# DD200 Connected To EX215 With No FT420

## Introduction

A basic feature of all Data Dolphin data logger's is the ability to record the time of an electrical switch closure event. This makes the Data Dolphin an excellent choice for capturing the pulses from an EX215 flow meter.

## The Pipe Flow Collection System

A typical pipe flow collection system usually consists of the following basic components:

- DD-200 with firmware Version 166.8 or later
- EX215 Seametrics Flow Meter **without** FT420 Flow Computer
- A 2-conductor, shielded cable

As a general rule, we mount the sensor at the 2 o'clock or 10 o'clock position.

Ideally, you will want your Data Dolphin data logger mounted close to the EX215 so the distance between the two is minimal. This improves the grounding wires efficiency (lower resistance).


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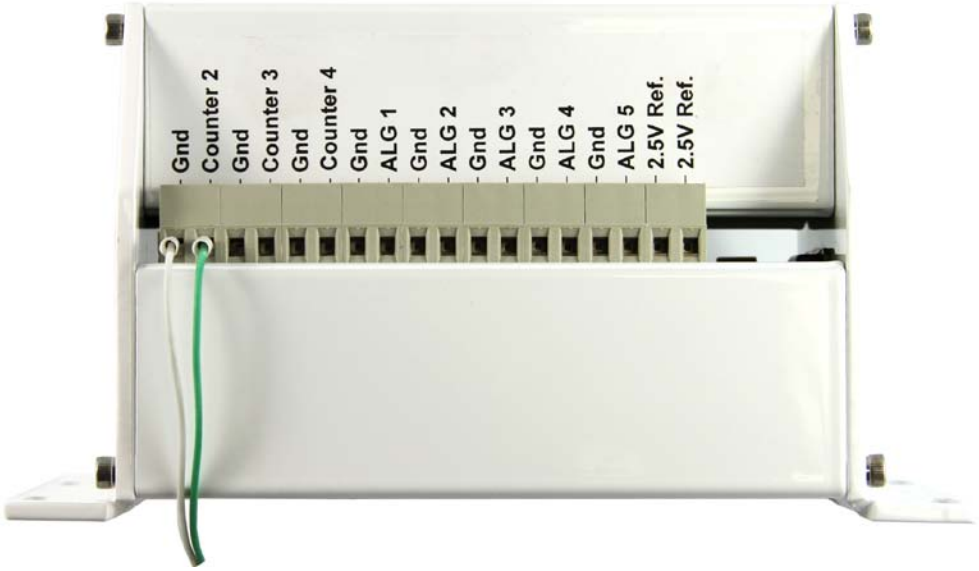
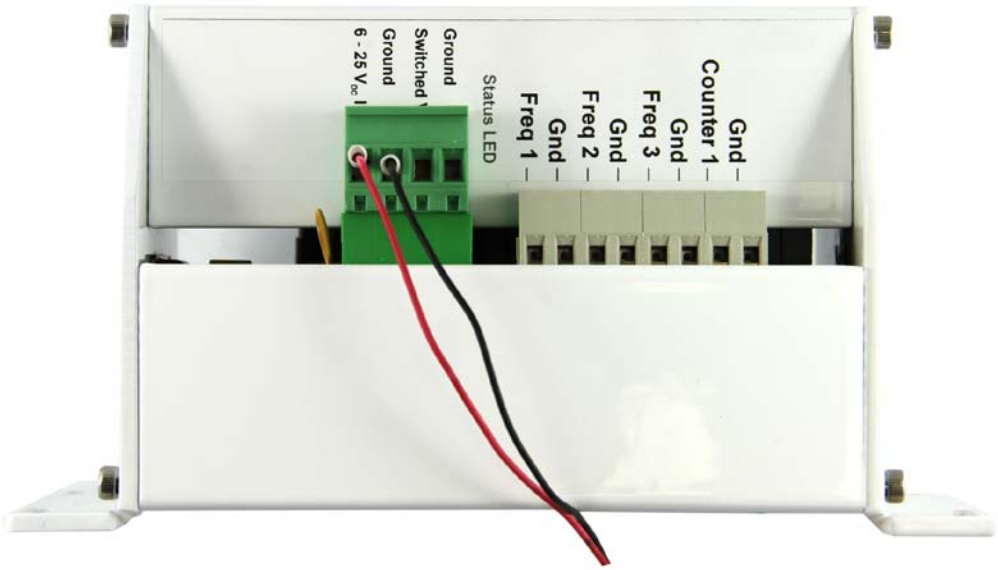
## Wiring the EX215 to the Data Dolphin Datalogger

See the pictures below for the wiring from the EX215.

