

Universal FS10A Analyzer Flow Switch/Monitor With SP76 Adapter for NeSSI Compliant Analyzer Systems

Ideal for Gas or Liquid Analyzer Sampling Systems in Oil/Gas Refining, Chemical Processing, Stack Monitoring, Advanced Materials, Pharmaceuticals Semiconductor Fabrication

San Marcos, CA — Process control system designers and plant engineers in search of a compact flow switch/monitor that can be easily incorporated into gas and liquid process analyzer sampling systems will find that the Model FS10A analyzer flow switch/monitor from Fluid Components International (FCI) features a convenient SP76 adapter that supports and/or integrates easily with NeSSI™ standard compliant hardware.



FCI's SP76 adapter for NeSSI modular manifolds allows the FS10A to be installed into a standardized mechanical platform for analyzers and sensors. The NeSSI (New Sampling/Sensor Initiative) has been evolving for two decades-plus as an industry-driven effort to define and promote analyzer and sensor standardization.

In NeSSI compliant devices, sample system components such as the FS10A can be mounted onto a standard fluidic interface for modular surface-mount components, which features standard wiring and communications interfaces and a standard platform for micro analytics. The FS10A conforms to NeSSI Generation I and is prepped for Generation II and III compliance. It requires only a single 1.5-x-1.5-inch SP76 base.

The breakthrough FS10A analyzer flow switch/monitor represents the next-generation, lowest-cost solution for continuously verifying flows within liquid or gas process analyzer sampling systems. It is a small, lightweight instrument featuring superior low flow sensitivity, a choice of electronic outputs and a no-moving parts design that ensures maximum reliability.

Analyzer end-users and system integrators will find the FS10A's advanced electronics and thermal dispersion flow sensing technology provide a superior overall solution to sampling system flow assurance. It is ideally suited for continuous monitoring of analyzer sample flows to provide the highest integrity process analysis without interruption.

Featuring a precision flow sensor element with no moving parts to foul, clog or maintain, the FS10A ensures continuous reliability and requires virtually no maintenance. Unlike capillary bypass flow meters and controllers, the FS10A has no cavities, orifices or dead- legs that trap fluids and lead to contaminated

samples, which preserves sample integrity and provides faster system sampling times. The instrument's wetted parts are corrosion-resistant 316L stainless steel with Hastelloy-C sensor tips.

The FS10A analyzer flow switch/monitor can be used with nearly all types of process and emissions sampling systems, including: gas chromatographs (GCs), mass spectrometers, optical spectrometers, photometers and others. The FS10A analyzer flow switch fits in a standard 0.25 inch tube tee as well as the SP76 adapter (ANSI/ISA Standard 76.00.02-2002, Modular Component Interfaces for Surface-Mount Fluid Distribution Components).

Operating over a wide flow range in multiple configurations, the FS10A features a flow range in air from 0.1 SCFH to 40 SCFH [50 cc/min to 20,000 cc/min], and a flow range in water from 0.001 GPM to 0.03 GPM [4 cc/min to 100 cc/min]. It accommodates wide turndowns with a ratio up to 100:1. A single model can be used for most gas and liquid applications with a simple in-field set up.

The FS10A is designed with a fully-sealed aluminum housing to protect electronics in harsh plant environments. The electronics can be integral mounted with the sensor element in a uni-body configuration or remotely mounted for easy front panel display viewing.

The FS10A features a top-mounted, ten (10) LED array and two pressure-sensitive button touch controls. The LED display provides users visibility of flow rate trend, alarm status and power on/off. The flow switch's set-up and setpoint values can be changed via the two push-buttons or via its standard RS232C serial interface.

The FS10A is available with a choice of electronic outputs. The switch output can be either an open collector (transistor) or a 1A relay settable for NO or NC operation. The switch settings are user programmable for trip control of hysteresis and time delay. An optional 4-20 mA output is available for trending, which is field settable to represent the flow rate span.

The SIL rated FS10A features multiple agency approvals including FM and FMc: Nonincendive, Class I, Division 2 Groups A, B, C, D; Class II, Division 2 Groups E, F, G; Class III T4@Ta=71°C Type 4X. It has also ATEX and IECEx approval, along with EAC/TR CU.

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