

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

MW "Whisper" mass flow meter

(shown with optional color display)



MWB "Whisper" portable flow meter

(shown with standard display)



MCW "Whisper" mass flow controller

(shown with downstream valve for soft vacuum flow control)



See the video!



"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.

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 μlm . 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.

