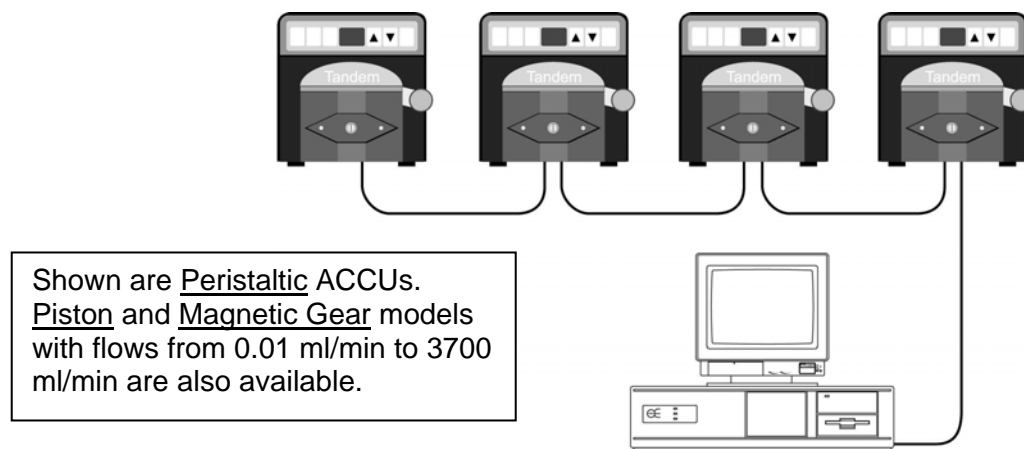


Daisy Chain Control of Multiple ACCU Digital Metering Pumps

SUMMARY:

The ACCU Provides a low cost, high precision pumping capability with digital pump control and display. It is ideally suited for simultaneous feed scheduling of multiple bioreactors or fermentors, as well as for multi-solvent dispensing and batch formulations. Three remote control options are available, 4 – 20 mA, 0 – 5 VDC, and RS-232. Utilizing HyperTerminal on your PC, up to 32 ACCU pumps can be daisy-chained together and controlled independently from a single PC.



FEATURES:

The ACCU pumps can be remotely controlled with a fixed command set. All commands are preceded by a carriage return and a pump identifier made up of the letter “P” followed by a number 0 to 31. The number indicates the pump address. Valid commands for serial pump control are:

- * **N Turns pump on** Example: **P1N** turns pump 1 on.
- * **F Turns pump off** Example: **P3F** turns pump 3 off.
- * **D Sets pump direction** Example: **P2D0** sets the direction of pump to clockwise. The value after the “D” command defines the direction (**0 = CW; 1 = CCW**)
- * **S Sets pump speed** Example: **P7S0500** sets the speed of pump 7 to 50%. The 4 digits following the ‘S’ command defines the speed.
- * **Z Assigns pump addresses**, auto-address feature. Example: By sending the command **Z1** to the first pump, a pump address **P1** is assigned that pump. In multi-pump applications, the pump **P1** automatically sends the command **Z2** to the second pump in the chain thereby assigning pump address **P2** to the second pump. The last pump in the chain echoes the last **Z**-command, incremented by one, back to the PC.

NOTE: Make sure that all ACCUs in the Daisy-chain are in the “Local” setting. After installing the RS-232 (daisy-chain) cable and implementing the appropriate HyperTerminal Settings, type “**Z1**” from your PC keyboard, you now have assigned all pump addresses.

Several Motor / Pump Head combinations are available to meet your flow rate needs. Contact SciLog with your specific needs.