Application Notes:

# Intech GP-HR Logger

# OmniLog Flow Wizards

Flow meter logging made easy using the Intech Omnilog Flow Wizards.

Two new wizards were added to OmniLog Version 1.36. One simplifies the setup of flow sensors and the other provides a range of reporting options for flow data.

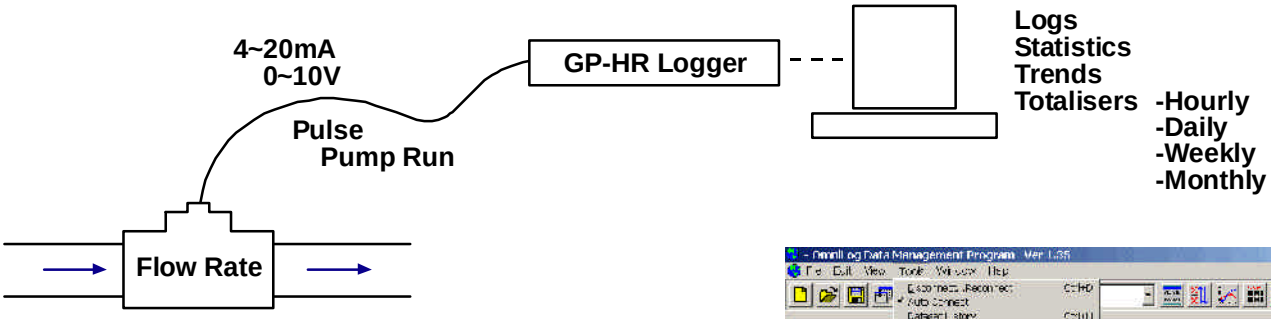
- The **Flow Setup Wizard** is used to configure a logger for a variety of different inputs from flow meters as follows:
- Pulse
- Analogue including 4~20mA, 0~10V, 0~100mV
- Pump run contact. A fixed flow rate is assumed when pump is running.

- Volume can be totaled in litres, Cubic Meters, UK Gallons, US Gallons.

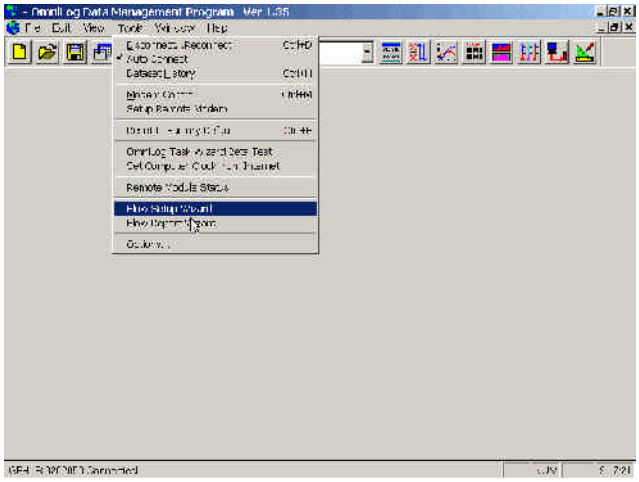
Each GP-HR Logger is a 4 channel logger, and will accept up to 3 flow meters with an analogue output, plus 1 flow meter with a pulse output or Pump Run Contact.
*(Note: Pump Run uses the digital channel plus 1 analogue channel)*

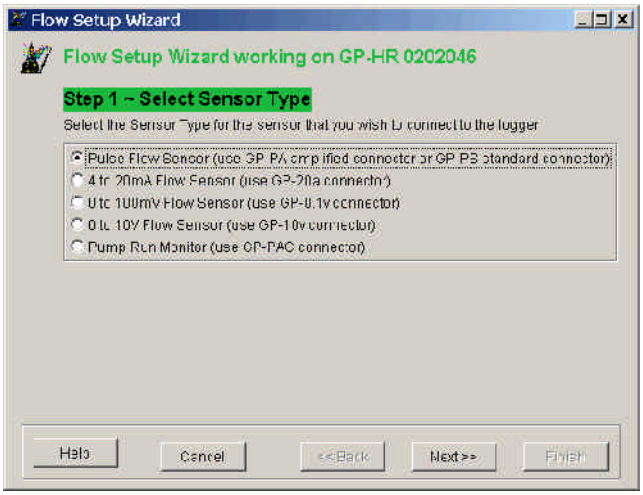
The Flow Wizard leads the user through a step by step procedure for selecting the required flow units.

