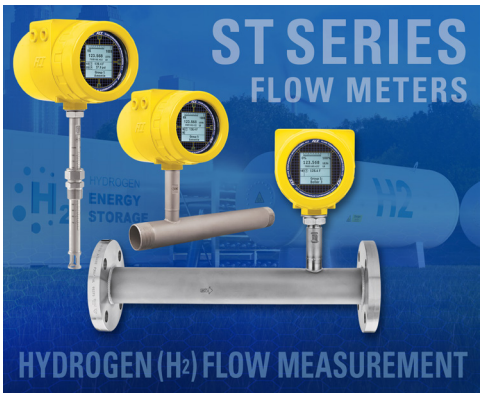
FLUID COMPONENTS INTERNATIONAL LLC
A PST BRAND

ST Series Thermal Flow Meters Excel in Challenging Hydrogen (H2) Measurement Applications

Ideal in Water Electrolysis, Carbon Capture, Methane Steam Reforming, Gas Pyrolysis, Coal Gasification, Nuclear and Well Fracking



San Marcos, CA — Engineers and plant operators responsible for producing, using, dispensing, or distributing hydrogen (H2) gas will find accurate and rugged flow meter solutions in the ST Series Thermal Flow Meters from Fluid Components International (FCI). These precision H2 calibrated flow meters provide a range of products for any pipe diameter and virtually any installation conditions and require no routine maintenance.

Hydrogen is today a focus of global attention as a renewable energy fuel resource. Production processes from fossil sources, biomass and waste and H2O-splitting are capturing worldwide investor attention as brown, green, gray, and blue alternative fuels. It is also a key gas used in ammonia manufacturing in the agricultural chemicals industry, methanol production and other processes. Regardless of the source, accurate, repeatable and reliable flow meters are a critical component in the processes.

Hydrogen-calibrated thermal mass flow meters are well suited to meet the conditions of these applications. Thermal mass flow meters work based on the principles of heat transfer. H2 has a very high heat transfer rate and to measure it with high accuracy and repeatability, a thermal flow meter should be calibrated in actual H2. Applying theoretical gas equivalency equations to “correct” readings for H2 are simply inadequate and ineffective for this gas.

The ST Series thermal flow meters from FCI are calibrated under customer installation conditions in actual hydrogen to achieve superior installed accuracy and repeatability in their intended application. They are direct mass flow measuring and inherently multivariable providing both flow and temperature outputs. Thermal mass flow meters with their no moving parts design also virtually eliminate wear, breakage and maintenance. The ST series has a wide selection of process connections, including compression fittings, NPT male and female threaded connections, flanges, ball valves, hot taps and more to ensure installation site compatibility.

FCI’s ST family offers solutions from small, compact meters with basic 4-20mA analog output to feature-enhanced versions with multiple 4-20mA outputs, digital bus communications such as HART, Modbus, Foundation Fieldbus, and Profibus, in-situ calibration, self-checks, on-board data logging, and more. Furthermore, all FCI ST Series H2 flow meters are direct mass flow measuring, carry global agency

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approvals for installation in Div.1/Zone 1 environments, and offer superior ruggedness and long-life with NEMA 4X/IP 67 rated low-copper content aluminum or 316 stainless steel enclosures.

These flow meters with standard turndowns of 100:1 and flow ranges from 0.25 to 1000 SFPS (0.07 NMPS to 305 NMPS) ensure their application versatility. The ST's transmitter/electronics can be integrally mounted with the flow body or may be remote mounted to 1000 feet (305m) away. They are available in either DC or AC powered versions. Their readout/display options include basic flow rate and totalizer to a best-in-class multivariable digital/graphic backlighted LCD with FCI's exclusive through-the-glass activated 4-button array.

In crowded equipment hydrogen applications with limited straight-runs and/or for operating in transitional flow ranges that can adversely affect accuracy and repeatability, ST Series Flow Meters are also optionally available with and calibration-matched to Vortab® Flow Conditioners to ensure installed performance.

FCI solves flow and level measurement applications with advanced thermal dispersion technologies. With 60 years' experience and the largest installed base of thermal flow meters, flow switches and level switches, count on FCI to know your application and have the solutions.

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