

7.4. Hardware Setup

General

Details of the type of pulse output the Dattus uses for all four of its outputs;

- Form A, electronic type
- Non-isolated
- Reverse current protected (has polarity)

Maintaining Intrinsic Safety

The design of the Dattus meter conforms to the UL and CSA ratings of Class 1 Div 1 group C&D and Class 1 Div 2 hazardous locations. See Control Drawing 442000-003 in Appendix C , for details in maintaining the rating including;

- Voltages less than 16V and,
- Current less than 25mA.

Pulse Cables

There are two lengths of pulses cables available, 10' (P/N 442465-005) and 20' (P/N 442465-006), other than length they are identical. Both cables have a binder connection for direct connection to the Dattus meter (reference Figure 1-2: Electronics Housing, page 15), and bare wire leads on the other end. Reference Figure 7-7: Pin Locations on Binder, for the pin out, and Table 7-5: Pin/Cable/Output Match-up, for mating wire color and output channel.

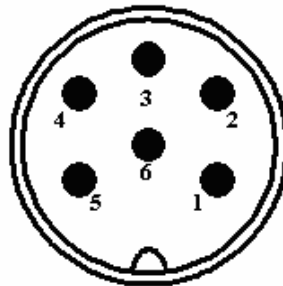


Figure 7-7: Pin Locations on Binder

<u>Pin</u>	<u>Wire Color</u>	<u>Associated Output Channel</u>
1	White	Output 2 (+)
2	Black	Output 4 (+)
3	Green	Ground (-)
4	Orange	Output 3 (+)
5	Red	Output 1 (+)
6	Blue	Ground (-)

Table 7-5: Pin/Cable/Output Match-up



Both of the ground connections, blue and green wire connections are tied together in the Dattus meter to the meter body. All channels have a common ground, they are non-isolated.

Types of Outputs

“Type” defines either the volume type or alarm that a particular channel will be configured. They are as listed in Table 7-2: Output Types.

<u>Output Type</u>	<u>Description</u>
Uncorrected	Uncorrected Volume output
Corrected	This is the Fixed Factor Pressure Corrected volume output. Creates some specific additional limitations that need to be considered.
Mux Uncorrected	This is the output directly synchronized with the gas oscillation in the meter. It is the raw output. Generally not used.
Alarm	This is a discrete output type. During alarm, activates a switch closure.
None	Deactivates the output

Table 7-2: Output Types

Output Modes

The next configuration selection is for the operating mode for the pulse outputs. These are only available for an Uncorrected or Corrected pulse type. Refer to .

<u>Output Mode</u>	<u>Description</u>
Selectable Duty	This allows the user to also specify the pulse width. Means that the contact will be closed for a specified length of time. Also creates some limitations, See Selectable Duty, page 83
50% Duty Cycle	The contact is closed ½ of the time, or 50%. Does not have a flow rate limitation like selectable duty. May cause more power drain on auxiliary equipment depending on its configuration, due to the contact being closed 50% of the time.
HF Output	This is an output frequency proportional to flow rate. The maximum frequency is 512 Hz at a flow rate that is user defined. Reference Meter Volumes (Volumes Tab), page 40. The minimum frequency is 0.5 Hz at zero flow.

Table 7-3: Mode Types

Pulse Weight

The user may specify the pulse weight that they want to use for a particular output. This only applies to either an Uncorrected or Corrected type selection and a 50% duty cycle or selectable duty mode selection.