The **Flow Report Wizard** is used to generate Hourly, Daily, Weekly and Monthly totalised reports of flow data from loggers that have been set up using the Flow Setup Wizard.



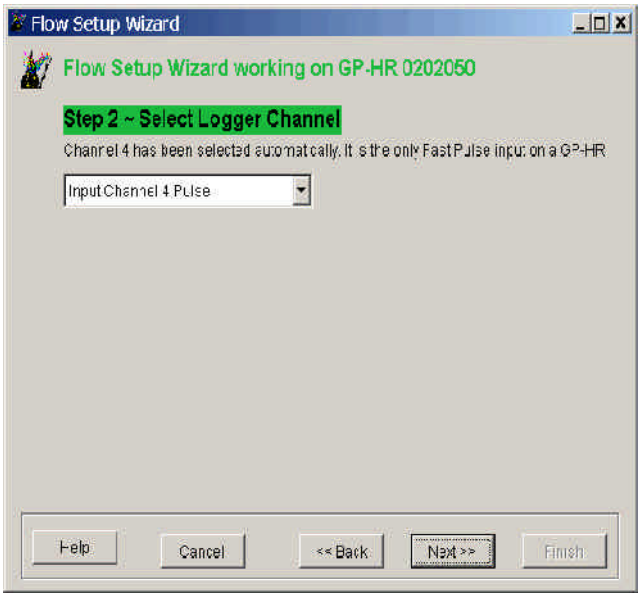

The Flow Setup Wizard is selected from the Tools menu.

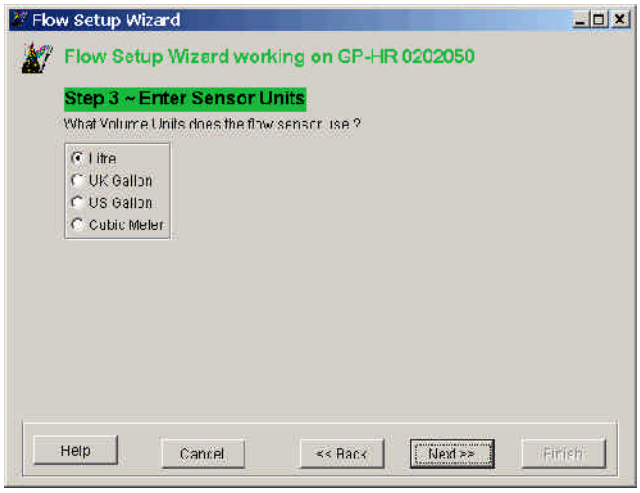




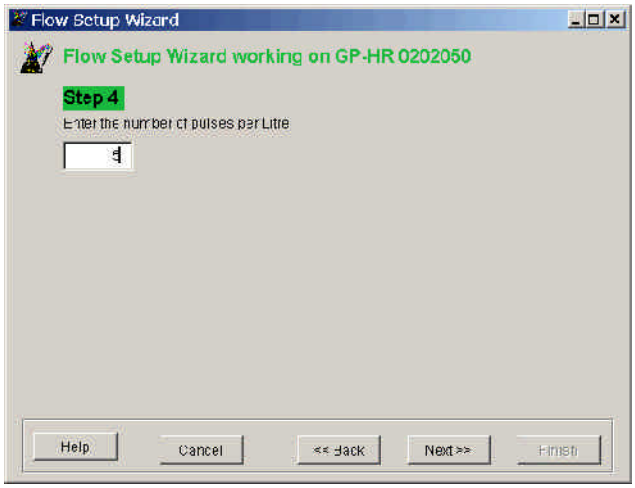

First we select the flow sensor type.

If we select a Pulse sensor the wizard will allow us to select a Pulse input channel on the logger.

