



MONITOR NATURAL GAS AT THE PLANT, AT THE DEPARTMENT AND AT THE BURNER

NATURAL GAS FLOW MONITORING

At the Point of Entry of the Plant

With rising natural gas prices, it is critically important to determine your hourly and daily consumption by measuring the gas entering into the plant with a Sage Thermal Mass Flowmeter. With Sage, you can track the gas usage within your facility each minute, each hour, each day, and gain critical information about your natural gas demand. Are you maximizing operating efficiencies? Are you wasting energy heating a building with all the doors open? Are you adjusting for peak usage? Are you providing your Gas Broker an accurate assessment for your next gas allocation?

Installing a Sage In-Line or Insertion Thermal Mass Flow Meter will not only provide a back-lit readout and 4- 20 ma output of instantaneous mass flow rate, it will also automatically track the highest and lowest flow rate with a date and time stamp. In addition, the instrument will totalize continuously (up to 12 digits) and provide gas temperature as well. A convenient menuing system (through the RS232 output or via the "user-friendly" keypad) allows many other features including "looking back" an hour for average flow, changing decimal points, setting relays, clearing settings, changing units or conducting diagnostics.

Sub-Meter at Each Department

To get an even better handle on plant efficiency, also monitor the gas lines going into different building locations or departments. By sub-metering, you will be able to assess departmental inefficiencies, and assign costs to different operating areas. You will also have an opportunity to institute conservation measures as appropriate.

Combustion Control

By monitoring the natural gas (or backup fuel of propane) into a furnace or burner, along with the air or oxygen line, you can optimize your combustion process. Proper control of the air/fuel ratio can improve efficiency, lower fuel consumption, improve product quality and increase product yields.

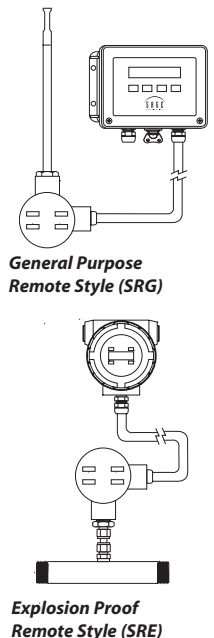
THERMAL MASS FLOW METERS

Sage Metering is your source for monitoring, measuring and controlling the gas mass flow in your industrial process. Our high performance, NIST traceable, thermal mass flow meters will help increase productivity, reduce energy costs, and maximize product yields. With over 70 years of combined experience in delivering quality in-line and insertion thermal mass flow meters for a wide variety of industrial needs, the Sage Metering management team is dedicated to providing you with the performance and customer support that you deserve.

Sage Thermal Mass Flow Meters are designed for high performance mass flow measurement of flow rate and consumption of gases such as natural gas, air, oxygen, propane and other gases and gas mixes. They are field rangeable and have a convenient user interface.

Sage Metering has distinguished itself by offering a higher standard – our mass flow meter output is virtually independent of even large process temperature variations, and our digital electronics is impervious to external analog noise. In addition, our meters feature a back-lit display that reports mass flow or velocity, totalized mass flow, and temperature. Isolated 4-20 ma outputs for mass flow and/or temperature, relays, and a convenient RS232 and keypad user-interface, gives you the flexibility to integrate the functions of flow measurement with your specific needs.

See Sage Metering product brochure for additional information and product benefits or contact us at 866-677-7243 for application assistance.



HOW DOES THERMAL MASS FLOW MEASUREMENT BENEFIT YOU?

- Direct Mass Flow – No need for separate temperature or pressure transmitters
- High Accuracy and Repeatability – Precision measurement and optimal control of your process
- Rangeable over 100:1 Turndown (1000:1 with multiple calibrations) – Accommodates the extremes of your process with one instrument
- Low-End Sensitivity – Detects leaks, and measures flow, even on start-up
- Negligible Pressure Drop – Will not impede the flow nor waste energy
- No Moving Parts – Eliminates costly bearing replacements, and prevents undetected accuracy shifts
- Dirt Insensitive – Provides sustained performance

WHAT ARE THE BENEFITS THAT SAGE THERMAL MASS FLOW METERS OFFER YOU?

- **New:** Verify sensor cleanliness and validate calibration with self-check routine
- **New:** *Touch Screen Technology.* The cover does not need to be removed to access Menuing System
- **New:** *Lead-Length Compensation.* Remote electronics up to 2000 ft from probe
- **New:** Probe Junction Box requires no electronics. Suitable for harsh environments
- Available with up to four totally independent calibrations (four different gases, sensitivities, or configurations). Channels A–D selectable by keypad, laptop or external switch closure
- Powerful state-of-the-art microprocessor technology designed for high performance mass flow measurement, and field rangeability
- Proprietary sensor drive circuit provides enhanced signal stability and is unaffected by process temperature changes
- Menu driven user configurability, including full scale setting, units of measure, pipe area, channel selection, pulsed outputs of total, and diagnostics
- Easy to read 2-line back-lit flow rate/totalizer and temperature display. Also serves as dialog window for menu selection of user options
- RS232 PC interface and free Sage VIP software – easy to use
- Ease of installation, and convenient mounting hardware
- Flow conditioning built in to large flow meters (3/4" and up)