



## THERMAL FLOW METERS PROVIDE THESE ADVANTAGES:

- Exceptional low-flow sensitivity provides accurate measurement over a wide range of venting, flaring and combustion applications
- Stainless steel sensor is suitable for corrosive, particulate-laden gas streams
- No temperature and pressure compensation required
- Built-in alarms, totalizer and a wide variety of communications protocols available for easy interfacing with emissions management systems



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A Solutions Integrator for:



## THERMAL FLOW METERS FOR MIXED GAS APPLICATIONS

### Real time responsiveness for a variety of mixed gas flow measurement applications.

Mixed gas mass flow meters from Fox Thermal deliver the highest level of accuracy for a wide range of applications. The SageCom™. gas selection feature - available on the FT1 and FT4 products - allows the user to create a custom gas mix ideal for these mixed gas applications:

- Mixed Gas Mass Flow Meter

Thermal mixed gas mass flow meters are used to measure a variety of mixed gases including digester gas and biogas.

- Biogas Mass Flow Meter

Thermal flow meters' wide turndown provides an accurate measurement of the fuel gas.

- Digester Gas Mass Flow Meter

Thermal flow meters are widely used to monitor gases from anaerobic digesters.

- Flare Gas Mass Flow Meter

Flares are subject to regulations requiring operators to measure, record and report the amount of flared gases. Thermal insertion meters are easily installed in pipes, ducts and stacks.

- Vent (Flash) Gas Mass Flow Meter

Volatile Organic Compound (VOC) concentrations as well as VOC flow rates must be measured to evaluate mass emission rate. Thermal flow meters are widely used in these applications.

- Landfill Gas Mass Flow Meter

The EPA requires landfill operators to collect the methane produced on site. Thermal flow meters' excellent low-velocity measurement capability makes them suitable for these operations.

- Natural Gas Mass Flow Meter

Thermal meters provide accurate, repeatable performance in natural gas monitoring and sub-metering applications.

- Liquefied Petroleum Gas (LPG) Mass Flow Meter

Propane, Butane, and Propane/Butane mixtures can be measured.

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## THERMAL FLOW METERS FOR MIXED GAS APPLICATIONS (CONTINUED)

Sage Thermal flow meters use a constant temperature differential (constant  $\Delta T$ ) technology to measure mass flow rate of air and gases. The thermal mass flow sensor consists of two Resistance Temperature Detectors (RTD's). The sensor elements are constructed of a reference grade platinum wire wound around ceramic mandrels that are inserted into stainless steel or Hastelloy tubes.

The Reference RTD measures the gas temperature. The instrument electronics heat the mass flow sensor, or heated element, to a constant temperature differential (constant  $\Delta T$ ) above the gas temperature and measures the cooling effect of the gas flow. The electrical power required to maintain a constant temperature differential is directly proportional to the gas mass flow rate. The microprocessor then linearizes this signal to deliver a linear 4-20mA signal.

Other typical gases:

- Air
- Compressed Air
- Ammonia
- Argon
- Butane
- Carbon Monoxide
- Carbon Dioxide
- Ethane
- Helium
- Hydrogen
- Methane
- Nitrogen
- Oxygen



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