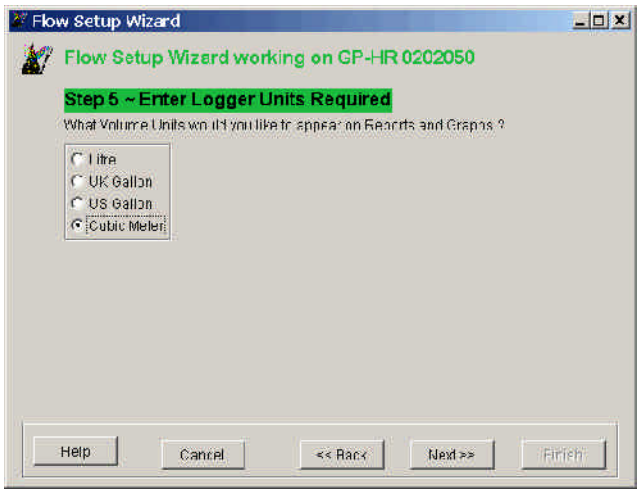


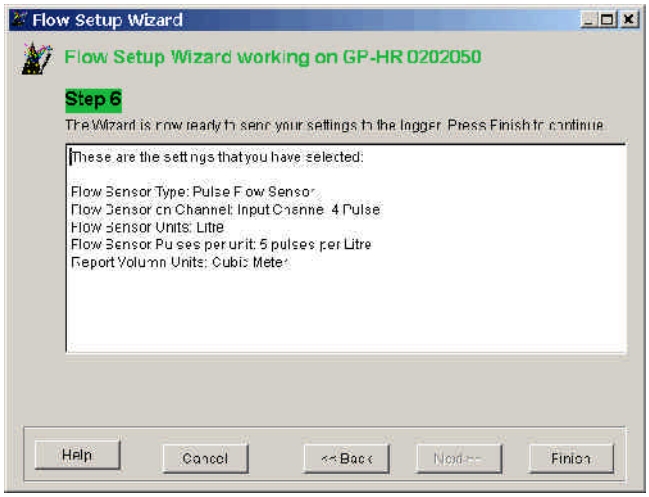

Then we enter the volume units use by the sensor.




Next we enter the number of pulses per sensor volume.

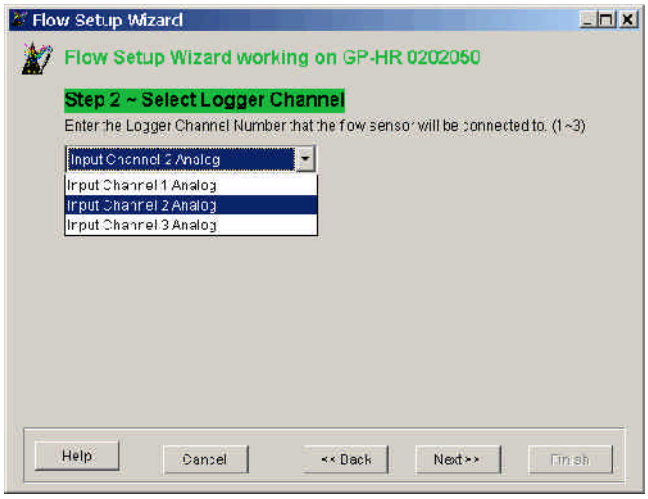



Next we enter the Volume units that we want to appear on reports and graphs.

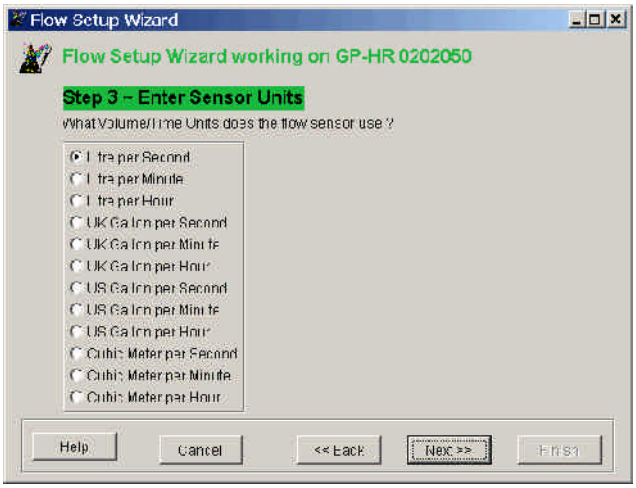



Finally we check that all details have been entered correctly and press the Finish button. The Wizard then sets up the Logger.

