



SENTRIX® FLOW MEASUREMENT

Portable, inline and insertion meters featuring thermal mass flow technology

High-accuracy solutions for emissions reporting compliance and proactive seal monitoring

Sentrix flow measurement technology provides high-accuracy, easy-to-use solutions for measuring and tracking packing case vent flow in gas compressors. Multiple configurations are available to suit your specific gas monitoring needs: **portable meters** for periodic, manual measurement of gas leakage and **inline meters** for continuous, automatic collection of flow data. An **insertion-style** inline meter is available for line sizes ranging from 2 to 24 inches (51 to 610 mm).

ACCURATE & DEPENDABLE

All options have accuracy of $\pm 1\%$ reading, $\pm 0.5\%$ full scale (at calibrated conditions). With 100:1 turndown and flow ranges from 0.01 to 559 SCFM [0.01 to 950 NCMH], Sentrix meters measure a wide flow range with superior sensitivity in extreme low and high flow conditions. Units feature automatic pressure and temperature compensation and are capable of measuring multiple gases without the need for re-calibration.

Sentrix inline meters are calibrated for a specific gas composition. Calibrations are available for most gases, including nitrogen/air, hydrogen, propane, methane and carbon dioxide. Sentrix portable meters are provided with six field-selectable factory gas calibrations.

Sentrix meters are built for durable performance and designed for ease of use. Units deliver reliable, clog-free operation, even with lubricated machines. Portable meters feature high-resolution, touch panel displays for convenient operation.

COMPLIANCE MADE EASY

Sentrix meters are convenient, cost-effective solutions for meeting US EPA Greenhouse Gas Reporting Rule: Subpart W (40 CFR Part 98). The high accuracy of thermal mass flow measurement satisfies BAMM (Best Available Measurement Methods) requirements and is the only technology capable of measuring extreme low leakage from packing cases. Sentrix meters provide direct measurement of gases, which is required by Subpart W of the EPA rule for reciprocating compressor rod packing emissions.

BENEFITS

- Precise, direct flow measurement
- Simplifies regulatory compliance
- Allows proactive monitoring & maintenance of sealing components
- Provides reliable assessment of gas leakage costs
- Simple-to-use, with pre-set calibrations
- Enhances safety

DESIGN FEATURES

- Portable and inline options to suit specific needs
- Thermal mass flow technology for superior accuracy
- Inline meters are calibrated for a specific gas composition
- Portable meters offer multiple, field-selectable calibrations and have high-resolution, touch panel displays
- Durable construction

Portable Meter



Inline Meter



Insertion Meter



Flow information is easily accessible for reporting and analysis. Data captured by the portable meter can be stored in the unit and downloaded to a PC or USB storage device, while data from the inline meter is transmitted to user systems through an easy-to-use interface.

IMPROVE MAINTENANCE PLANNING

Precise measurement of leakage through the packing case vent provides an opportunity to monitor the performance and condition of rod packing. Increasing leakage is an early warning of packing wear. Early detection allows operators to plan for repairs and utilize condition-based maintenance.

Accurate low-flow sensing also provides reliable and accurate data for comparing the effectiveness of various packing options.

SPECIFICATIONS

INSTRUMENT

Media Compatibility: Air, methane, propane, hydrogen and carbon dioxide

Pipe/Line Size Compatibility: 1/4" to 2" [6mm to 51mm]

Accuracy (at calibrated conditions): ±1% reading ± 0.5% full scale

Repeatability: ± 0.5% reading

Turndown Ratio: 100:1

FLOW ELEMENT

Installation: In-line "T", NPT or tube

Type: Thermal dispersion

Materials of Construction: All welded 316L stainless steel probe element with Hastelloy-C thermowells; 316 stainless steel NPT and tube fittings

Process Connection: T-fitting [NPT female]; 1/2", 1", 1 1/2" or 2"

Tubing: 1/4", 3/8" or 1/2"
1/2" NPT compression for insertion meter

Process Operating Temperature: 0 - 250° F [-18 to 121° C]

Process Operating Pressure:
T-fitting [NPT female]: 240 psig [16.5 bar(g)]
Tube: 600 psig [41 bar(g)]

FLOW METER

Enclosure: NEMA 4X (IP67) aluminum epoxy coated

Output Signals:

(2) 4-20 mA assignable to flow or temperature
(1) 0-500 Hz pulse proportional to flow for totalizer/counter

Communication Port: RS-232C standard

Input Power: DC: 18 to 36 Vdc

Operating Temperature Range: 0 to 140° F [-18 to 60° C]

Digital Display: (Optional)
4-LCD, 2 line x 16 characters. First line is flow rate and engineering units. Second line is user selectable as temperature, flow totalizer or alternating.

Flow Meter Agency Approvals: FM/FMC for hazardous location installation, Class 1, Div. 1 Groups B, C, D Div. II Group A, B, C, D

Pending Agency Approvals for Portable Analyzer: FM/CSA for hazardous location installation Class 1 Div. II Group A, B, C, D; ATEX/IECEX Zone II 2 G Ex d IIC T6...T3; II 2 D Ex td A21; CE Marked

N.I.S.T. Certified Test Lab Calibration: Standard

INSERTION METER

Velocity Range: 0.3 SFPS to 400 SFPS

Flow Range: Dependent on pipe diameter. (For example, the Flow Range for a 2" pipe diameter is 0.3927 SCFM to 523.2 SCFM.)



Sentry™ Portable Meter



Sentry™ Inline Meter



Sentry™ Insertion Meter

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