

## **Small Line Process Flow Meter Delivers Big Advantages In Demanding Applications**

*Biogas Recovery, Food/Chem/Pharm Process Lines, Boilers, Burners*



**San Marcos, CA**—Process and plant engineers will find the [ST98L In-Line Mass Flow Meter](#) from [Fluid Components International \(FCI\)](#) is the reliable flow measurement solution for virtually any air or gas mixture in small process line sizes from 1 to 2 inches [25mm to 50mm] where superior accuracy is necessary in demanding industrial environments.

With the ST98L In-Line Flow Meter, FCI combines precision thermal dispersion mass flow sensing and advanced electronics with exacting fluid calibration and a choice of rugged, industrial enclosures. The result is superior air/gas measurement at an economical instrument low lifecycle cost, which is highly repeatable over a long service life with virtually no maintenance.

The ST98L In-Line Flow Meter comes in two different flow element styles that are application-specific. Select the –F style element for applications in dry, clean air/gases with fluid temperatures up to 350°F [177°C]. The –F design incorporates FCI's unique equal mass sensor in smaller diameter thermowells for faster response time and improved repeatability in processes with dynamic temperature swings.

The –S style flow element is suitable for demanding applications involving dirty or erosive fluids, high moisture content gas or a pulsating flow. The –S element features more robust, thicker wall thermowells and an unshrouded equal mass sensor element that provides a noise-filtered response, extended erosion resistance and easier cleaning. In wastewater treatment digesters or landfill gas recovery with wet compressed air or gas with erosive particulates, the –S sensor element provides excellent accuracy.

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With its highly reliable thermal mass sensing element, the advanced ST98L In-Line Mass Flow Meter from FCI delivers precision gas flow rate, totalized flow and temperature measurement. It features high accuracy to  $\pm 1\%$  of reading, 0.5% of full scale. Exceptionally consistent, the ST98L offers repeatability to  $\pm 0.5\%$  of reading and is temperature-compensated for accurate measurement under variable environments.

The ST98L Flow Meter operates over a flow range from 0.0062 to 1850 SCFM (0.01 to 3,140 Nm<sup>3</sup>/h). It features a turndown ratio that is factory preset from 10:1 up to 100:1 within the calibrated flow range and operates at pressures up to 250 psig [17 bar (g)].

The ST98L's thermal mass sensing element is comprised of two all-welded 316L stainless steel thermowells that protect two matched platinum precision resistance temperature detectors (RTDs). With a highly reliable no-moving parts design, one RTD is heated relative to the reference RTD, and the temperature difference between the two is proportional to the gas mass flow rate.

The ST98L's transmitter features robust, microprocessor-based electronics. The transmitter can be specified as integral with the sensor or remote mounted up to 1000 feet [350m] away. Enclosures are available in multiple configurations, with ratings for hazardous environments that include NEMA Type 4X (IP66), Division 1 Groups B, C, D, E, F, G.

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.

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