

M-Series Mass Flow Meters and Controllers

HIGH-ACCURACY, MULTIVARIATE, AND INTUITIVE



*NIST-traceable accuracy
to $\pm 0.5\%$ of reading*

*No warm-up
required*

*98+ pre-loaded gas
calibrations*

*5 millisecond
response times*

M-Series Mass Flow Meters and Controllers

MONITOR OR CONTROL GASES EVEN IN CHANGING PROCESS CONDITIONS



M/MC Meter or Controller

High-accuracy, multivariate flow measurement or control in real time.



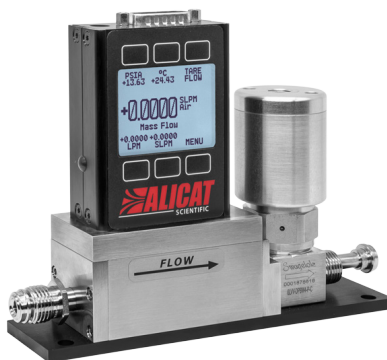
MB Portable Meter

Easily verify flow anywhere with an 18 hour rechargeable battery and an intuitive interface.



MW/MCW Low Pressure Drop

Measure flow near atmospheric pressure with pressure drops as low as 0.07 PSID(4.8 mbarD).



MCV Vacuum Control

Protect your vacuum process with a pneumatic shutoff valve on a controller built for flow or pressure control.

Quick Specifications:

Mass Flow Ranges:

0 SCCM–5000 SLPM

Accuracy:

Up to $\pm 0.5\%$ of reading

Measurement Range:

0.01–100% of full scale

Response Time:

10 ms measurement response;
30ms control response

Multi-gas Calibration:

98+ pre-loaded gases

Repeatability:

Greater of $\pm 0.1\%$ of reading or
 $\pm 0.02\%$ of full scale

Analog Outputs:

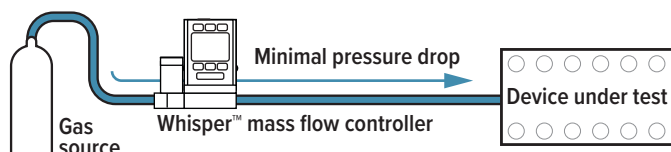
0–5 Vdc, 0–10 Vdc, 4–20 mA

Digital Communications:

RS–232, RS–485, DeviceNet,
EtherCAT, EtherNet/IP, Modbus RTU,
TCP/IP, PROFIBUS

Fast and Accurate Leak Testing

A single Whisper multivariate controller is able to maintain a constant pressure in the device under test (DUT) while providing accurate, real-time mass and volumetric flow readings. When the DUT is subjected to a constant pressure within the closed system, any resulting flow is a direct measure of the DUT's leakage.



Easy Verification and Calibration

Quickly integrate an Alicat into test stands for fast and accurate verification without any warm-up time. For in-field calibrations, a portable, battery-powered flow meter can be easily added into a flow line at any point for rapid system verification.



A Halma company

alicat.com/flow