

Analyzer Verification in Hazardous Environments Relies on SIL 2 Rated Flow Switch/Monitor

San Marcos, CA — Engineers tasked with ensuring the continuous verification of gas or liquid analyzer performance in demanding industries and/or hazardous environments where safety, product quality and productivity are essential will find the advanced FS10A analyzer flow switch/monitor from Fluid Components International (FCI) provides the required dependability, accuracy and responsiveness necessary to meet their requirements.



FCI's Model FS10A is a sophisticated universal flow switch and monitor specifically designed for gas and liquid process analyzer sampling systems. The FS10A is a fast responding, highly repeatable sensor, which installs easily into a standard tube tee fitting or the SP76 (NeSSI) modular manifold.

Close control of many toxic and/or combustible gases and liquids utilized in a wide range of industries require continuous monitoring to ensure their safe, effective use to protect employees and assure end-product quality. Validation of uninterrupted flow to the analyzer is essential to alert system operators should the analyzer fail to measure or operate for a range of reasons, including blocked sample tubes, stuck valves or any other number of potential issues.

The FS10A analyzer flow switch/monitor utilizes proven thermal dispersion flow measurement technology with FCI's proprietary equal mass sensing to achieve outstanding sensitivity and repeatability. The instrument's wetted parts are superior corrosion-resistant 316L stainless steel with Hastelloy C-22 sensor tips. The sensor element has no moving parts to foul, clog or maintain, which ensures continuous reliability and virtually no maintenance. There are no cavities, orifices or dead-legs to trap or contaminate samples, which preserves sample integrity and faster sampling times.

The Model FS10A instrument's electronics are packaged in a rugged, fully-sealed, stainless steel housing that provides exceptional protection and long-life under all process conditions with virtually no maintenance. The electronics can be integral mounted with the sensor element, resulting in uni-body, self-contained unit or the electronics can be remote mounted away from the sensor element.

The instrument's remote configuration is Div 1/Zone 1 FM approved for hazardous environments. The remote configuration is useful when the sensor's installation area is subjected to high temperatures or

for mounting directly to the front panel of the analyzer placing its display in a more convenient location for technician viewing.

The FS10A analyzer flow switch/monitor is designed with an easy-to-read top-mounted, flow rate monitoring LED array for at-a-glance visual indication of operational status of proper flow rate to the analyzer or sampling system, or that an alarm/trip point has occurred. The flow switch's set-point is conveniently user settable via two push-buttons accessible at the top of the unit or via the RS232C I/O port.

The Model FS10A is ideal for use with nearly all types of process and emissions sampling systems, including gas chromatographs (GCs), mass spectrometers, optical spectrometers, photometers and others. Standard configurations will accommodate standard 1/8, 1/4, 3/8 and 1/2 inch tubing as well as the SP76 adapter (ANSI/ISA Standard - 76.00.02-2002, Modular Component Interfaces for Surface-Mount Fluid Distribution Components).

Depending on the tube size, the FS10A analyzer flow switch/monitor operates over a wide flow range in air/gas; from 0.02 SCFH to 200 SCFH [10 cc/min to 100,000 cc/min], and in water/liquids; from 0.01 GPH to 12.00 GPH [0.70 cc/min to 750.00 cc/min]. It accommodates wide turndowns with a ratio up to 100:1.

The Model FS10A's outputs include a 1A relay settable for NO or NC operation and with user-settable for failsafe, hysteresis and/or time delay, and a 4-20mA analog output for trending.

In addition to its SIL 2 rating, the Model FS10A features global hazardous area operations approvals including: ATEX, CE, CRN, EAC/TR CU, FM, FMc and IECEx for use in Div 2/Zone 2 environments.

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, level and temperature of air, gases, and liquids.