



FOX THERMAL'S FLOWMETERS 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, totalizers and a wide variety of communications protocols available for easy interfacing with emissions management systems.



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THERMAL FLOW METERS FOR PURE GAS APPLICATIONS

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

Pure gas flow meters from Fox deliver the highest level of accuracy for a wide range of applications:

- Argon Mass Flow Meter
Fox flow meters offer both insertion and inline style meters for Argon flow metering.
- Carbon Dioxide Mass Flow Meter
Many industries - such as chemical, petrochemical, iron & steel, cement, and paper & pulp - emit CO₂ gas, and it is commonly used to neutralize process and waste water streams. Fox Meters are frequently used in these applications.
- Carbon Monoxide Mass Flow Meter
Although almost 80% of CO emission are from transportation emissions, there are still many industries that need to measure this gas. In these applications, Fox uses the actual gas for calibration.
- Helium Mass Flow Meter
With helium becoming scarcer and its cost rising, it is more important than ever to monitor flow rates and to detect leaks in order to avoid the high-costs of process inefficiencies.
- Hydrogen Mass Flow Meter
Hydrogen is used in the pharmaceutical, chemical, petroleum, metallurgical, glass manufacturing, and electronics industries.
- Methane Mass Flow Meter
In biogas applications such as digester operations and coal gas recovery, methane plays a large part. Fox meters work very well with these applications by accurately measuring very low-flow rates.
- Nitrogen Mass Flow Meter
Nitrogen is used in purging applications for heating, ventilation and plumbing industries. Large volumes of nitrogen are also used by oil refineries and petrochemical industries for purging and blanketing operations, and it is being used at an increasing rate by the food industry.

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THERMAL FLOW METERS FOR PURE GAS APPLICATIONS (CONTINUED)

- Oxygen Mass Flow Meter

Medical centers, clinics, and hospitals often have use for meters to measure the flow of oxygen. Fox maintains cleaning facilities for cleaning and bagging meters intended for use in oxygen applications. Fox Meters are approved for use in oxygen applications including medical oxygen.

Fox 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 to 20 mA signal.

Other typical gases:

Air
Ammonia
Butane
Compressed Air
Ethane
Natural Gas
Propane



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