

Compact Thermal Flow Meter Accurately Measures Gas For Dosing, Injection & Other Applications

Ideal for Ammonia, Argon, Carbon Dioxide, Chlorine, Ethane, Fluorine Nitrogen, Ozone, Refrigerants, Sulfur Dioxide and Many More

San Marcos, CA — Engineers in a wide range of industries responsible for gas dosing and gas injection in small line batch and continuous processes will benefit from the dependable thermal dispersion sensing technology employed by the versatile [ST75 Series Air/Gas Flow Meter](#) from [Fluid Components International \(FCI\)](#).

The compact ST75 Series Air/Gas Flow Meter, which is available in both insertion and inline configurations, is the ideal flow measurement solution for gas dosing and injection in tight, crowded equipment areas. Gases are dosed or injected in a wide range of industries including: advanced materials, biomedical, electronics, food/beverage, mining/metals, oil/gas production, petrochemical refining, plastics, pharmaceuticals, pulp/paper, water treatment and many more.

All gas dosing and injection processes have one important thing in common: the gas flow rate and the totalized flow of gas must be measured with high accuracy and repeatability for batch quality control and low cost operational efficiency. The precision ST75 Flow Meter's solid-state thermal dispersion mass flow sensing element with platinum RTD's is housed in equal mass thermowells for years of trouble-free service. It measures virtually any gas or gas mixture, and it can be calibrated to measure gases over a flow range from 0.04 to 559 SCFM (0.07 to 950 NCMH), depending on line size, which is useful in low-flow applications requiring small doses.

When used in variable demand cycles due to small batch or other continuous process production requirements, the ST75 Flow Meter is factory preset to 100:1 turndowns. It features highly dependable accuracy to $\pm 1\%$ of reading with $\pm 0.5\%$ repeatability in line sizes from 0.25 to 2 inches (6 to 51 mm). Engineers can depend on it for precise flow control of gases to ensure high quality end-products from batch or continuous processes.

The ST75 Flow Meter's flow element features a rugged, no-moving parts design for superior reliability. This unique design provides extra confidence where process safety is a big concern with other types of meter technologies, which rely on movable parts that can break over time in high turndown applications. These incidents can send dangerous meter debris crashing through pipes conveying hazardous combustible gases.



The Model ST75 Flow Meters are designed with a choice of mounting configurations. They feature a full digital display and are also available with optional transmitter remote mounting capabilities for hazardous plant environments. The remote transmitter can be mounted up to 100 feet (30 meters) away from its thermal mass flow sensor in piping or ductwork and connected via two 0.50-inch FNPT or M conduit connections.

For tube service in a 0.25 inch line, the compact ST75 Flow Meter's round transmitter is 3.28 inches (83 mm) wide and stands only 5.7 (144,8 mm) above the centerline of the flow tube. Its relatively small footprint makes it simpler to add measuring points where close control of the process is desirable, such as in gas dosing and gas injection applications.

Where crowded equipment layouts exist and compromise straight pipe runs for accurate flow measurement with other technologies, the Model ST75AV Meter features a built-in Vortab flow conditioner. Nearby pumps and valves that affect the accuracy of other meter technologies are no problem with the ST75 Meter's built-in Vortab Flow Conditioners, which create a regular smooth flow profile in the pipe for dependable flow measurement.

The ST75 Flow Meter's fully scalable dual 4-20mA standard outputs are user assignable to flow rate and/or temperature and a 0-1kHz pulse output of total flow. Two-way HART bus communications are available with the Models ST75A and ST75AV. The instrument can be ordered for input power with either 18 to 36 Vdc or 85 to 265 Vac

The ST75 Flow Meter withstands process temperatures from 0 to 250°F (-18 to 121°C). It operates at pressures up to 240 psig [16.5 bar (g)] with a standard t-fitting (NPT female) process connection. With a tube process connection, the meter withstands 600 psig [41 bar (g)].

The meter's electronics are housed in rugged, IP67 rated enclosure with dual conduit ports in either NPT or M20 threading. The models ST75A and ST75AV include HART or Modbus as well as NAMUR compliant 4-20 mA outputs and SIL compliance rating. The complete instrument carries global Ex agency approvals for Division I/Zone 1 installations.

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.