

Ultra-High Pressure Digital Gas Mass Flow Meters & Controllers

FEATURES

- Used for pilot plants, hydrogeneration reactors, and chemical processes
- Measure and control gas mass flow rates over an ultra-pressure range of 1000 to 10000 psig (24.3 to 243 barg)
- Ranges from 100 scms to 20 slpm
- High accuracy of 1.0% of full scale, repeatability of 0.2% of full scale
- Wide differential pressure range from 1.000 bar (15 psig) to 1000 bar (14500 psig)
- Innovative new "buffer" control valve design for precision control over a wide range of pressures and flow rates
- Built by a 5000 sq ft area of 1000 psig (243 barg), depending on style
- Low, carbon reinforced polyamide valve seat increases valve durability and precision
- Super-high pressure rated valve minimizes gas permeability
- All Sierra's Control™ valves are built with ultra-precise or control high-pressure materials and advanced processes without the expense of 316L stainless systems
- Provides high pressure calibration facility directly available to SI
- 24VDC input power reduces installation cost and complexity
- Unique "for Mobile" mounted in hard hull lets you view and change critical control functions
- Choice from multiple analog or digital signals
- Supports Modbus, Profibus, or Foundation Fieldbus
- CE approved



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SmartTrak 100HP



DESCRIPTION

Precision flow measurement and control at very high gas pressures is among the most challenging applications in the flow industry today. Gas treatment, storage, and transportation valve control use of buffer-valued performance.

Designed to overcome these challenges, the 100HP combines the high performance of the "SmartTrak" with variable-area control flow body of control valve seats, an innovative valve seat design called "buffer™", and a wide-differential high-pressure calibration facility. The result is an instrument with increased application flexibility and accuracy in high pressure gas flow control applications.

To increase valve performance and accuracy under high pressure, Sierra's proprietary "buffer™" valve seat technology uses a flexible, high impact, carbon reinforced polyamide valve seat material to ensure smooth entrance flow with the valve orifice. The result is precision control over a wide range of flows from 100 scms to 20 slpm with an industry-leading leak by as little as 1 cc/min at 1000 psig (243 barg), depending on the valve seat.

Because traditional valve seat materials like steel, bronze and butter-brass will deform under high pressure, the 100HP uses flexible, dense seats to minimize gas permeability.

To ensure the 100HP delivers precise, high pressure measurement and control, each unit is calibrated on our proprietary 50" variable high-pressure calibration facility using a gas flowing high pressure accumulator system and several pressure standard gauges, providing highly accurate static and mobile pressure to match the customer's application perfectly.

An instrument designed with purpose, the 100HP is a versatile solution for the most challenging high-pressure gas flow applications.