BASIS gas flow instruments for OEM projects

Tiny • Durable • Dosing-Ready

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Specifications

Mass Flow Accuracy

Compatible gases	Air, N_2, O_2, CH_4	He, H_2	Ar	CO_2, N_2O
Mass flow accuracy	± 1.5% reading or ± 0.2% full scale	± 1.8% full scale	± 1.5% reading or ± 0.5% full scale	100 SCCM – 2 SLPM: ± 1.5% reading or ± 0.5% full scale 5 SLPM – 20 SLPM: ± 2.0% reading or ± 1.0% full scale 50SLPM – 100 SLPM: ± 3.0% reading or ± 2.0% full scale

Sensor and Control Performance

Repeatability (2σ)	± 0.25% reading or ± 0.05% of full scale
Control and measurement range	0.1% – 100% of full scale (1,000:1 turndown ratio)
Temperature sensitivity	Mass flow zero and span shift: 0.05% of reading per °C from calibration conditions
Operating temperature	0 – 50 °C
Temperature accuracy	±1.5 °C
Typical control response time	As fast as 100ms
Typical warm up time	1 minute

Max Ranges	Dimensions			Weight
	Depth	Width	Height	
100 SCCM – 2 SLPM	0.88″	2.70″	1.55″	≈ 4.0 oz
	22.23 mm	68.6 mm	39.4 mm	≈ 116 g
5 SLPM – 20 SLPM	1.00″	3.31″	1.83″	≈ 6.0 oz
	25.4 mm	84.0 mm	46.5 mm	≈ 171 g
50 SLPM – 100 SLPM	1.38″	4.52″	2.06″	≈ 12.5 oz
	35 mm	114.8 mm	52.3 mm	≈ 355 g

Automate your manual process. Eliminate guesswork and manual adjustments

Run sophisticated flow-control scripts using fast, robust MODBUS, ASCII, or use analog control

LED indicator shows power, active communications, and error states

Common industrial process port options

Dosing and batches with a built-in totalizer

Calibrated to flow any of 9 gases, including hydrogen

Compact and durable metal flow body

MFCs with embedded valve

Applications

Sophisticated features

Communicates with our free FlowVision 2.0 software

Powerful companion Flowvision 2.0 software for programming scripts, collecting data, and connecting multiple instruments in a process. Or use the built-in MODBUS or ASCII protocols.

Built-in flow temperature measurement—get better, more relevant process data.

Programmable setpoint ramping—let the instrument do the heavy lifting.

Valve overrides—protect and control your process.

Programmable communication watchdog—automated valve close when communication is lost.

Advanced statistics reporting such as min, max, average, std deviation—more data, better insights.

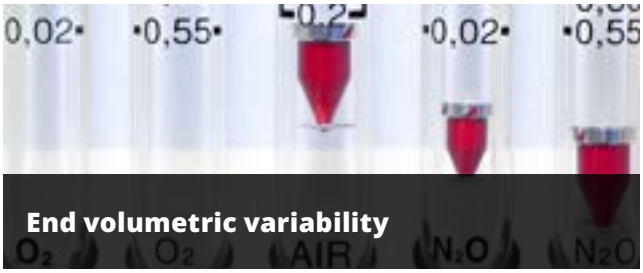
Customize configurations

Talk to our engineers about configuring to suit your project

Rapid prototype of compact manifolds and gas mixing designs

Custom down ports or machined fittings

Custom gas or aerosol mixing



BASIS MFCs batch function ensures proportional rates to make gas mixtures. Get the right molar mix regardless of changes in upstream/downstream pressure, or environmental conditions. For atomizing and carrier gases, ensure a consistent flow.

Chemical processes

Repeatable and scalable flow control is crucial to achieving high titers from upstream bio processes. BASIS flow controllers easily integrate into data systems.

Analytical equipment

Enable full system stability and ensure accurate compound detection by tightly regulating carrier gas flow.

Industrial processes

BASIS mass flow devices are used in burners to control gases that heat the glass, as well as with shielding gases, and controlling thin film deposition.