Low Pressure Drop
Mass Flow

Nearly invisible flow measurement and control for minimal system impact

Pressure drops as low as 4 mbar at full-scale flows

MCW “Whisper” Mass Flow Controller

MW “Whisper” Mass Flow Meter

The Fastest Flow Controller Company in the World!

alicat.com/whisper
“Whisper” Mass Flow Instruments
Mass flow measurement and control so non-intrusive it can run on just a whisper!

Making You Faster
• 5-ms meter response.
• 50-100 ms control response: stills upstream fluctuations.
• Instant-on: ready in 1 second.
• All flow data visible on one screen (flow, pressure, temp).
• Controller PID valve tuning for best speed and stability.
• Digital and analog outputs.

Quick Specs
Pressure drop: 4-40 mbar at full scale.
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 gases preloaded, plus COMPOSER™ gas composition firmware.
Portable meter: up to 18 hours of continuous use, rechargeable via any USB power source.
Lifetime warranty: gives you peace of mind.

Tailored for You

MW Mass Flows Meter
Monitor flows near atmospheric pressure or in airborne environs.

MWB Portable Flow Meter
Easy, no-impact flow verification in just 20 seconds!

MCW Mass Flow Controller
Control flows for leak testing or gas analysis under soft vacuum.

Common Options:
Bidirectional Flow Calibration enables full-scale readings in both flow directions.
Integrated Flow Totalizer provides cumulative readings of total quantity flowed over time.
Downstream Valve optimizes control in vacuum conditions or backpressure applications.
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

Sample Applications

Single-Device Leak Testing and Flow Characterization
Control pressure at the device under test while simultaneously monitoring flow or leak rates as low as 2.5 sµl/min. Low pressure drop reduces stabilization times and ensures accuracy of real-time readings after pressure setpoint changes.

Calibration of an Air Sampling Canister
Rapidly calibrate across multiple ranges and gases without carrying a computer. NIST-traceable high-accuracy calibration makes your portable a transfer standard. Low pressure drop permits calibration of volumetric flow instruments.

See the video!