Technical Bulletin
FT500 Batch Flow Processing

The FT500 Batch Processor is a versatile programmable controller, and is easily configured using the front control panel. The FT500 provides a frequency output proportional to flow, and works well with Seametrics flow sensors and meters, or other manufacturer's sensors.

The FT500 provides such basic features as:
> 2 relay outputs
> Flow Rate in five digits, with a selection of various of time/units for rate and total flow
> Flow Total in eight digits, with a selection of various time/units for rate and total flow
> Digital Pulse Output (1:1 based on sensor output)
> Digital Scaled Pulse Output (10:1, etc. based on desired gallons per pulse)
> Analog Loop Output (04ma minimum, 20ma set maximum)
Please see the current Specification Sheet for additional features of the FT500-Series.

The FT500 comes in four factory selected, non-concurrent configurations offering a full suite of control functionality:
FT520 Batching Flow Processor
FT520-84 Regeneration Control
FT520-86 Alarm Relay Output
FT522 Usage Monitor

FT520 BATCHING FLOW PROCESSOR
Batch mode is simple; enter k-factor, enter batch size, then press START/STOP. Relay K1 will energize, the unit will count up the programmed units, then relay K1 will de-energize, completing the batch. To start another batch, simply depress the START/STOP button again. If a "staged shut off" is desired, connect relay K1 to the early shut off valve, and relay K2 to the system main valve. In this case you need to enter SET PRE-WARN SIZE, to slow the fluid velocity for a smoother and more accurate shut-off.

FT520-84 REGENERATION CONTROL
The output of the -84 option can be used to initiate regeneration (regen) in a variety of single tank and dual tank water treatment systems. In addition, the pulse output can also be used to control a chemical metering pump. Connect regeneration valves to relay K1 and relay K2. If only one unit is used, connect only relay K1 (relay K2 works only with "alternate relay mode". Set the regen volume, at which relay K1 energizes. Set regen time, the length of time relay K1 remains on to initiate the regen. After the settings are entered, the next SET key puts the unit in operation. If a "T" appears at left of display, the values shown are the flow rate and flow total. If no "T" appears the values shown are flow rate and units remaining till regen. The total increases with the flow and the regen quantity counts down.

FT520-86 ALARM RELAY OUTPUT
The -86 is a flow rate alarm. In the operation menu enter the k-factor, and the setting for low (and/or) high flow alarm. When flow gets too low, or high, relay K1 is energized. To monitor rate and flow continuously, program alarm settings at such high/low values, the alarm will not trigger.

FT522 USAGE MONITOR
The FT522 monitor will close both relays for excessive water use detection within a given time period. Enter the k-factor, time period, and alarm point in gallons. Press START/STOP. The timer will start, the total will zero out, then accumulate until the pre-set time is reached. The unit then automatically starts the cycle over again. If the total flow ever reaches the alarm point, the relays will energize until RESUME is pressed.

Note: *These notes are provided as a general reference only, and are subject to change without notice. Please consult the Seametrics Specification Sheet, Instruction Manual, or Applications Engineering for future information.*

Seametrics Incorporated • 19026 72nd Avenue South • Kent, Washington 98032 • USA
(P) 253.872.0284 • (F) 253.872.0285 • 1.800.975.8153 • www.seametrics.com

LT-65200341-A
9/23/09