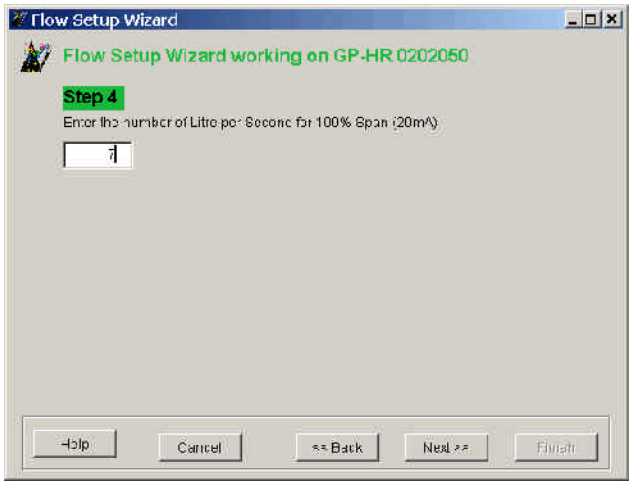
# The Logger can now be started and Flow data collected



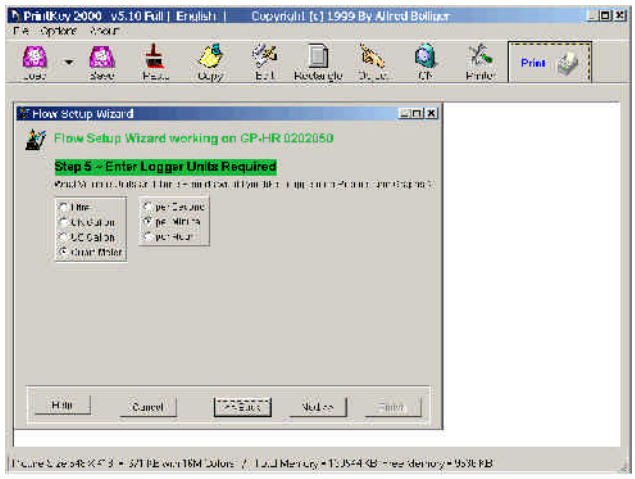

If we select an analog flow sensor (4 to 20mA, 0 to 100mV or 0 to 10V) in step 1 the wizard will first ask you to select an analog input channel.



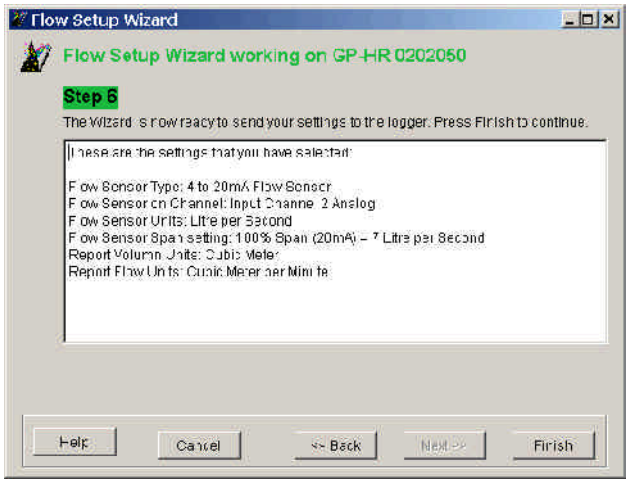

And then select the Volume/Time units for the sensor.




Next we enter the Volume per Time value for 100% Span.



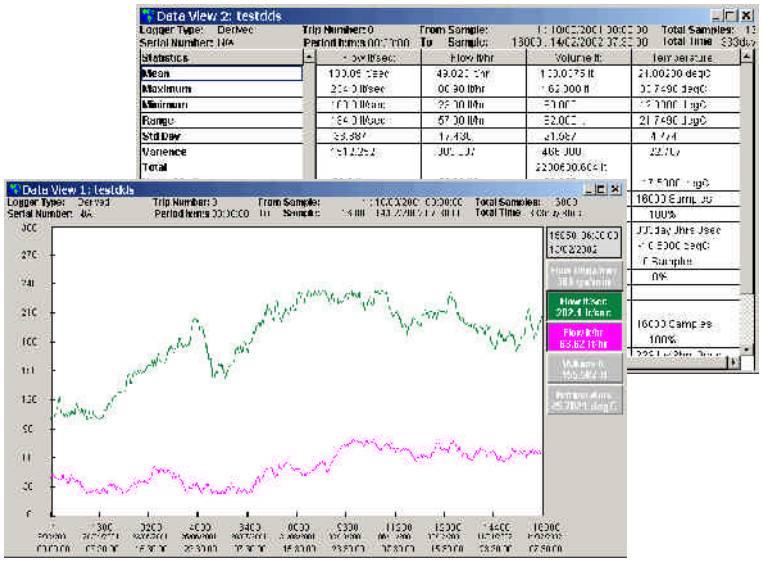

Then we select Volume per Time units required on reports and graphs.

