FLUID COMPONENTS INTERNATIONAL LLC

Cleaner Coal Electric Power Generation Plants Rely on Accurate Thermal Air/Gas Flow Meter

Ideal for Stack NOx Scrubbers Requiring Accurate Gas Flow Measurement in Electric Power Pollution Control & Monitoring Systems

San Marcos, CA — Engineers utilizing ammonia (NH3) at cleaner coal electric power plants requiring nitrous oxide (NOx) removal by pollution control systems will find the **ST100 Series Flow Meter** from **Fluid Components International (FCI)** provides accurate ammonia (NH3) gas measurement with superior repeatability under harsh operating conditions.

The ST100 Series Flow Meter allows electric generation power plant teams to optimize their selective catalytic reduction (SCR) system. This step improved performance while substantially reducing NH3 consumption and costs. This reliable meter, with its rugged thermal dispersion sensor head, provides a highly repeatable measurement solution to control vaporized NH3 in such applications. It is also suitable for use in ammonia production and/or fertilizer process plants.

Engineers at electric power plants experiencing problems with inconsistent measurement of the vaporized NH3 injected into their flue gas as a means to reduce NOx emissions will find the ST100 Series Flow Meter offers them a more accurate measurement solution. Some pollution control systems have utilized volumetric flow sensors in the past, which weren't well suited for controlling the NH3 gas injection system. Switching to a gas direct mass flow sensing ST100 Flow Meter, as opposed to volumetric measurement, solves these false readings issues.

The ST100 Flow Meter offers a standard wide flow turndown ratio of 100:1 (up to 1000:1 based on the application) to provide simple direct mass flow gas measurement over a wide flow range. The insertion style ST100A thermal flow meters are typically installed for clean coal electric power applications on the primary vaporized ammonia feed lines to the nozzle grid, and then the in-line style ST100AL thermal flow meters are also installed at each of the nozzle locations.

The ST100 Meter can be factory calibrated to measure virtually any popular process gas as well as mixed gases. The technology is suitable for use in wet and dirty gas applications, having no small ports prone to fouling. The basic insertion style air/gas meter features a thermal flow sensing element that measures flow from 0.25 up to 1000 SFPS (0.07 NMPS to 305 NMPS) with accuracy of ±0.75 percent of reading, ±0.5 percent of full scale. The basic in-line style meter is available for 2-inch and smaller line sizes.

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The ST100 Series Meter's transmitter is unsurpassed in meeting both a plant's current and future need for outputs, process information and communications. Whether the output required is traditional 4-20 mA analog, frequency/pulse or advanced digital bus communications such as HART, Modbus, PROFIBUS, or FOUNDATION Fieldbus, the ST100 Series will meet all major instrumentation integration needs. Its advanced bus communications are all third party certified and registered.

Developed with a graphical, multivariable backlit LCD display, the ST100 Series Meter brings new meaning to the term "process information". Its sophisticated readout continuously displays all process measurements and instrument status for easy on-site viewing by technicians, and it has the ability to query for service diagnostics via an integral, optical HMI that does not require declassification of hazardous areas.

Designed for extreme industrial process and plant conditions, the ST100 Meter can be used in service up to 850ºF (454ºC) and is available with both integral and remote (up to 1000 feet [300 meters]) electronics versions. The ST100 Meter is agency approved for hazardous environments, including the entire instrument, the transmitter and the rugged, NEMA 4X/IP67 rated enclosure.

Global approvals include: ATEX, CPA, CRN, EAC/TRU CU, FM, FMc, FDT, GOST, IECEx, Inmetro and NEPSI. Third party failure rate data per IEC 61508 is available that demonstrates suitability of the hardware architecture for SIL 1 (HFT=0) applications.

FCI solves flow and level measurement applications with advanced thermal dispersion technologies. With 50+ 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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