

Thermal Mass Flowmeters, Flow and Level Switches for Industrial Process Control



Precise, reliable
measurement for:

- Natural Gas
- Compressed Air
- Combustion Air
- Submetering & Custody Transfer
- Oxygen and Ozone Flow
- Flare Headers
- Purge Monitoring
- Digester Gas
- Wastewater Aeration
- Tank Monitoring
- Loss/Start of Flow Detection

FOX
THERMAL INSTRUMENTS, INC.



FOX FEATURES

Fox Thermal Instruments provides a broad range of reliable, accurate and full-featured flowmeters and flow and level switches to industrial OEMs and end-user customers. Our thermal flowmeters offer you these advantages:

- Direct mass flow measurement in standard units (i.e. SCFM, NM3H, etc.) or mass units (lbs/min, kg/h, etc.)
- No pressure or temperature compensation requirements
- Exceptionally broad measurement range (100 to 1 turndown typical) including very low velocity flow
- No moving parts and negligible pressure drop
- A variety of analog and digital output signals
- Field programmable and calibrated with NIST standards
- Available in stainless steel and Hastelloy sensor configurations
- Insertion models with retractor options for 1-1/2" and larger pipes
- Inline models with flow conditioning from 1/4" to 6"
- Approved for hazardous locations

Smart, Real Time Flow Measurement

The FOX Model FT2 gas flowmeter and temperature transmitter measures two important process variables with a single instrument and supports a wide range of communication protocols:

- RS232
- RS422/RS485-Modbus
- ProfibusDP
- DeviceNet
- Ethernet

The flowmeter directly measures mass flow rate of air and gases, and provides isolated 4-20 mA and pulse outputs for flow rate, as well as a 4-20 mA output for process gas temperature. Easy to use FT2 View Software lets you:

- quickly change meter configuration
- view process measurements
- collect and analyze process data at your PC or control station



The Model FT2 flowmeter and temperature transmitter is FM and FMc approved for Class I, II, III, Division 2, Groups A, B, C, D, E, F, G, T4A hazardous locations. NEMA 4X and CE approved.

The Palm PDA interface offers similar functionality and is ideal for "walk around" monitoring of process conditions.



View and Adjust Settings

Mass flow rate, totalized flow, elapsed time, process gas temperature and alarms can be viewed on the instrument's display.

The display can also be used in conjunction with the configuration panel to adjust:

- 4-20 mA flow and temperature settings
- pulse output scaling
- pipe area
- zero flow cutoff
- filtering, diagnostics and alarm limits

The Power Pro™ Sensor

The FOX Power Pro™ sensor operates at a higher power level than competitive models, resulting in improved response time and wider turndown.

The Power Pro sensor also provides exceptional accuracy at high velocities – up to 50,000 SFPM air.





Rugged, Reliable Flow Metering for Hazardous Areas



Exceptional low-flow sensitivity, fast response, and low maintenance requirements are the distinguishing features of the FOX Model 10A.

The Model 10A is the instrument of choice for many process measurement, cost-allocation and system diagnostics applications. The microprocessor based, field-rangeable transmitter is FM and CSA approved for Class I, Division 1, Groups B, C, and D, T3C hazardous locations. NEMA 4X and CE approved.

Virtually immune to changes in temperature and pressure, the meter provides an accurate mass flow measurement under varying loads. Its rugged no moving parts design is also ideal for high-vibration industrial environments.

A variety of optional configurations, materials and process connections gives you improved design flexibility, reduced cost-of-ownership and enhanced control capabilities.

- 316 SS standard
- Optional Hastelloy C-276
- Inline or insertion-type meter configurations

- Inline meter incorporates flow conditioning
- All welded sensor construction
- On board display and configuration panel
- NIST-traceable calibration

Flow and Level Switches for Liquids, Gases and Slurries

Offering you proven reliability and repeatability, the FOX Model SW100 flow and level switch can be used in liquids, gases and slurries. Suitable for harsh and hazardous environments, the instrument features:

- rugged, no moving parts design
- corrosion resistant sensor
- FM approved explosion-proof housing

The SW100's advanced mass-balanced sensor helps provide long term, repeatable switch point detection. Two sensing elements of the same size and mass optimize performance under changing flow, level or fluid temperature conditions.

The long, thermally isolated sensor ensures that the measurement is not affected by changes in the surrounding environment.

This end loss protection feature eliminates the "switch point drift" that may result from day-to-night or season-to-season temperature variations.

In liquid level applications the sensitive, fast response sensor also reacts to differences in fluid thermal conductivity, making it ideal for interface detection.

Wetted materials are all welded, 316 stainless steel. The SW100 can be easily set to detect flow and level changes. Relay outputs are standard and can be configured to detect increasing or decreasing flow. Normally open or normally closed connections are available.

The SW100 is FM approved for Class I, Division 1, Groups B, C, D hazardous locations. NEMA 4X and CE approved.



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