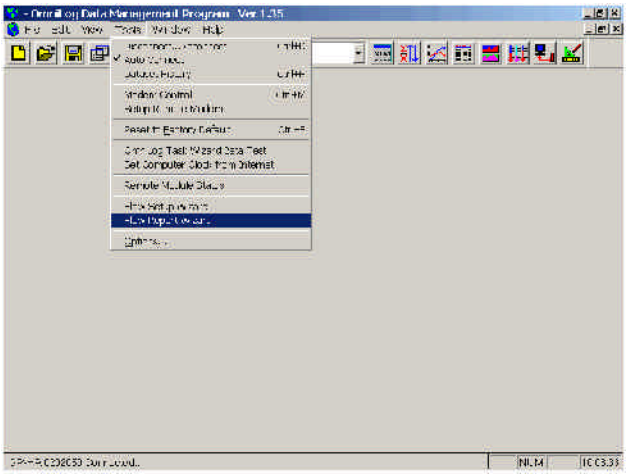



step 1 the wizard will first ask you to select an analog input channel.
Next we enter the Volume per Time value for 100% Span.
Finally we check that all details have been entered correctly and press the Finish button.
The Wizard then sets up the Logger.

# The Logger can now be started and Flow data collected

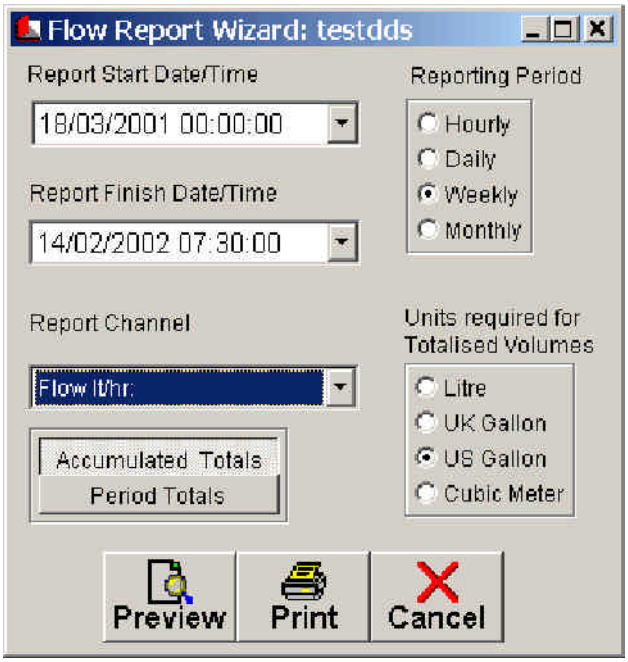
The logger can now be used in the normal way to collect data. Data can be downloaded and displayed in the normal way. Values, Statistics and Graph views will show data in the units selected in the setup wizard.



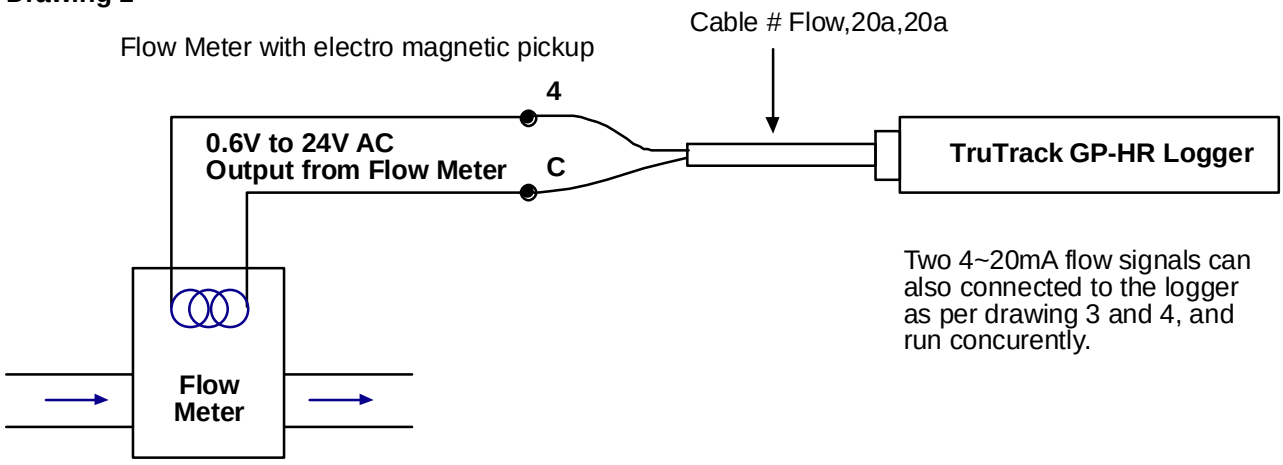
Once data has been downloaded the Flow Report Wizard can be used to generate a range of totalised flow reports.
The Flow Report Wizard is selected from the Tools Menu

