

Continuous Flow Verification for Heavy-Duty Processes and Plants With FCI FLT93F Switch

*Available for Service Up to -100 to +500° F (-73 to +260°C)
and Pressures Up To 3500 psig [240 bar(g)]*

San Marcos, CA — Engineers challenged by demanding high-temperature, high-pressure processes that require the continuous verification of flow and/or control of air, gases and liquids will find the advanced FLT93F FlexSwitch from Fluid Components International (FCI) offers them a precision, rugged and reliable solution with full global approvals to maintain a safe work environment.

The insertion-style FLT93F FlexSwitch for flow, level and temperature monitoring and control represents a true technological breakthrough in thermal measurement technology. FCI is the only thermal manufacturer providing temperature compensation to ensure set point accuracy for process temperatures that vary up to $\pm 100^{\circ}\text{F}$ [$37,7^{\circ}\text{C}$], which ensures performance that you can count on.

The SIL-2 rated FLT93F FlexSwitch is designed for fast response to perform an extensive list of critical air/gas flow application tasks that meet the needs of a wide range of process and manufacturing industries. Highly accurate, the FLT93F is ideal for use in ventilation air flow, purge gas assurance, gas analyzers and sampling systems, inert gas tank blanketing, hydrocarbon gas flows, high-pressure relief valve monitoring and much more.

Featuring FCI's advanced thermal sensing technology, the Model FLT93F combines a highly accurate, all-welded stainless steel sensing element with an advanced, user-friendly FlexSwitch control circuit. One standardized, field-configurable FlexSwitch control circuit satisfies virtually any combination of flow, level and temperature application requirements.

The dependable FLT93F FlexSwitch offers a fast response time as low as 0.5 seconds and is suitable for small process connections in lines available in standard lengths from 1.2 inches to 18 inches [30 mm to 457 mm] and in custom-specified lengths as well. This instrument is easily field-configurable or factory preset, providing unparalleled flexibility, accuracy and stability for all multi-process sensing and switching requirements.

The FLT93F FlexSwitch is highly accurate in continuous air/gas flow verification applications and in liquids too. Air/gas service accuracy is: $\pm 0.5\%$ reading or ± 2 sfps [$\pm 0,06$ nmps] — whichever is higher.



In liquids, accuracy is $\pm 0.5\%$ reading or ± 0.04 fps [$\pm 0,012$ mps] — whichever is higher. For temperature service, accuracy is $\pm 2^\circ\text{F}$ [$\pm 1^\circ\text{C}$] with repeatability of $\pm 1^\circ\text{F}$ [$\pm 0,6^\circ\text{C}$].

The versatile FLT93F FlexSwitch operates over a wide setpoint range. In air/gas, the setpoint range is 0.25 sfps to 120 sfps [0,08 smps to 37 smps] at standard conditions of 70°F [$21,1^\circ\text{C}$] and 14.7 psia [1,013 bar(g)]. The setpoint range in water-based liquids is: 0.01 fps to 3.0 fps [0,003 mps to 0,9 mps], and in hydrocarbon-based liquids it is 0.01 fps to 5.0 fps [0,003 mps to 1,5 mps].

The FLT93F is available with either integral electronics or remote electronics for use in hazardous areas where the transmitter electronics must be separated from the instrument. The standard transmitter features dual SPDT or single DPDT relays that are field configurable and 6-amp resistive at 115 Vac, 240 Vac or 24 Vdc.

The standard enclosure for the FLT93F FlexSwitch comes in aluminum, which is power coated, with a single one-inch NPT conduit port. The weather-resistant enclosure is rated NEMA 4X/IP67, Ex approved, and suitable for outdoor use. Optionally available are either a stainless steel enclosure or a dual-conduit port aluminum enclosure with 0.5-inch NPT or M20 metric conduit ports.

Global agency approvals and compliances for the Model FLT93F FlexSwitch include: FM, FMc, ATEX, IECEx, EAC/TR CU, Inmetro. CE Marking. PED and CRN. It also meets EC directives for EMC and LVD. The probe complies with Canadian Electrical code requirements of ANSI/ISA 12.27.01-2011 as a single seal device.

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.