



### 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.

### 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

### Why we Stand Out

- ◆ Flexibility of 117+ selectable on-board gases
- ◆ 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 2000 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
Input / Output Signal	RS-232 Serial and 0-5 Vdc
Input / Output 2 <sup>nd</sup>	0-5 Vdc; 0-10 Vdc; 4-20 mA
Electrical Connections	8 Pin Mini Din (6 Pin Industrial Option)

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



222 Riverstone Dive  
Canton, GA 30114  
770-479-7138

www.schoonoverinc.com  
e-mail info@schoonoverinc.com