

Precision Flow Meter Optimizes Air Flow Control For Operation of Industrial Blowers and Dryers

*Ideal for the Efficient Production of Chemicals, Ceramics, Food,
Minerals, Metals and Pharmaceuticals*



San Marcos, CA — Engineers responsible for the efficient operation of industrial air blowers and dryers used in raw materials production will find the [ST50 Mass Flow Meter Series](#) from [Fluid Components International \(FCI\)](#) provides precision measurement of air to increase the efficiency of their systems.

Industrial air blowers and dryers are necessary in a wide range of materials process control applications.

They are used extensively in the production of bulk catalysts, flavors, fillers, granules, particles, polymers, powders—generally anytime that raw materials must be dried to remove excess moisture content that would interfere with their production or quality.

The installation of ST50 Series Flow Meters in the process control loops of industrial air blower and dryer systems provides highly accurate hot air flow rate monitoring. The use of mass flow meters ensures precise rate of flow measurement and totalized flow measurement for zone control and overall system operational efficiency.

Relying on FCI's highly accurate thermal dispersion mass flow sensing technology, the ST50 Flow meters provide accurate and repeatable direct mass flow measurement at a lower cost. With the ST50 meter, there is no need for the temperature sensors, flow computers or the other devices required with orifice plates, Venturis, Vortex shedding and other flow meters. The ST50's unique design also provides built-in temperature compensation for reliable measurement over a wide temperature range with almost no pressure-drop.

Offering a wide flow range, the ST50 Flow Meter measures air, compressed air or nitrogen from 0.75 SFPS to 400 SFPS [0.23 MPS to 122 MPS] in line sizes from 2 inches to 24 inches [51 mm to 610 mm]. Flow meter accuracy is up to $\pm 1\%$ of reading, $\pm 0.5\%$ of full scale, with repeatability of $\pm 0.5\%$ of reading. The meter operates at temperatures from up to 0°F to 250°F [-18°F to 121°C]. Turndown ratio is up to 100:1.

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The flow range of the ST50 Series can be field-configured in either standard mass flow or volumetric engineering units. It features dual analog outputs: two 4-20 mA outputs, which are field assignable to flow rate or temperature and an RS232C I/O port. A 0-500 Hz pulse output for totalized flow is also available as an option. All configurations are easily user set in the field with any standard laptop to the RS232C port and/or via the wireless IR link/PDA.

The ST50 meter's rugged stainless steel sensing element with Hastelloy-C tips is designed for endurance in heavy duty plant, outdoor and field installation conditions. Its electronics are housed in an all-aluminum, epoxy-coated enclosure that is NEMA 4X (IP66) rated. The entire ST50 instrument features FM/CSA agency approvals for Class 1, Div 2, Groups A, B, C and D; ATEX, GOST-R, CPA, BelGIM (Belrus), CE Marketing, CRN and PED.

There are two process connections options available for the ST50 meter: 1/2-inch MNPT or 3/4-inch MNPT with a stainless steel or Teflon ferrule. It is available in three field adjustable U-length probes: 1 inch to 6 inches [25 mm to 152 mm], 1 inch to 2 inches [25 mm to 305 mm] and 1-18 inches [25 mm to 457 mm] for pipe sizes 2 inches to 24 inches [51 mm to 610 mm]. Instrument powering options include both DC [18 Vdc to 36 Vdc] and AC [85 Vac to 265 Vac]. The ST50 comes with a one year standard warranty.

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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