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“Electronic flow meters offer several key features and benefits for various industries; the thermal-processing industry in particular benefits from such technology.”

In which particular product area has Super Systems observed an increase in demand over the past couple of years?

One particular area we have experienced high levels of demand in is our flow technology, particularly our eFlo 2.0 product line. We have found that a large portion of our customer base are moving from mechanical gravimetric flow meters to electronic flow meter technology. The electronic meter provides greater precision for control along with data collection of the actual flow.

What are the applications and compatible gases associated with SSI's flow meters?

SSI's flow meters can be used in a variety of applications where accurate flow measurement is critical. They are particularly useful in applications where gravimetric meters are used or where precision is necessary for achieving a suitable result.

One area where SSI's flow meters are commonly used is in industrial processing, particularly in batch and continuous furnaces, as well as generators. In these applications, the flow meters are used to accurately measure the flow of materials such as gases, liquids, and solids.

SSI's flow meters can also be applied in new and emerging applications such as FNC (ferritic nitro carburizing) where precise measurement is critical for achieving accurate results. Overall, the applications for SSI's flow meters are diverse and can be found wherever precise flow measurement is necessary for optimal performance.

SSI's flow meters are capable of supporting a wide range of gases, including natural gas, air, endothermic gas, propane, ammonia, nitrogen, exothermic gas, methanol, water, dissociated ammonia gas, hydrogen, and more, making them ideal for use in a variety of applications, including industrial processes, power generation, and many others.

Can you describe the technology and design of SSI's flow meter?

SSI's flow meter utilizes a differential pressure measurement method to determine the flow rate of gases through an orifice. The eFlo includes two absolute pressure transducers that are located on either side of the orifice. These transducers measure the differential pressure across the orifice, which is directly proportional to the flow rate of the gas.

In order to ensure accurate readings, the flow meter is equipped with temperature compensation technology. This technology allows for precise adjustments to be made to the flow rate measurement based on changes in temperature, ensuring that the readings are accurate and reliable even in varying temperature conditions.

The two pressure transducers used in the flow meter not only provide differential pressure measurement, but they also measure the inlet pressure of the gas being supplied. This allows for a comprehensive understanding of the flow characteristics of the gas and provides additional data for further analysis and optimization of the process.

What are some key features and benefits of using electronic flowmeters, particularly eFlo 2.0, and how does this help heat treaters?

Electronic flow meters offer several key features and benefits for various industries. The thermal-processing industry in particular benefits from such technology. One such benefit is their ability to data log flow, providing accurate measurements of fluid or gas flow rates over time. This is especially useful for diagnostics, such as detecting furnace problems due to an increase in gas flow caused by furnace leaks.

Additionally, electronic flow meters allow for flow control to customer specifications and provide proof of process with digital charts. These meters offer both flow mode and valve mode, which allows for very precise low flow control applications. Another benefit is flow verification using a manometer for the CQI9 specification requirements.

SSI's eFlo 2.0 meters are compatible with a wide range of gases and are resistant to water, oil, carbon, and other contamination due to their limited moving parts. They offer Ethernet and RS485 RTU communications, and their small footprint lowers installation costs. SSI flow meters also come with a built-in webpage for diagnostics, calibration verification, configuration, and troubleshooting. Other features include inlet pressure indications and configurable alarms. Our eFlo 2.0's provide accurate and reliable measurements for fluid and gas flow rates, making them a valuable tool for heat treaters across the globe.

What are the data acquisition capabilities and why are they offered?

SSI's flow meters are equipped with data acquisition capabilities that allow for easy communication and data logging. The meters are offered with the option of communication over Ethernet or twisted pair wires, depending on which works best for a particular application.

The ability to acquire and log data from the flow meter is beneficial in a number of ways. For example, knowing the flow rate of a gas can be used to calculate usage and cost, allowing for better management and control of resources. Additionally, data logging can be used to track changes in flow rate over time, allowing for analysis of trends and patterns that can inform decision-making and optimization of processes.

Furthermore, the data acquisition capabilities of SSI's flow meters can be useful in calculating a carbon footprint. By accurately measuring the flow rate of gases, it is possible to calculate the amount of greenhouse gas emissions associated with a particular process or application. This information can be used to identify areas where emissions can be reduced, leading to improved sustainability and environmental performance. ♻️

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