



MONITOR NATURAL GAS AT THE MAIN, THE INDIVIDUAL ZONES, AND THE BOILERS

NATURAL GAS FLOW MONITORING

At the Point of Entry of the Plant

The Sage Prime Thermal Mass Flow Meter provides a means to reduce energy costs by monitoring the natural gas entering into the plant (into the "Main"). It will report hourly and daily consumption providing 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 provide a readout of instantaneous Mass Flow Rate, Total and Temperature. The Flow Rate is also displayed graphically in a horizontal bar graph format. In addition, a separate rear enclosure provides access to an isolated 4-20 ma output of Flow Rate, Pulsed outputs of Totalized Flow and Modbus® compliant RS485 RTU communications suitable for your Building Management System.

Sub-Meter at Each Department

To get an even better handle on plant or building 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 or Compliance Monitoring

By monitoring the natural gas (or backup fuel of propane) into a furnace or boiler, 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. In addition, many local and state-wide jurisdictions require fuel flow meters on all medium and large size boilers to aid combustion adjustments to minimize emissions.

THERMAL MASS FLOW METERS

Sage Meters measure mass flow directly — there is no need for ancillary instrumentation such as temperature or pressure transmitters. Furthermore, our instruments have exceptional signal sensitivity, have no moving parts, require little if any maintenance, have negligible pressure drop and have a turndown up to 100 to 1, and resolution as much as 1000 to 1.

Our experienced application engineers, many of whom have worked in the Thermal Mass Flow marketplace since its inception, will assist you in choosing the proper gas flow meter for your application — and they will be pleased to offer installation guidance to assure that the meter(s) selected will perform as accurately as possible.

See the Sage Metering product brochure or visit our website (www.sagemetering.com) for additional information and product benefits or contact us at 866-677-7243 for application assistance.

MAJOR BENEFITS OF THERMAL MASS FLOW METERS

- Direct Mass Flow — No need for separate temperature or pressure transmitters
- High Accuracy and Repeatability — Precision measurement and extraordinary repeatability
- Turndown of 100 to 1 and resolution as much as 1000 to 1
- Low-End Sensitivity — Measures as low as 5 SFPM (e.g., 0.1 SCFM in a 2" pipe).
- Negligible Pressure Drop — Will not impede the flow or waste energy
- No Moving Parts — Eliminates costly bearing replacements, and prevents undetected accuracy shifts
- Dirt Insensitive — Provides sustained performance
- Low cost of ownership
- Ease of installation and convenient mounting hardware



SPECIFIC BENEFITS OF THE SAGE PRIME

- Powerful state-of-the-art microprocessor technology
- Rugged, user-friendly packaging with easy terminal access
- Proprietary digital sensor drive circuit is unaffected by process temperature and pressure changes
- Low power dissipation, under 2.5 Watts (e.g. under 100 ma at 24 VDC)
- High contrast photo-emissive OLED display with numerical Flow Rate, Total and Temperature, as well as Graphical Flow Indicator
- Calibration milliwatts (mw) is continuously displayed, providing for ongoing diagnostics
- Remote Style has Lead-Length Compensation. Allows Remote Electronics up to 1000 feet from probe; Explosion Proof Junction Box has no circuitry, just terminals
- Modbus® compliant RS485 RTU communications
- Flow conditioning built into In-Line flow meters (1/2" and up)
- Field reconfigurability via Sage ADDRESSER or Sage DONGLE
- Captive Flow Conditioners for Insertion Meter applications, if required

¹ Note, a built-in photocell continuously monitors the ambient light, and adjusts the display brightness for optimum long-term life; and the display will go into "Screen Saver Mode" until a viewer's motion is detected.