

Low-Cost, High-Performance, Insertion Gas Mass Flow Meter

Features

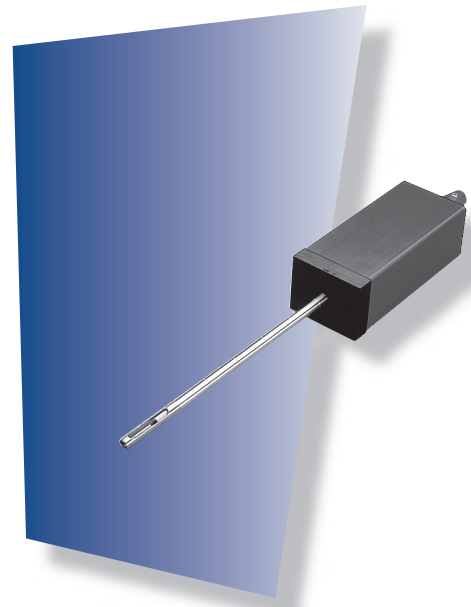
- Outstanding performance at an economical price!
- Excellent choice for OEMs
- Direct mass flow monitoring eliminates need for temperature and pressure corrections
- Exceptional low-velocity sensitivity
- 200 millisecond response to changes in flow rate
- Lowest pressure drop of any flow measurement technology

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600 Series Accu-Flo™



Description

Sierra Instruments' Series 600 Accu-Flo™ Insertion Mass Flow Meters provide outstanding accuracy and millisecond response time at a reasonable cost. They monitor the mass flow rate of air and process gases in ranges from 0–200 to 0–20,000 sfp (0–1 to 0–100 smps). The Accu-Flo™ probe inserts into pipes, ducts, or external air flows and delivers an electronic output signal proportional to the total gas mass flow rate, without the need for temperature or pressure compensation.

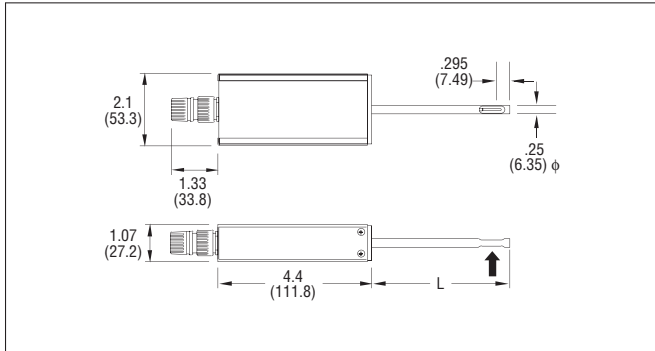
The Accu-Flo™ meter is ideal for monitoring free air flows, air flow rates in ducts and pipes, flows of non-corrosive gases compatible with the device's wetted materials, and applications requiring fast time response (0.2 seconds) and minimal flow blockage. Typical applications include: heating, ventilation and air conditioning; hood and gas cabinet monitoring; clean-room and clean-bench face velocity monitoring; and flow research.

The Accu-Flo™ fast-response sensor is located at the tip of a 0.25-inch diameter, 304 stainless steel probe. Transducer electronics are packaged in a dust-proof NEMA 2 enclosure, mounted either directly on the sensing probe or remotely up to 50 feet away.

The information contained herein is subject to change without notice.

Dimensional Specifications

Model 600



All dimensions are inches. Millimeters are in parentheses. Certified drawings are available on request.

PROBE LENGTH						
	L04	L06	L13	L18	L24	L()
Dim. L	3.1 (88.7)	5.1 (129.5)	12.3 (312.4)	17.3 (439.4)	23.3 (591.8)	Special Length

Performance Specifications

Accuracy of Point Velocity

± 1% of full scale + 0.5% reading over 32° to 120°F (0° to 50°C)
and 5 to 30 psia (0.3 to 2 bara)

Repeatability

± 0.2% of full scale

Temperature Coefficient

± 0.02% of reading per °F within ± 50°F of customer specified conditions
± 0.03% of reading per °F within ± 50° to 100°F of customer specified conditions
± 0.04% of reading per °C within ± 25°C of customer specified conditions
± 0.06 of reading per °C within ± 25° to 50°C of customer specified conditions

Pressure Coefficient

.02% per psi for air, consult factory for other gases

Response Time

200 milliseconds to 63% of final velocity value

Operating Specifications

Gases

Most non-combustible, non-corrosive gases, methane

Mass Flow Rates

0 to 200 sfpm (0 to 1 smps) minimum, 0 to 20,000 sfpm (0 to 100 smps)
maximum for air and nitrogen (maximum full scale varies with gas)

Gas Pressure*

120 psig (8 barg) maximum

* Maximum gas pressure is determined by the mechanical process connections, as well as, the application conditions. Mechanical limitations are shown above, please consult factory for application limitations.

