

# 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](http://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  $\mu\text{lm}$ . 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.

