

0x177345BF

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Contact Information

Product information is available on the internet at: www.emerson.com.

Customer Service Phone Numbers:

Micro Motion USA	1-800-522-6277
Micro Motion Europe	31 (0) 318 495 555
Micro Motion Asia	65 6777-8211
Micro Motion UK	44 0870 240 1978
Micro Motion Japan	81 3 5769-6803

At Micro Motion we strive to stay on the leading edge of Coriolis technology. Upgrading to our latest MVD technology can pay for itself in a very short time period by improving your process measurement, improving diagnostic coverage, and improving the bottom line results of your process.

Thank you for your continued support.

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