Pressure Drop

Negligible

Gas & Ambient Temperature

Gas 15° to 176°F (-10° to 80°C)

Ambient 32° to 120°F (0° to 50°C)

Power Requirements

15 VDC, 300 mA maximum

Output Signal

Linear 0–5 VDC proportional to mass flow rate or velocity,
1000 ohms minimum load resistance; or

Linear 4–20 mA proportional to mass flow rate or velocity,
400 ohms maximum loop resistance

Physical Specifications

Wetted Material

Probe 316SS

Sensor 304SS, glass coating epoxy

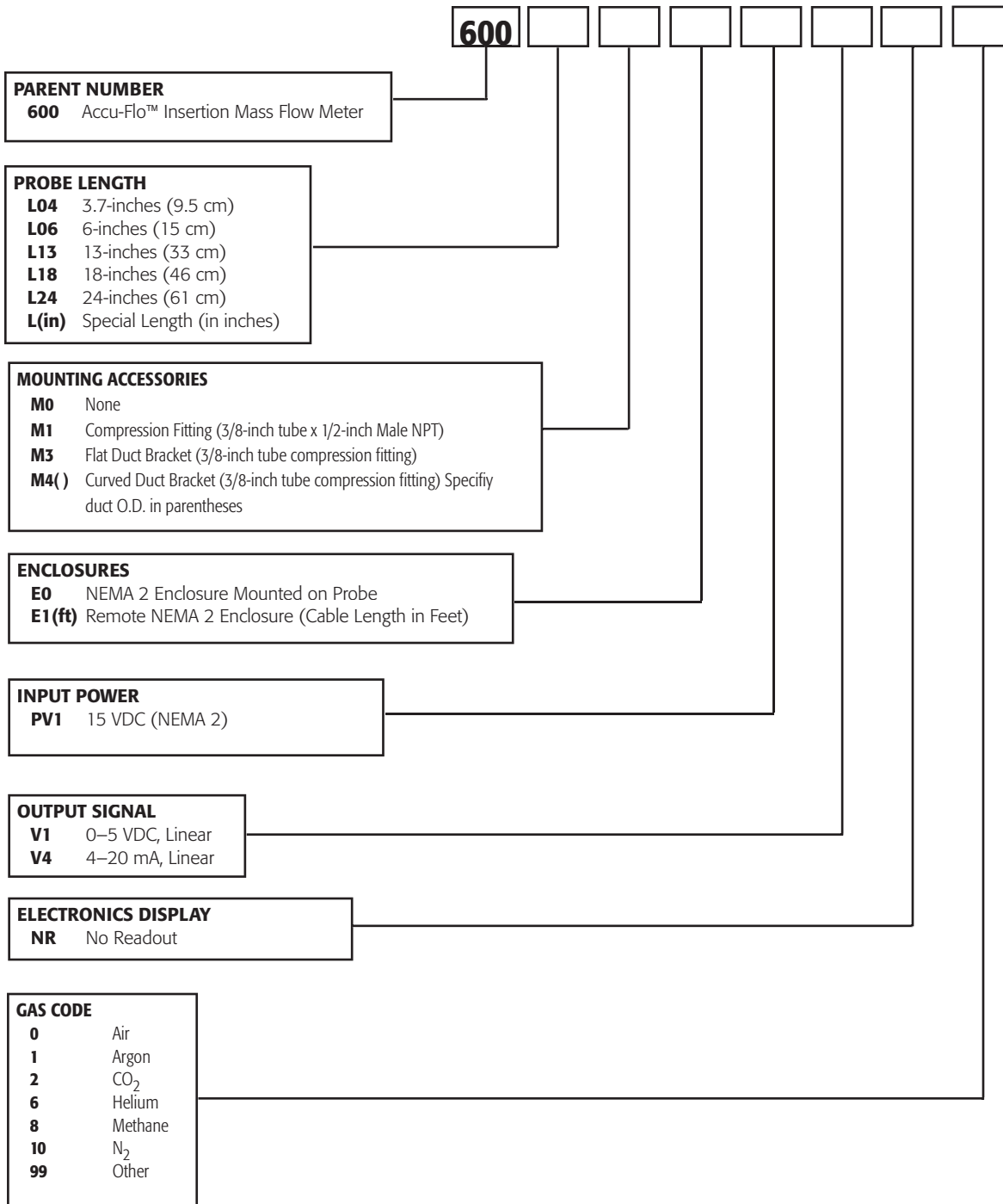
Enclosure

Anodized aluminum NEMA 2

Connector

NEMA 2 Circular connector with plug

Ordering the Model 600



ACCESSORIES (Consult Factory)

