

FCI Announces Industry's Broadest Selection of Thermal Flow Meters with HART

Ideal for Large Industrial Plant Distributed Control Systems (DCS)



San Marcos, CA — Process and plant engineers who need a precision air/gas flow measurement solution coupled with industry standard digital bus communication capabilities will find that [Fluid Components International \(FCI\)](#) now offers the industry's widest selection of [Thermal Mass Flow Meters](#) available with the [HART® Protocol](#) and other communication options that are designed to serve a broad range of industries and applications.

FCI's ST51, ST75, ST98, ST100 and MT100 Thermal Mass Flow Meters, including 12 models, are all available with the HART communications to provide an economical yet rugged solution to measuring air or gases in process and plant applications. They represent the next generation in thermal mass flow meter design, including surface-mount, lead-free RoHS compliant electronics with highly accurate, repeatable all-welded, equal-mass flow sensors.

FCI's HART digital bus communication and its associated device driver (DD) have been tested and certified by the Fieldcomm (HART) Group to meet its standards. With over 30 million supported field instruments installed worldwide, HART technology offers a reliable solution for leveraging benefits of intelligent flow meters and other devices through standardized digital communication.

All of FCI's thermal flow meter series product families are designed with specific industries, applications and industrial environments in mind. FCI's thermal flow meters with HART communications support the production of food and beverages, chemicals, electric power generation, mining and metals, pharmaceuticals, pulp and paper, oil/gas production and refining, pollution monitoring, solid waste, water/wastewater treatment and more.

The HART (highway addressable remote transducer) Protocol offers FCI thermal flow meter users a standard global communications protocol, providing reliable two-way digital communication between intelligent field instruments and host systems without disturbing the 4-20mA analog signal. HART communications permit remote process variable interrogation, cyclical access to process data, parameter setting and diagnostics.

In addition to HART bus communications, FCI thermal mass flow meters feature standard outputs that are dual 4-20 mA, which meet NAMUR NE43 and features a 500 Hz

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pulse. The electronics are housed in a rugged IP67 rated, dual-cable port transmitter enclosure available in aluminum or a new stainless steel version. The transmitter can be mounted directly to the flow sensor or remotely mounted up to 100 feet (30 meters) away.

The transmitter enclosures for FCI's product line of thermal mass flow meters are among the most rugged and tested, and carry global agency approvals to ensure longest service life and safe operation in the most demanding process and plant applications. FCI thermal flow meters have agency approvals from FM, FMc/CSA, ATEX, IECEx, EAC, NEPSI, Inmetro, and industry or country specific pedigrees such as SIL (IEC 61508), CRN, PED, QAL 1 and CEMS.

Their thermal mass flow sensing elements feature precision, platinum RTDs in small diameter, all-welded thermowells made of 316L stainless steel and Hastelloy-C tips for superior accuracy, fast response and long-term reliability. They are direct mass flow measuring instruments and require no additional temperature or pressure sensors or flow computer to infer the mass flow rate of the process media, which reduces the total cost of process flow measurement including installation and maintenance over the long life of these meters.

ST51 Series Air/Gas Flow Meter

The ST51 flow meters are an insertion-style flow meter for use in pipe diameters from 2.5 to 24 inches [63 to 610 mm]. They are designed for the flow measurement of methane-based gases such as biogas, digester gas, landfill gas, natural gas, and for air, compressed air or nitrogen. It is easily connected into the pipe via a 0.5 or 0.75 inch NPT compression fitting.

ST75 Series Air/Gas Flow Meters

The ST75 flow meters are in-line (spool-piece) devices designed for applications in smaller pipe diameters from 0.25 to 2 inches, [6 to 51 mm]. They measure flow rate and totalized flow of air, compressed air, inert gases as well as natural gas, biogas and other hydrocarbon-based gases which makes them ideal for burner-boiler fuel and air lines, industrial furnaces and kilns, chiller air flow metering, and dosing and gas injection.

ST98 Series Air/Gas Flow Meters

The ST98 insertion-style mass flow meters are the flow measurement solution for virtually any gas or gas mixture in line sizes from 2 inches to 42 inches [50 mm to 1066 mm]. They combine superior, equal mass thermal-dispersion flow sensing elements and precision electronics with exacting actual fluid calibration and a choice of rugged, industrial enclosures to deliver accurate, highly repeatable flow measurement and long lasting service for the most demanding processes.

ST100 Series Air/Gas Flow Meters

The advanced ST100 flow meters are a next-gen thermal dispersion technology air/ gas flow instrument that combines the industry's most feature- and function- rich electronics with the most

advanced flow sensors to achieve a state-of-the-science flow measurement solution. Whether the output requirement is 4-20 mA analog, frequency/pulse, or digital bus communications such as HART, Foundation fieldbus, PROFIBUS, or Modbus, there is an ST100 meter solution.

MT100 Series Multipoint Air/Gas Flow Meters

The MT100 multipoint flow meters are an insertion type thermal flow meter specifically designed for large diameter pipes, such as stacks and flues, and large rectangular ducts, such as air feed intakes and HVAC. These large pipe/duct applications are difficult for ordinary flow meters because of distorted flow profiles and lack of straight-run that can lead to inaccurate and non-repeatable flow measurement.

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.

Contact: FCI: 1755 La Costa Meadows Dr, San Marcos, CA 92078
Web: www.fluidcomponents.com Tel: 800-854-1993 Tel: 760-744-6950 Fax: 760-736-6250
Email: FCImarcom@fluidcomponents.com