FLUID COMPONENTS INTERNATIONAL LLC

Highly Reliable ST98 Flow Meter Measures Blended Waste and Natural Gases For Co-Gen Power

Ideal for Municipal Wastewater Treatment Plant Co-Gen Electric Systems

San Marcos, CA — Municipal wastewater treatment engineers will want to learn more about the advanced ST98 Air/Gas Flow Meter from Fluid Components International (FCI), which reliably measures the blended waste gas and natural gas necessary to keep co-gen electric power systems up and running.

Due to fluctuations in plant waste gas supply, seasonal temperature changes and other factors, wastewater treatment plant co-generation electric power systems typically rely on both waste gas and supplemental natural gas. These gases are supplied in separate lines, which must be monitored by meters prior to delivery of the fuel gas to the large gas reciprocating engines responsible for energy production.

With its thermal mass flow sensor design, the ST98 Flow Meter provides direct mass flow measurement without the need for additional temperature or pressure sensors or density calculating devices. The meter's insertion style configuration makes it simple to install in existing piping without cutting the pipe or welding, offering minimal interruption to plant operations.

The ST98 Flow Meter is suitable for service in biogas and natural gas, as well as numerous other process gases, hydrocarbon mixed or dirty gases and plant compressed air and HVAC systems. The ST98 is today operating in plants worldwide, including industries such as electronics, oil/gas, chemical, power generation, food/beverage, pharmaceutical, pulp/paper, steel, wastewater treatment and more.

The ST98 Flow Meter provides accurate flow measurement over a wide flow range. Accuracy is ±1% of reading, plus ±0.5% of full scale. Exceptionally consistent, the ST98 meter offers repeatability to ±0.5% of reading. The insertion style ST98 meter flow range is from 0.75 to 600 SFPS [0.21 to 172 NPS] in air at standard conditions of 70°F [21.2°C] and 14.7 psia [0°C and 1013,25 bar (a)], typical for most gases.

Designed for demanding environments, the rugged ST98's thermal mass flow sensing element is constructed with two all-welded 316L stainless steel thermowells, protecting two matched

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precision resistance temperature detectors (RTDs). One RTD is heated relative to the reference RTD, and the temperature difference between the two is proportional to the process gas mass flow rate.

The ST98 meter's transmitter converts the differential temperature signal to a standard 4-20 mA output signal. The meter's transmitter with its RS232C communications port is housed in either a NEMA Type 4, Type 4X (IP66) enclosure or an explosion-proof enclosure and can be integrally mounted to the flow element or remotely mounted up to 500 feet away. In addition, an LCD display screen indicating flow rate, temperature and totalized flow is available as an option.

With no moving piece construction, the ST98 Flow Meter is unaffected by plant vibration and there's nothing to foul or break when placed near heavy equipment such as reciprocating engines. With its highly stable flow sensor, there is virtually no maintenance or re-calibration required, making it a lowest total cost flow measurement solution over its long service life.

The highly safe and reliable ST98 Flow Meter features a broad range of agency approvals: FM, ATEX, IEC, CSA, CRN, GOST/RTN, NEPSI, CPA, PED, CE Mark (system approvals). It also complies with the Canadian Electrical code's requirements for ANSI / ISA 12.27.01-2011 as a single seal device.

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 the flow and level of air, gases and liquids.

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