

## Low Pressure Drop Mass Flow Controllers

One Instrument... Over 100 Gases



### Why we Stand Out

- ◆ Pressure drops as low as 0.06 PSID for the toughest applications
- ◆ Lifetime Warranty with calibrations
- ◆ Flexibility of Over 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
- ◆ 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

Pressure Drop	As low as 0.06 PSID
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	50 PSIG
Signal Options	RS-232 , RS-485, 0-5 Vdc, 0-10 Vdc, 4-20 mA
Electrical Connections	8 Pin, 9 Pin, 15 Pin, 6 Pin Industrial

### Apex MFC in a Glance

The Apex Low Pressure Drop 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. With Pressure Drops as low as 0.06 PSID, the Low Pressure Drop MFCs have all the advantages of the standard Apex MFC, but with the additional advantage of accurate flow control without the pressure gradient.

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

### Common Applications

- Research and Development
- Atmospheric Testing
- Environmental Air Sampling
- Expensive Gas Applications
- Leak Detection
- Thin Film Deposition
- Chemical Vapor Deposition
- Plasma Production
- Replacement for Valve Control
- Fuel Cell Systems

#### 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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