The Flow Report Wizard is used to select the Start and Finish Time of the report, the reporting period, the channel, the units for totalised Volumes and the type of totaling.

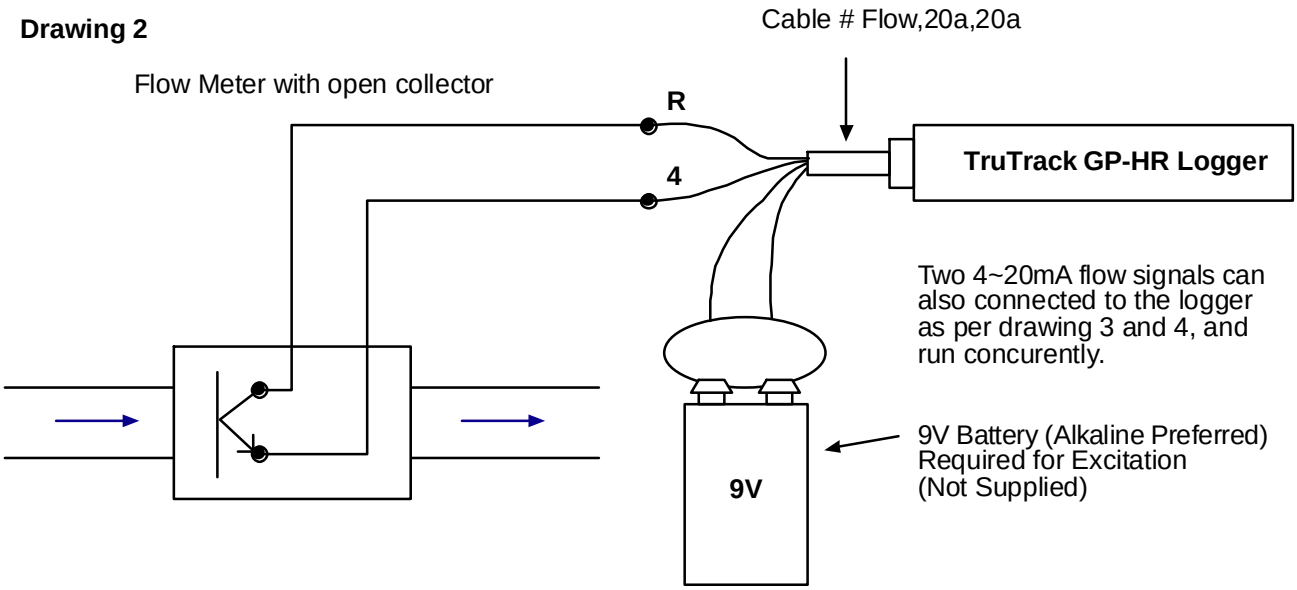


