

C800 OmniPlex Multi-Function Controller

Pump Flow Rate and Meter Functions

Earthsafe duplex pump units, triplex pump units, and filter / polishing units all utilize Viking positive displacement pump. A characteristic of these pumps is that, unlike centrifugal pumps, the pump flow rate is very accurate with a constant speed motor. The metering accuracy is enhanced by inputs for pressure and temperature which the PLC uses to correct flow calculations. Also the high pressure input indicates flow through the pump relief valve which is excluded from calculations.

The accuracy of the fuel metering is approximately $\pm 2\%$. This is not accurate enough for custody transfer purposes but is very useful in a number of applications.

The pump flow rate reading allows a check that for multiple emergency generators, the pump system is performing sufficiently to satisfy the demand of all generators operating simultaneously.

The flow rate may be used as a check of pump performance for auto-switching to a secondary pump if there is a problem.

In Filtration / Polishing systems, the flow capability allows programming to set a filter cycle based on the total volume filtered matching a tank volume.

In day tank applications with on-board pump supply, the metering function will provide consumption information that may be required for emissions monitoring conformance.



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