

## Compact ST75 Thermal Mass Flow Meter Measures Natural Gas, CO<sub>2</sub> and Waste Gases in Breweries

*Flow Data for Heating, Balancing, Kegging, Bottling, and Pollution Control*

**San Marcos, CA** — The versatile, green-friendly ST75 air/gas flow meter from Fluid Components International (FCI) accurately and reliably measures natural gas, carbon dioxide (CO<sub>2</sub>), and mixed waste gases in small line sizes to optimize brewing fermentation processes, product quality and overall plant efficiency.

Today's modern breweries not only produce a fantastic product, but they also focus on reducing their carbon footprint by tightly controlling natural gas usage, residual CO<sub>2</sub> levels and mixed waste gases. From fermentation vessel steam heating to product kegging or bottling to CO<sub>2</sub> recovery for co-gen power or combined heat and power (CHP) systems to flaring, the emphasis is on product quality and protecting the environment. Accurate gas flow measurement helps breweries keep their customers happy while controlling costs and meeting environmental compliance requirements.

FCI's ST75 Series flow meter helps breweries optimize their complex fermentation tank steam heating processes by accurately measuring the ratio of boiler burner fuel gas to air for efficient combustion. The CO<sub>2</sub> gas that is naturally produced during the brewing process and any additional CO<sub>2</sub> gas necessary for finishing the beer require accurate measurement within tight tolerances. Thermal flow meters such as the ST75 flow meter with its thermal dispersion technology are the perfect solution in small line sizes from 0.25 inches to 2.0 inches [6 mm to 51 mm], offering precision performance, virtually no maintenance, long life and a low cost of ownership.

The ST75 flow meter is equally well suited for low flow and higher flow operations in industrial applications and operates over a wide flow range, from 0.01 SCFM to 559 SCFM [0.01 NCMH to 950 NCMH] depending on line size. For variable process conditions, the ST75 is factory preset to a wide turndown range at 10:1 to 100:1.

With built-in temperature compensation, the ST75 flow meter maintains consistent performance in rugged, hot industrial process environments. It features accuracy to  $\pm 2\%$  of reading with  $\pm 0.5\%$  repeatability over varying process temperatures in line sizes from 0.25 inches to 2 inches [6 mm to 51 mm]. With a Vortab flow conditioner added as a spool piece, the Models ST75V or ST75AV are ideal for installations with limited straight-run and/or for operating in transitional flow ranges with accuracy of  $\pm 1\%$  reading,  $\pm 0.5\%$  full scale.



The ST75 flow meter's precision flow element has a no-moving parts design that employs platinum RTD sensors embedded in equal mass thermowells with microprocessor electronics calibrated to laboratory standards for a wide range of clean and dirty gases. This meter's advanced sensor design offers triple outputs: flow rate, temperature and totalized flows. It is available in either an in-line or insertion configuration.

Ideal for fermentation vessels or tanks, ovens, heat chambers, and furnaces, the ST75 flow meter features remote mounting capabilities for hazardous or crowded plant environments. The remote mount transmitter, which includes a full digital display, can be mounted up to 50 feet [15 meters] away from its thermal mass flow sensor in the process piping and connected via two 0.50-inch FNPT or M conduit connections.

The ST75 flow meter's fully scalable dual 4-20 mA standard outputs are user assignable to flow rate and/or temperature and a 0-1 kHz pulse output of total flow. The instrument can be ordered for input power with either 18 Vdc to 36 Vdc or 85 Vac to 265 Vac, with or without a built-in LCD digital display.

Offering direct-flow measurement for higher performance at a lower cost with proven thermal dispersion technology, the ST75 flow meter eliminates the need for additional pressure and temperature sensors, flow computers, or other devices that are required with orifice plates, Venturis, vortex shedding, and other volumetric meters. The ST75 flow meter also requires virtually no maintenance for both a low installed and low life-cycle cost.

The FM and CSA approved ST75 flow meter is enclosed in a rugged, all-metal, dust and water resistant NEMA Type 4X (IP66) rated package designed for Class 1, Div 1 hazardous area installations and includes a rugged sensing element constructed with all welded 316 stainless steel and Hastelloy-C tips. ATEX/IEC approvals include: Zone 1, II 2 G Ex d IIC T6 . . . T3; II 2 D Ex tD A21, IP67 T90° . . . T300°.

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.