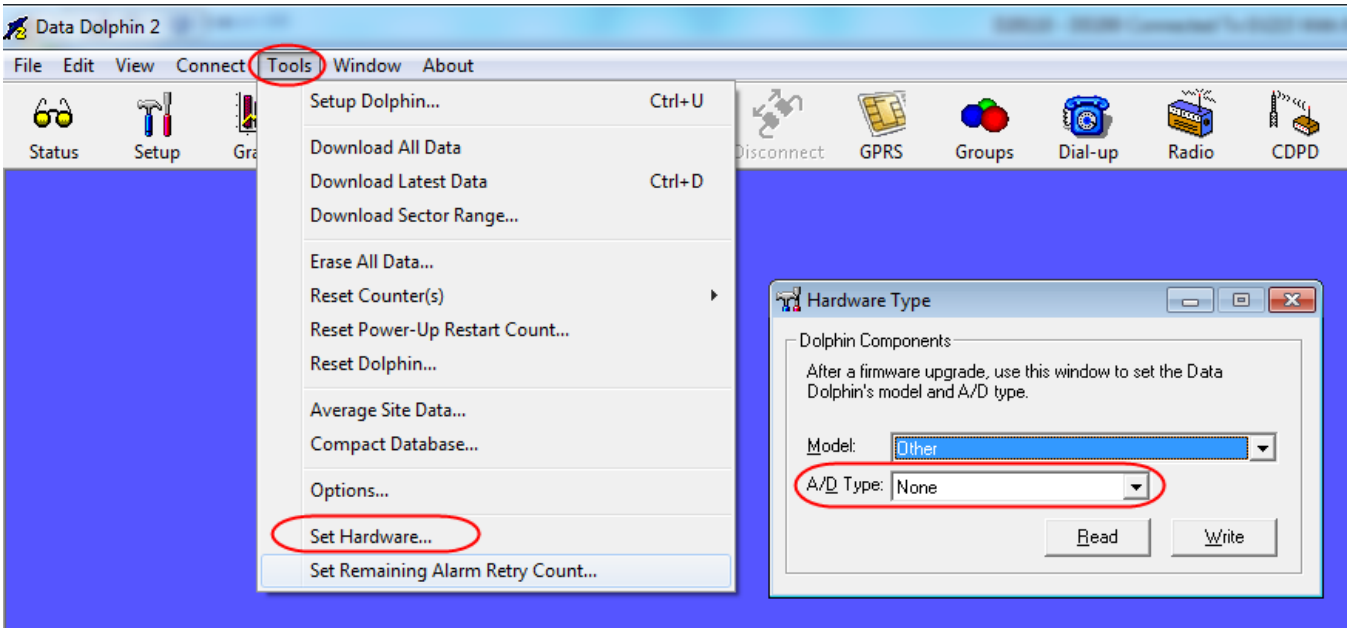



| Wire | Signal |
|---|---|
| Green | Pulse Out (Forward Output) |
| White | Ground |
| Black | Ground |
| Red | 12 Volts Continuous |

## Configuring the Data Dolphin for EX215 Input

Please ensure you are using DD-200 with firmware Version 166.8 or later and that the A/D Type is set to **None**.

