

# SLA Series Biotech

## Mass Flow Controllers & Meters

Efficiency and simplicity combine to improve bioprocessing performance with the new SLA Series *Biotech* MFC. Built on the proven performance of the industry-leading SLA Series, two options packages - performance or premium - incorporate features to reduce the number of MFCs needed in equipment, simplify MFC purchasing and satisfy regulatory requirements.



SLAMf for Hosedown  
& Washdown Applications

SLA5800

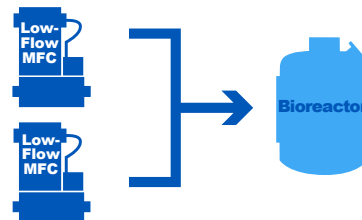
EtherNet/IP<sup>®</sup>



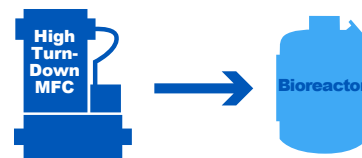
## High Turndown Ratio

- 250:1 FS Flow Rates 5 sccm-150 slpm
- 150:1 FS Flow Rates > 150 slpm
- The high turndown (control range) ratio of this biotech-focused MFC controls a wider range of gas flows, reducing the number of MFCs needed to cover your full range.

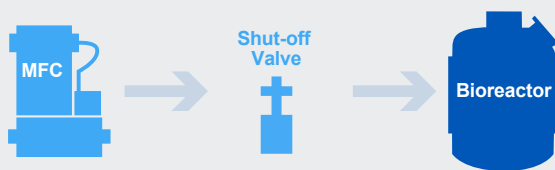
### TRADITIONAL MFC: Low-Flow & High-Flow MFCs Required



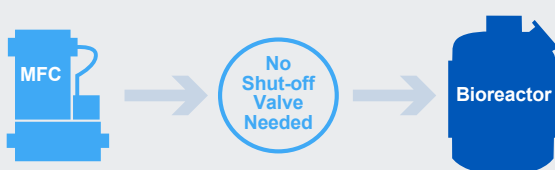
### SLA *Biotech* MFC: Simplified Gas Box Configuration



### TRADITIONAL MFC: Shut-off Valve Required



### SLA *Biotech* MFC: Simplified Gas Delivery System



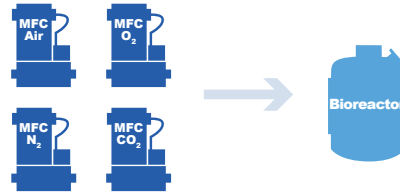
## Extremely Low Leak Rate

- <0.005 sccm for FS Flow Rates 5 sccm -150 slpm
- <15.6 sccm for FS Flow Rates >150 slpm
- An enhanced control valve eliminates the need for a separate shut-off valve in the gas delivery system.
- One less system component reduces design, testing and validation time, and system footprint.

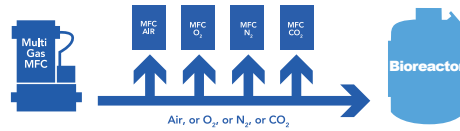
# Pre-calibrated Multi-gas Pages

- When combined with a high turndown ratio, the SLA Series *Biotech* can be field-configured, reducing the number of MFC configurations required by up to 90%.
- Air, CO<sub>2</sub>, N<sub>2</sub> & O<sub>2</sub> flows can be changed insitu to reduce the variety of MFC spares kept in stock.

## TRADITIONAL MFC: Each MFC – Unique Configuration for Every Gas & Range



## SLA *Biotech* MFC: Each MFC – Same Configuration with Wide Turndown & Multi-Gas



# Optional Premium Materials & Certificates

Class VI Elastomers	Certifications
FDA/USP Class VI and ADI-Free O-rings and Valve Seats *Certificate Included	<ul style="list-style-type: none"> <li>• Materials of Construction (wetted path)</li> <li>• 2.1 Material Cert</li> <li>• NIST/ICC Calibration Traceability</li> </ul>

		SLA5800 & SLAMf Series Standard	SLA5800 & SLAMf Series <i>Biotech</i> Performance	SLA5800 & SLAMf Series <i>Biotech</i> Premium
Zero Stability	±0.20% FS per year	✓	✓	✓
Accuracy	±0.9% of SP (20-100% FS) , ±0.18% of FS (<20% FS)	✓	✓	✓
Repeatability	0.20% SP	✓	✓	✓
Advanced Diagnostics	Ensures device is operating within user specified limits for high process yield uptime.	✓	✓	✓
Analog & Digital I/O	DeviceNet, EtherCAT, EtherNet/IP, Profibus, PROFINET, RS-485	✓	✓	✓
High Turndown Ratio	<ul style="list-style-type: none"> <li>• 250:1 FS flow rates 5 sccm -150 slpm</li> <li>• 150:1 all other FS flow rates</li> </ul>		✓	✓
Extremely Low Leak Rate Valve	<ul style="list-style-type: none"> <li>• &lt;0.005 sccm for &lt; 150 slpm</li> <li>• &lt;15.6 sccm for &gt;150 slpm</li> </ul>		✓	✓
Enhanced Sensor Design	Meets industry standards for cleanliness		✓	✓
Pre-calibrated Multi-gas Pages	Air, CO <sub>2</sub> , N <sub>2</sub> , O <sub>2</sub> gas pages can be changed insitu to reduce the variety of spare instruments stocked		✓	✓
Class VI Elastomers	FDA/USP Class VI and ADI- Free O-rings & Valve Seats			✓
Certifications	<ul style="list-style-type: none"> <li>Materials of construction (wetted path)</li> <li>• 2.1 Material Cert</li> <li>• NIST/ICC Calibration Traceability</li> </ul>			✓

# Options Packages

## Performance Package

- Includes enhancements reducing cost of operation

## Premium Package

- Performance Package features plus:
  - Premium materials and associated certificates