Output Wiring Changes for Type 4 CPU Module in Daniel 3410 and 3810 Series Ultrasonic Flow Meters

Overview
This bulletin documents the output wiring changes when replacing a Type 2 CPU Module with a Type 4 CPU Module in Daniel 3410 Series and 3810 Series Ultrasonic Flow Meters.

Products Affected
- Daniel Gas Ultrasonic Flow Meters equipped with 3410 Series Electronics (Models 3411/3412/3414/3415/3416/3417)
- Daniel Liquid Ultrasonic Flow Meters equipped with 3810 Series Electronics (Models 3812/3814/3818)

Description
The Type 4 CPU Module is now available for Daniel 3410/3810 Series Electronics (3410 / 3810 Series Electronics Flyer) to increase the frequency output / digital output (FODO) capability over the Type 2 CPU Module.

In order to offer an increase in outputs, some of the terminal functionality has been relocated and the second analog output has been removed.

For users of the current Type 2 Module, the Type 4 Module is available as a replacement or as an upgrade to existing meters. This will require a minor relocation of FODO 3 (if used) and removal of analog output 2 wiring.

Resolution
Frequency output 3 (FODO3) moves from pin 4 to pin 2 in the Group 2 terminal block. Ground 2 (GND2) moves from pin 2 to pin 4 in the Group 2 terminal block. In effect, this is simply swapping the frequency output wiring for output 3.

Analog output 2 pins (AO2+ and AO2-) are removed. Those pins (5 and 6 in the Group 2 terminal block) become frequency/digital outputs 4 and 5, respectively. The grounds for FODO’s 4 and 5 are shared with FODO’s 2 and 3 on pins 3 and 4 of the Group 2 terminal block.

The sixth frequency/digital output FODO 6 is software configurable on pins 2 and 3 of the Group 1 terminal block as either a digital input or as a frequency/digital output.

Please refer to the wiring diagram for additional information.
Figure 1: Type 2 CPU Module Terminations

Figure 2: Type 4 CPU Module Terminations
Configuration of the additional frequency/digital outputs requires Daniel MeterLink version 1.31 or later. See the screen captures below to preview a few of the configuration dropdown menus.
Contact Information
Product manuals and other technical information are available on our web site at www.Emerson.com/Daniel.

Please refer to the menu below to contact a Flow Lifecycle Services representative in your region who can provide assistance for Daniel products.

At Emerson, our vision is to be the undisputed global leader of flow measurement solutions and to provide world class support for your Daniel products. We appreciate your patronage and look forward to assisting you.

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