# Flow Meter Connections Examples

**Drawing 1**

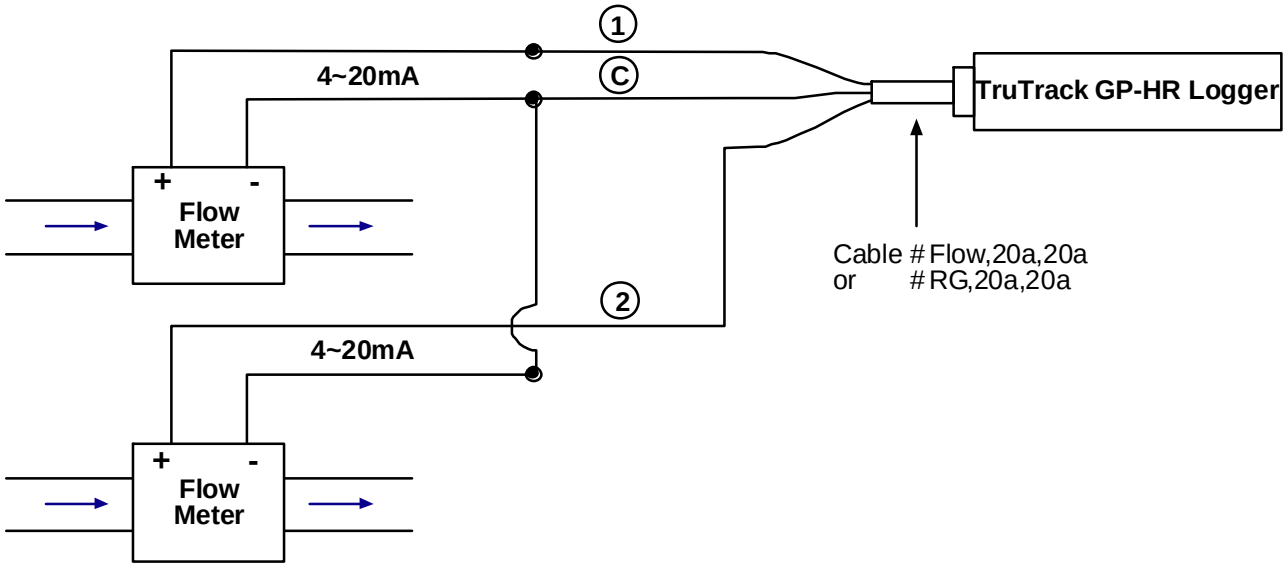



**Drawing 2**



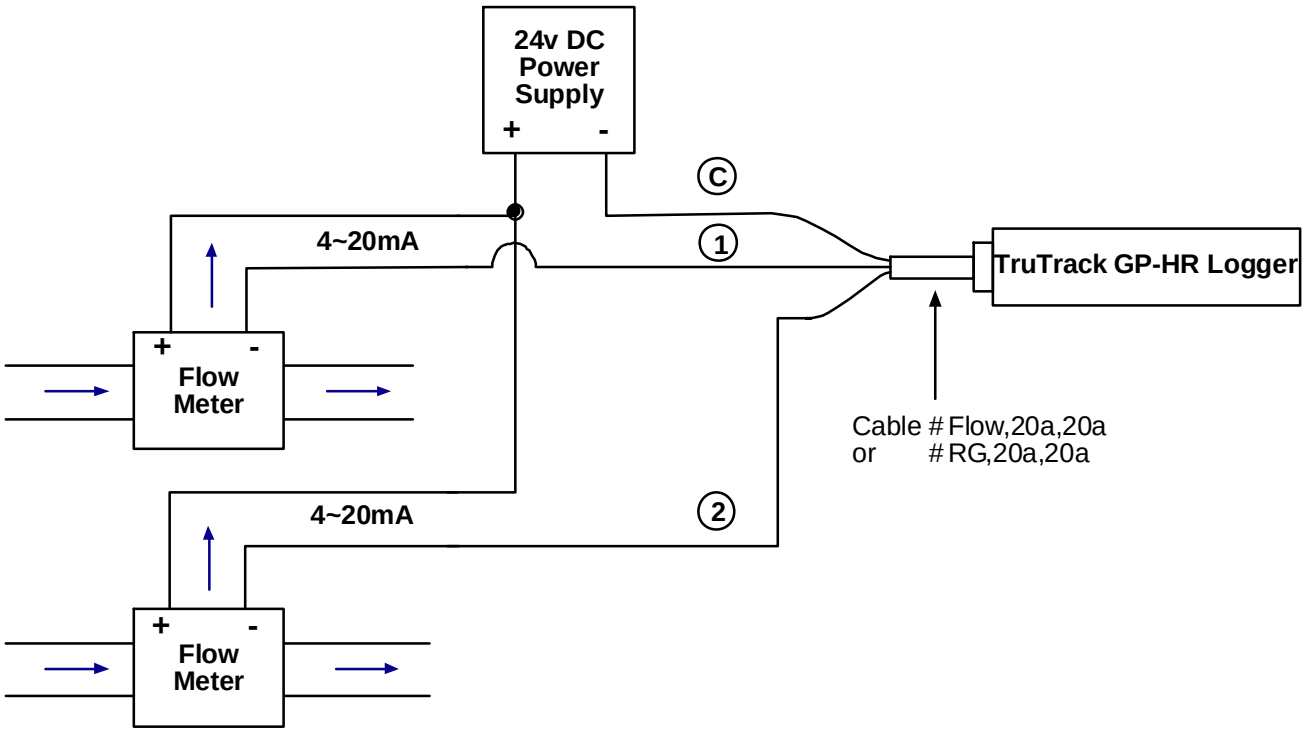

**Drawing 3**

Example of Flow Meters with 4~20mA output where the 4~20mA loop is being driven by the Flow Meter



