“Quad O” Compliant ST80 & ST100A Flow Meters Meet EPA Methane Reduction Requirements

Precision Thermal Air/Gas Flow Meters Feature Global Haz-Ex Approvals for Oil/Gas Industry

San Marcos, CA — Petrochemical engineers responsible for meeting new methane (CH4) reduction regulations from the U.S. Environmental Protection Agency (EPA) under “40 CFR Part 60 Subpart OOOO” will find that the **ST80** & **ST100A Gas Flow Meters** from **Fluid Components International (FCI)** meet the EPA’s accuracy requirements and feature global haz-Ex safety approvals for demanding flare gas and emission control systems.

According to the EPA, the Inflation Reduction Act, under Section 136 of the Clean Air Act, will provide new regulatory requirements to reduce CH4 emissions from the petroleum and natural gas industries through a Methane Emissions Reduction Program. This program includes financial and technical assistance that will eventually provide over $1 billion in aid designated to reduce CH4 emissions from the petroleum and natural gas sector.

The EPA is also now planning new oil/gas industry CH4 waste emission charges. The waste emissions charge will affect facilities reporting over 25,000 metric tons of carbon dioxide (CO2) equivalents per year. The charges will start at $900 per metric ton in 2024, $1,200 per ton in 2025 and $1,500 per ton for 2026 and beyond. They also require control devices to prevent the waste of saleable gas, while also reducing emissions.

FCI’s proven thermal dispersion, EPA Quad O compliant, ST80 Series and ST100A Series CH4 Flow Meters offer highly accurate and repeatable gas flow measurement in hazardous areas to assist in compliance with environmental mandates. They are direct mass flow measuring, producing flow rate and totalized flow output signals and readouts in pounds or tons (kg, tonne) of emitted gases for monitoring and reporting. Their sensitivity is capable of detecting even slight changes in flow, making them ideal for use in leak detection applications.

FCI’s versatile thermal mass gas flow meters are internationally deployed in air pollution monitoring and other industrial air/gas measurement and control applications across many different industries. These precision gas mass flow measurement instruments rely on FCI’s decades of innovative thermal dispersion sensing technology, as well as offering ease of installation, virtually no maintenance and a long-life that provides for an exceptionally low cost of ownership.

The ST80 and ST100A Series Flow Meters combine ultra-reliable, feature-rich electronics, and FCI

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innovations such as patented Adaptive Sensing Technology™ (AST™), for fast response and range-ability. They operate over a wide range: the insertion style measures flow from 0.25 to 1000 SFPS (0,07 to 305 NMPS); the inline meter measures flow from 0.0062 to 838 SCFM (0,01 to 1425 Nm3/h) with turndown ratios up to 1000:1.

The ST80 and ST100A transmitter's outputs are a match to existing plant DCS, PLC, SCADA, recorder, or alarm systems. Whether the output requirements are: traditional 4-20 mA analog or advanced digital bus communications such as HART, Foundation Fieldbus, PROFIBUS PA, PROFIBUS DP, or Modbus, these meters are compatible.

Then for local display, the Models ST80 and ST100A feature a graphical, backlit LCD that is unmatched in showing what's happening in the pipe. Flow rate, totalized flow, and temperature are continuously displayed in both a digital and bar graph presentation, while alarms and/or diagnostic messages will display as needed to alert operators. Their large screens and intuitive displays make it easy for field technicians to perform instrument set-up and continuously monitor the process data.

Essential for pollution monitoring applications, a unique in-situ calibration self-test feature is built-in standard with all ST80 and ST100A meters and distinguishes them from many others. There is no need to retract or remove the meter from the process piping or to suspend operations. This self-test feature initiates an electronic, three point calibration drift self-test. In the test mode, the meter automatically and sequentially substitutes three precision resistors into the measuring circuit and compares the resulting measurements against the same measurements at factory calibration. This calibration drift check feature can be initiated upon demand or scheduled to run automatically based on the operator's preference or local regulatory requirements.

The ST80 and ST100A meters generally require only a simple, single insertion point into a pipe or stack to install. Instruments are available for installation in line sizes from 0.25 to more than 100 inches. Furthermore, FCI's accuracies of ±1% reading, ±0.5% of full scale exceed the stated acceptable accuracy within the newest EPA regulations and reporting requirements.

FCI's precision factory calibrations of the ST80 and ST100A meters are matched to the user's actual installation application, conditions, and gas properties. FCI has extensive experience in producing high accuracy, highly repeatable flow meters for CH4, SF6, HFCs, CO2, and other gases as called out in EPA greenhouse gas reporting mandates affecting multiple industries.

FCI solves flow and level measurement applications with advanced thermal dispersion technologies. With 55+ 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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