

Performing Double-Duty in Air or Hazardous Gases, The Dual Function FS10i Flow Switch/Monitor Cuts Plant Costs

Ideal for Wide Range of Gas Flow Applications Where Process Safety Is Important

San Marcos, CA — The dual function [FS10i flow switch/monitor](#) from [Fluid Components International \(FCI\)](#) with its flexible design delivers two functions in a single instrument, providing process and plant engineers a flow monitor at the price of a flow switch.

Particularly useful in gas flow safety-related applications because it is designed to provide a dependable high- or low-trip point alarm, the SIL-rated FS10i flow switch is a versatile instrument. It also includes an analog 4-20mA output signal at no additional cost. Configured in the field, the FS10i also eliminates the burden of additional calibration costs that are normally associated with other flow measurement applications.

The insertion-style FS10i flow switch/monitor operates over a wide flow range in air/gas from 0.25 FPS to 400 SFPS [0,076 MPS to 122 MPS] and in water from 0.01 FPS to 0.5 FPS [0,003 MPS to 0,15 MPS]. Repeatability: $\pm 0.5\%$ of reading.

The full range capability of the FS10i flow switch/monitor can be employed in gas applications, including hazardous gases. With its optional Div 2/Zone 2 approvals, the FS10i is ideally suited for applications monitoring seal leaks, compressed air leaks, and assuring that purge air flow is verified. The FS10i's analog span is established by simply simulating low flow and high flow conditions under the setup mode. The 4-20 mA output, though non-linear, will now track the flow over that range.

The FS10i flow switch/monitor's analog output is ideal for trending flows that can provide an early warning of clogged filters, pipe fitting leaks, wearing seals, pump problems and other causes of flow disruptions before system shutdown. This instrument's capabilities are a highly useful tool in avoiding damage to expensive pumps and compressors and other equipment that can require extensive maintenance or replacement.

The FS10i is designed for simple insertion into 0.5 inch [13 mm] or larger diameter pipes and square ducts. It is fast responding and highly repeatable to both increasing and decreasing changes in flow rate. This switch/monitor also includes a 10-LED array that provides both a useful visual indication that the trip point has been exceeded (LED flashes on/off) and of relative flow rate (10 percent increments) across the flow range.



The FS10i flow switch/monitor provides best-in-class features for installation in rugged environments and for long-life in industrial plants, process and large buildings. Its flow sensor thermowells are constructed of highly corrosion resistant Hastelloy C-22. It operates in fluid temperatures -40 °F/°C] up to 250 °F [121°C], in pressures up to 2000 psi [138 bar]. It also features IP protection rating to IP67 for its housing, and meets the National Fire Prevention Association NFPA Standard 86 compliance.

Designed for reliability and dependable measurement, the FS10i Flow/Switch monitor is the only instrument of its type and in its price range to carry a SIL-2 compliance rating. It has no moving parts to clog or foul and requires no routine maintenance, which saves time and expense over any mechanical-technology based flow switch.

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.