

# Mass Flow Controller

Responsive and stable control in 50 ms



High-flow controllers feature frictionless Rolamite valves.



Fast • Repeatable • Stable



The Fastest Flow Controller Company in the World!



[alicat.com/mc](http://alicat.com/mc)

**MCW Series**  
with low pressure drop



**MCE Series**  
for SEMI apps



**MCV Series**  
for SEMI or  
vacuum apps

**MCS Series**  
for aggressive  
gases



See the video!



# Mass Flow Controllers

Hit the mark every time! Control flows with rock-solid stability and responsiveness.

## Making You Faster

- **50-100 ms control response:** stills upstream fluctuations.
- **Accessible PID valve tuning** for best speed and stability.
- **Custom valve orifice sizes:** yields full-range stability.
- **Control mass flow, vol. flow or pressure** with one device.
- **No warm-up:** ready to control process flows in one second.

## Quick Specs

**Accuracy:** 0.8% of the reading (0.4% optional) + 0.2% full-scale repeatability (NIST-traceable).  
**Linear range:** 0.5-100% of full scale (200:1).  
**Multi-gas calibration:** 98-130 gases preloaded, plus COMPOSER™ gas composition firmware.  
**Digital and analog outputs** in multiple formats.  
**All flow data** visible on one screen (setpoint, mass flow, vol. flow, pressure, temperature).  
**Stand-alone unit:** no need for computer or PLC.  
**Lifetime warranty** gives you peace of mind.

## Tailored for You

**MCW** Low Pressure Drop  
Control flows near atmospheric pressure. Max range: 0-500 slpm.

**MCE/V** SEMI Compatible  
Control better with our SEMI compatible MCE and MCV. Max range: 0-20 slpm.

**MCS** Anti-Corrosive  
Withstand corrosion caused by aggressive gases. All ranges.

### Common Options:

- Downstream Valve** optimizes control in vacuum conditions or backpressure applications.
- Precision Dispensing Package** relies on our fast valves to dispense metered amounts of fluid.
- CSA Class 1 Div 2 (ATEX Zone 2) Classification** permits operation in hazardous environments.
- Backlit Color Display** shines in low lighting.
- Industrial communications:** [EtherNet/IP](#), [DeviceNet](#), [PROFIBUS](#), or [Modbus](#)
- LC Liquid Flows**  
Control liquid flows 100-ms control response time. Available in ranges to 0-5 lpm.

## Sample Application

### Gas Sparging for pH Control

Control mass flow rates over a wide flow range with rapid adjustments to accommodate changing flow requirements. Digital feedback from PLC or PC allows real-time changes to the flow rate setpoint to maintain optimal process conditions.

