**Aggressive Gas Mass Flow Controllers**

**One Instrument... Over 100 Gases**

- **Flexibility of 130+ 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 3000 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**

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**Why we Stand Out**

- 通用气体流量控制器
- 高精度：0.2% FS和0.8%读数
- 快速阀门控制：100毫秒
- 流量范围：0.5 SCCM 至 3000 SLPM 满刻度
- 兼容FlowVisionSC下载
- 不需要额外的机架mount电源或显示装置
- 所有单位都配有RS-232和所有模拟通信
- 多个单位控制通过BB9 Breakout Box轻松完成

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**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. The Aggressive Gas Flow Controllers are compatible with Ammonia, Hydrogen Sulfide, Nitric Oxide, Nitrogen Trifluoride, Propylene, along with the 110 on board gases offered with the standard Apex MFC. See page XVI for all the potential gases you can flow with 1 aggressive gas unit.

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**Common Applications**

- 研究与开发
- Sputtering
- 化学气相沉积
- 质子交换膜
- 头部控制替换
- 真空吹扫和加气
- 燃料电池系统
- 环氧树脂
- 涂装室

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**Technical Information**

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

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**Dimensions**

<table>
<thead>
<tr>
<th>≤50 SCCM</th>
<th>≤50 SCCM</th>
</tr>
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<tbody>
<tr>
<td>10-32 UNF (Euro M-5)</td>
<td>1/8” NPT Female</td>
</tr>
</tbody>
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**Connections**

| 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 |

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**Accessories & 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