

ST80 Thermal Flow Meter Now With PROFIBUS DP Puts Air/Gas Flow Measurement on the Bus

Water Treatment, Wastewater Treatment, Chemical, Electric Power, Oil/Gas

San Marcos, CA — Process measurement and control engineers utilizing PROFIBUS digital bus communications in their operations can now solve air and gas flow applications with the ST80 Series thermal flow meter from Fluid Components International (FCI). The ST80 flow meter has been expanded to also provide a new, PROFIBUS DP solution along with its existing PROFIBUS PA capability.

This added PROFIBUS DP protocol expands communications options between a plant-wide PROFIBUS communications system for air and gas flow metering measurement and control. The ST80 thermal mass flow meter can now be configured as either a field instrument PA device or a system RS-485-based DP device. The ST80 flow meter provides air/gas flow rate, totalized flow, temperature and instrument health diagnostics over the PROFIBUS digital bus. Furthermore, system engineers and integrators can be confident in selecting the ST80 as it has been thoroughly evaluated and certified by the PROFIBUS organization to ensure its seamless and trouble-free integration with PROFIBUS control systems.

In addition to PROFIBUS I/O, the ST80 flow meter also includes standard output options of dual 4-20 mA analog outputs (NAMUR NE 43 compliant), HART (Version 7) I/O, and Modbus RTU. Simply, an ST80 flow meter is adaptive to any current or future control strategy. The ST80 Series combines ultra-reliable, feature-rich electronics with the industry's most extensive selection of application-matched flow sensors and best-in-class calibration for use in a wide range of demanding gas flow meter applications. With its no-moving parts thermal dispersion flow sensor, robust transmitter enclosure and the industry's broadest selection of process connections, the ST80 provides application compatibility with ease of installation, along with virtually no routine maintenance and exceptionally long service life.

Designed with an optional best-in-class, backlit information LCD, the ST80 Flow Meter provides digital and bar graph readouts of process flow rate and temperature, totalized flow, alarm conditions, diagnostics feedback and a user defined label field is also available. This easy-to-read display allows plant engineers and technicians to see and access flow data and instrument health information in the field with confidence and to quickly make decisions on the spot.



The ST80 Series meters are suitable for pipe diameters from 1 inch to 99 inches [25mm to 2500mm] and air/gas temperatures up to 850 °F [454 °C]. They feature accuracy of $\pm 1\%$ of reading, $\pm 0.5\%$ of full scale and repeatability of $\pm 0.5\%$ of reading with flow rates up to 1000 SFPS [305 NMPS] and 100:1 turndown. They are available for powering by either 85-265 AC or 24 DC. The ST80 Series feature FCI's patent-pending, innovative Adaptive-Sensor Technology (AST) thermal mass flow sensor drive technology which combines fast response, extended flow rates, low energy cost and extended flow element reliability.

The rugged transmitter enclosure for the ST80 Series is NEMA 4X/IP67 rated, selectable for NPT or metric conduit port threading and is available in both aluminum and stainless steel and can be remotely located up to 1000 feet [305 m] apart from the flow element. In addition the ST80 is SIL/IEC 61508 rated and carries full instrument Div.1/Zone 1 Ex hazardous location approvals of FM, FMc, ATEX, IECEx, NEPSI, and more. In addition to the products themselves, FCI can provide field service start-up assistance and expert integration of ST80 flow meters into PROFIBUS systems anywhere in the world.

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.