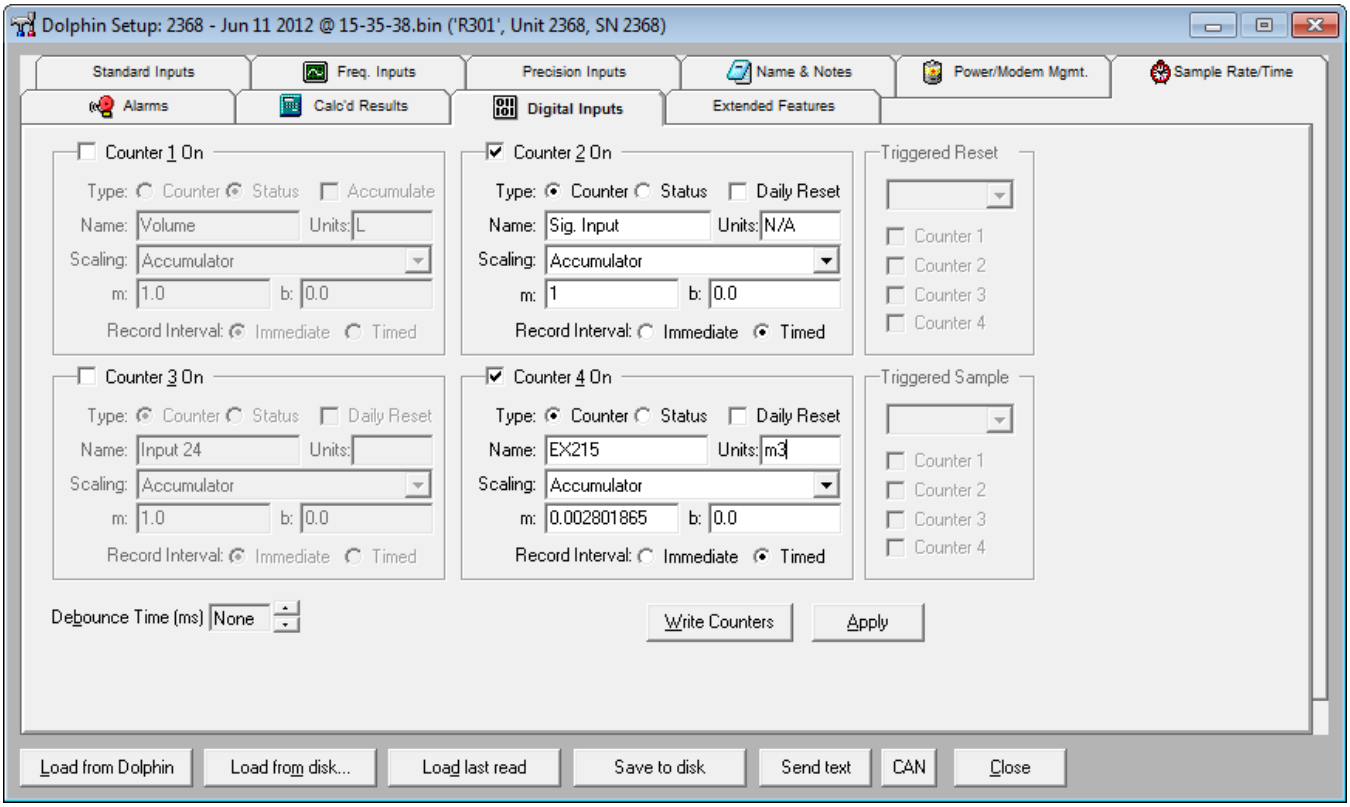



To use the EX215 without the flow computer we have to use two counters, one for the actual signal wiring input and a second for the pulse processing. This pulse processing channel is internally always Counter 4. Choose a single counter (1, 2, or 3) as the signal input but **Counter 4 MUST BE LEFT PHYSICALLY DISCONNECTED**. When a pulse comes in on any of the first 3 counter inputs, counter 4 is internally incremented. Wiring a signal to counter 4 will cause the counts to be doubled and should not be done.

The example below demonstrates using Counter 2 as our electrical/signal connection. Notice Counter 4 is also turned on even though there is no physical connection and this is where we add the K-factor. In the past some units have been shipped with Counter 3 labeled as filtered identifying that this is the electrical connection only.

Also in the past, Counter 4 is labeled as unfiltered and is the channel that holds the flow value. By using 2 channels we are able to operate with an EX215 when the EX215 is connected directly and not through the FT420 Flow Computer/LCD display box.
When using this special EX215 direct connection method the K-factor goes into Counter 4 m (slope) independent of the signal Counter input. For example, if our K-factor is 0.002801865, this would be entered as the 'm' on Counter 4 and 'b' is always 0.

In our example Counter 2 (signal input) m & b are not used and should be left at m = 1, b = 0.




Hit Apply when your inputs have been configured correctly.