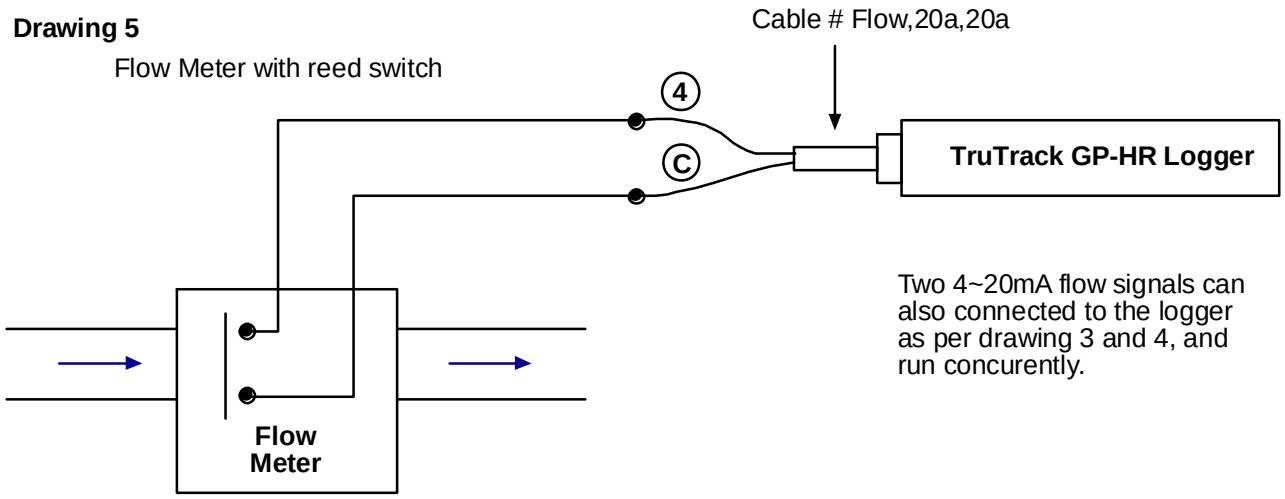
**Drawing 4**

Example of Flow Meters with 4~20mA output where the 4~20mA output needs to be powered




**Drawing 5**

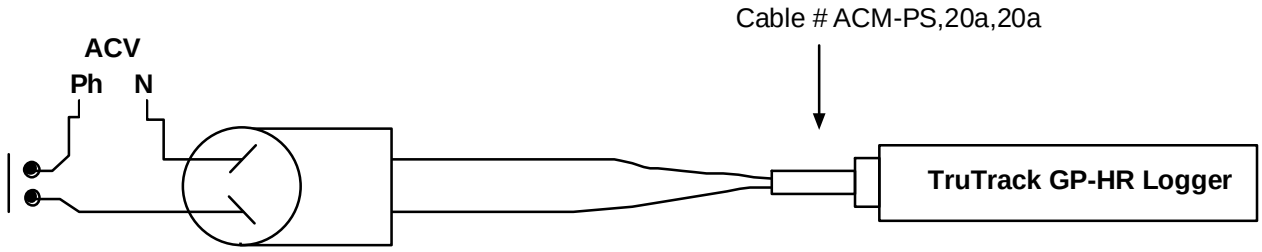
Flow Meter with reed switch




Two 4~20mA flow signals can also connected to the logger as per drawing 3 and 4, and run concurently.

**Drawing 6**

Example of connection to the “Pump Run Contact” using the “ACM-PS,20a,20a” Logger input cable to determine flow based on pump run time. (Standard = 230v AC. Other AC voltages and frequencies available on request.)




**Pump run contact**

Two 4~20mA flow signals can also connected to the logger as per drawing 3 and 4, and run concurently.