Thermal Gas Mass Flow Meters for Industrial Applications

PRECISE, RELIABLE, TRUSTED SOLUTIONS IN GAS FLOW MEASUREMENT

- INDUSTRIAL PROCESSING PLANTS, PULP & PAPER, STEEL, AND CHEMICAL
- OIL & GAS
- BIOGAS
- WASTEWATER

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**BENEFITS OF THERMAL MASS FLOW TECHNOLOGY**

- Direct mass flow measurement of air and gases in standard volumetric units (e.g., SCFM or NM3/H) or mass units (e.g., LBS/M or KG/H)
- No additional pressure or temperature compensation required
- Repeatability and exceptionally broad measurement range: up to 1000:1 (100:1 typical)
- Standard linear 4-20mA output proportional to mass flow rate
- Low pressure drop
- No moving parts
- Cost-effective
- Insertion, inline, and remote* styles
- Measures flow rate and temperature

*Features and approvals vary by model number

**INDUSTRIES AND APPLICATIONS**

**Major Industries Served**

- Industrial facilities
- Oil & Gas
- Wastewater
- Environmental and emissions monitoring
- Aluminum and steel production
- Pulp & Paper facilities
- Chemical plants
- Textile plants
- Manufacturing of glass and ceramics
- Food and beverage facilities
- Automotive plants
- Pharmaceutical facilities

**Industrial**

- Pure and mixed gas measurement of industrial processes

**Oil & Gas**

- Measurement of gas to flares or combustors
- Gas measurement for gas allocation
- Gas from Vapor Recovery Units (VRU’s)
- Gas from separators
- Fuel and natural gas monitoring

**Wastewater Treatment Facilities**

- Air flow monitoring of aeration to pools
- Natural gas flow to sludge incinerators

**Environmental & Emissions Monitoring**

- Natural gas monitoring for emissions calculations
- Vent or flash gas monitoring
- Flare or waste gas monitoring
- Landfill gas (LFG) monitoring
AWARD-WINNING FEATURES ON FOX THERMAL PRODUCTS

The entire line of thermal gas mass flow meters from Fox Thermal have consistently won innovation and breakthrough product awards.

Compare model features below:

- 4 Innovation Awards
- 4 Breakthrough Product Awards
- 1 Product of the Year Award

THE FOX THERMAL DIFFERENCE

- Microprocessor-based, field-rangeable electronics
- DDC-Sensor™ proprietary flow sensor design*
- Gas-SelectX® field selectable gases / gas mixes*
- CAL-V™ and Zero CAL-CHECK® Calibration Validation*
- Free FT View™ Software to configure meter, print Calibration Validation certificates, run simulations, and more*
- Data Logger with 7-year history*

*not available on all models

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MODEL FT1

The “Plug-n-Play” Flow Meter

An economical solution for a variety of industrial and wastewater applications.

• Advanced DDC Sensor™
• Gas-SelectX® technology: Pure gas menu and a 5-gas mix
• CAL-V™ Calibration Validation
• Optional Modbus RTU (RS485), BACnet MS/TP, or HART communication protocols
• Insertion and inline styles

MODEL FT2A

The Industrial Facility Favorite

Available with extensive communications options.

• DC or AC input power options
• Insertion, inline, and remote styles
• Contact input to reset total
• Optional Modbus RTU (RS485), BACnet MS/TP (RS485), Profibus-DP, DeviceNet, or Ethernet Modbus TCP communication protocols
MODEL FT3

Offshore Favorite

• Infrared (IR) buttons on display/configuration panel
• Zero CAL-CHECK® and CAL-V™ Calibration Validation tests
• Optional Modbus RTU (RS485) or HART communication protocols
• DC or AC input power options
• Insertion, inline, integral, and remote styles

MODEL FT4A

Great for Digester Applications and Much More

A precision meter for landfill gas, biogas, and flare gas measurement.

• Advanced DDC Sensor™
• Gas-SelectX® technology with 3 Menus: Pure Gas, Gas Mix, and Oil & Gas Mix
• CAL-V™ Calibration Validation
• Optional Modbus RTU (RS485) or HART communication protocols
• Insertion and inline styles
MODEL FT4X

BLM 3175 and API 14.10 Accuracy Compliant

The perfect flow meter for oil & gas applications.

- Data Logger with date/time stamp
- Advanced DDC-Sensor™
- Gas-SelectX® technology with 3 Menus: Pure Gas, Gas Mix, and Oil & Gas Mix
- CAL-V™ Calibration Validation
- Optional Modbus RTU (RS485) or HART communication protocols
- DC or AC input power options
- Insertion, inline, integral, and remote styles

FT4X Standard Data Logger with Date/Time Stamp

The advanced features of the Model FT4X Data Logger include:

- 40 daily totals (24-hour totals)
- Contract Time set to define Contract Day
- Time/date stamped alarm and event logs; 7 year history
- Power off totalizer; power failure creates event log entry

Access logs to learn about the meter’s settings and functionality:

- View the meter’s gas or gas mix composition
- View the meter’s configuration and other meter settings
- View Calibration Validation historical test data
- View and print logs of events and alarms
STATE-OF-THE-ART TECHNOLOGY

FT View™ Software

Free, advanced downloadable software.

- PC-based software application, installed in minutes
- Configure flow meter settings
- Available for every Fox Thermal flow meter model
- Flow meter connected by USB port

Calibration Validation

Know if your flow meter is reading accurately in the field.

- Calibration Validation at the push of a button
- Eliminate the cost and inconvenience of annual factory calibration
- Test takes less than 5 minutes to run
- Produces a pass/fail result
- Certificate can be produced (using FT View software only)

DDC-Sensor™ - Direct Digitally Controlled Sensor

Innovative design for precise measurement and full-featured flow meters.

- Interfaces directly with the flow meter’s microprocessor
- More control, precision, and programmability
- Robust sensor design, sensor element tubes supported at both ends
- Provides the technology platform necessary for calculating accurate gas correlations

Note: Calibration Validation and DDC-Sensor™ available on limited models
Gas-SelectX® Gas Selection Menu - Models FT1, FT4A, and FT4X

- Allows the user to choose from gas menus
- Switch gases or gas mixes in the field
- No need to return the flow meter to the factory for recalibration
- Three gas menus:
  - Pure gas menu
  - Mixed gas menu
  - Oil & gas menu*

*Not available on model FT1

**Choosing Natural Gas sets the NAESB average in a pre-programmed mix of methane, ethane, propane, nitrogen, and carbon dioxide. Natural gas composition can be reprogrammed by user with custom percentages if necessary.