

## FLT Pump Protection Flow Switch Reduces Pump Maintenance and Extends Life

*Chemical Processing, Mining/Milling,  
Oil/Gas, Pulp/Paper, Water & Wastewater and Much More*



San Marcos, CA—August 31, 2011--Process and plant engineers attending the [Pump Users Symposium](#) will find the advanced [FlexSwitch® FLT93 Pump Protection Flow Switch](#) from [Fluid Components International \(FCI\)](#) reduces pump repair and extends pump life by detecting dry running conditions caused by irregular liquid flows or slurries.

In addition to exhibiting its FLT Switch at the Pump User's Symposium, FCI also will display its new breakthrough [ST100 Series Air/Gas Mass Flow Meter](#), and the flow measurement accuracy enhancing [Vortab Insertion Panel \(VIP\) Flow Conditioner](#). All three products provide exceptional application solutions, performance and value in the measurement of plant air/gas flow.

The Flow/Level/Temperature (FLT) Pump Protection Flow Switch reliably monitors the flow and temperature of liquids, gases, slurries, syrups, lubricants, coolants and more. It is ideal for pump wet/dry detection, where sudden, unexpected reductions in media flow rates may leave pumps vulnerable to over-heating conditions that can result in bearing or seal damage that require major repairs or shorten their useful life.

The FLT Flow Switch, with its no moving parts design, offers a highly robust scheme for pump protection with its dual alarm capability. With Alarm 1, the switch will detect a low-flow situation anywhere between 0.01 and 3 feet per second (FPS) (.003 to .9 meters per second MPS). This low flow alarm can be regarded as a pre-warning signal for the control system or operator. The system or operator can then decide to keep the pump running or to shut it down.

If an Alarm 2 occurs because the feed line to the pump is running dry, this condition would be an emergency signal to shut down the pump immediately because

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the bearings now see gas instead of a liquid as a heat transfer media. In such situations, the temperature of the bearings may rise very fast. Using a flow switch prevents permanent damage to the pump's bearings that will require an overhaul of the pump before more damage occurs.

The FLT flow switch is a dual-function instrument that indicates both flow and temperature, and/or level sensing in a single device. It can be specified in either insertion or in-line styles for pipe or tube installation. With the FLT, a single switch monitors both key variables necessary to protect pumps, measuring liquid flow and temperature simultaneously with excellent accuracy and reliability. Dual 6A relay outputs are standard and are assignable to flow, level or temperature.

The FLT features a wide set-point range, which varies according to service media (liquid, gas or foam), beginning from 0.01 to 3 SFPS (0.003 to 0.9 SMPS) in water-based liquids. It is hydrostatically proof pressure tested to 3500 psig [240 bar (g)] at 70°F (21°C). De-rated with temperature, the maximum operation service recommended is 2350 psig [162 bar (g)] at 500°F (260°C). Higher ratings are available with special construction and test certification. Agency approvals include: FM, ATEX, CSA, CRN and CE.

Highly dependable, FCI's versatile Flow/Level/Temperature (FLT) Switches provide precise, rapid flow or level control in liquids or slurries, as well as temperature measurement. They are ideal for applications in many demanding process industries, including chemical processing, food/beverage, mining/milling, oil/gas, pulp/paper, pharmaceutical, water/waste treatment and more.

Fluid Components International is a global company committed to meeting the needs of its customers through innovative solutions to the most challenging requirements for sensing, measuring and controlling flow and level of air, gases and liquids.