

SAGE SIP SPECIFICATIONS

INTEGRAL STYLE PRIME INSERTION MASS FLOWMETER

Flow Meter is thermal dispersion type, utilizing constant temperature difference method of measuring Gas Mass Flow Rate. It contains two reference grade platinum RTD sensors clad in a protective 316 SS sheath. Features direct Mass Flow for gases, wide rangeability, low pressure drop, very low end sensitivity, and no moving parts.

Flow Meter is microprocessor based, does not have any potentiometers, and has Modbus® RS485 RTU communications (IEEE 32 Bit Floating Point). Flow Meter is powered by 24 VDC (12 VDC optional or 115/230 VAC). The power dissipation is under 2.5 watts (e.g. under 100 ma at 24 VDC). Power and output terminals are in a separate compartment for ease of installation.

Electronics is Integral Style, with rugged windowed dual compartment enclosure with local display. The display is a high contrast photo-emissive OLED display, and it displays Mass Flow Rate, Totalized Flow and Temperature as well as a graphical representation of Flow Rate in a horizontal bar graph format. In addition, the calibration milliwatts (mw) is continuously displayed, providing ongoing diagnostics. Flow meter provides a 4 to 20 ma output proportional to Mass Flow Rate as well as Pulsed Outputs of Totalized Flow (12 VDC solid state transistor drive).

Flow Element is Insertion Style, consisting of a 1/2" OD probe (3/4" optional) with lengths up to 36" long (typically 15" long) suitable for insertion into the center of a process pipe. Mounting hardware choices (such as Isolation Valve Assemblies, Compression Fittings, and Flange Mounts) are optionally available.

Calibration Self Check: Flow Meter has built in diagnostics – a display of the calibration milliwatts (mw) can be used to check the sensor's operation by being compared to the original reported "zero flow" value noted meter's Certificate of Conformance (last few lines) and metallic tag. This convenient in-situ field diagnostic procedure verifies that the original factory calibration hasn't drifted, shifted, or changed. This "Sensor Functionality and Zero Self Check" also verifies that the sensor is free from contamination, even without inspection.

Accuracy is +/- 0.5% of Full Scale +/- 1% of reading with a turn-down of 100 to 1 and a resolution of up to 1000 to 1. Repeatability will be 0.2%. The Flow Meter is Sage Metering, Inc. SIP Series, with the trade name Sage Prime™.

Approvals: CSA C22.2; UL913, Class I, Div 1, Grps B, C, D T4; CE; Medical CE (AC Power Only).

