

Mass Flow Controllers

One Instrument... Over 110 Gases



Why we Stand Out

- ◆ Flexibility of 110+ selectable on-board gases
- ◆ Lifetime Warranty with calibrations
- ◆ Fast 100 millisecond valve control
- ◆ Pinpoint accuracy at 0.2% Full Scale and 0.8% Reading
- ◆ 200-1 Turndown Ratio allows lower accurate flow readings
- ◆ Flows from 0.5 SCCM to 10000 SLPM Full Scale
- ◆ Compatible with FlowVisionSC download on Windows
- ◆ No additional rack mount power or display supplies needed
- ◆ All units come with RS-232 and all Analog Communication
- ◆ Multiple unit control made easy with the BB9 Breakout Box

Technical Information

Accuracy	0.8% of reading / 0.2% of Full Scale
Repeatability	0.2% at Full Scale
Operating Range	1-200 % Measure and Control
Response Time	100 Milliseconds
Standard Conditions	25°C and 14.696 PSIA (STP)
Operating Temp	-10°C to +50°
Humidity Range	Non-Condensing (0-100%)
Flow Rate	102.4% Controllable Full Scale
Maximum Pressure	145 PSIG
Digital Options	RS 232; RS 485; Modbus; PROFIBUS
Analog Options	0-5 Vdc; 1-5Vdc; 0-10 Vdc; 4-20 mA
Electrical Connections	8 Pin, 9 Pin, 15 Pin, 6 Pin Industrial

Apex MFC in a Glance

The Apex Mass Flow Controllers are laminar flow controllers that use differential pressure measurements within the known volume coupled with a proportional valve to control flow rates. Unlike Thermal Mass Flow Controllers, Apex MFCs have ten millisecond reaction time, no significant warmup time, and can measure multiple gases with one controller, among other advantages. One MFC works across 110+ gases.

See page XVI for all the potential gases you can flow with 1 unit.

Common Applications

Research and Development
Sputtering
Thin Film Deposition
Chemical Vapor Deposition
Plasma Production
Replacement for Valve Control
Vacuum Venting and Gassing
Fuel Cell Systems
Nitrogen Blanketing
Shaping Air in Paint Booths

Dimensions

Connections

≤50 SCCM	10-32 UNF (Euro M-5)
50 SCCM ≤ 20 SLPM	1/8" NPT Female
20 SLPM ≤ 100 SLPM	1/4" NPT Female
100 SLPM ≤ 250 SLPM	1/2" NPT Female
> 250 SLPM ≤ 2000 SLPM	3/4" NPT Female

Accessories

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Additions

- Local Set Point Module
- Remote Digital Display
- Assortment of Connecting Cables
- Simple Power Cords
- FlowVision
- Upstream valve for Vacuum Applications

- Totalizer
- Additional Fittings
- Orifice Sizing
- Gas Blend Calibrations
- Bi-Directional Flow Calibration
- 0.4% of Reading, High Accuracy Option



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