

## Technical Data for Moderate Flow MS Mass Flow Meters

### 0 to 50 SLPM Full Scale through 0 to 250 SLPM Full Scale

The following specifications are for the standard configuration of the Alicat product as shipped from the factory. There are many low-cost customization options available.

Specification	Mass Meter	Description
Accuracy	± (0.8% of Reading + 0.2% of Full Scale)	At calibration conditions after tare
High Accuracy Option	± (0.4% of Reading + 0.2% of Full Scale)	At calibration conditions after tare
Accuracy: Bi-directional Meters Only	± (0.8% of reading + 0.2% of total span positive full scale to negative full scale)	At calibration conditions after tare
Repeatability	± 0.2%	Full Scale
Operating Range	1% to 100% Full Scale	Measure
Typical Response Time	10	Milliseconds (Adjustable)
Standard Conditions (STP)	25°C & 14.696PSIA	Mass Reference Conditions
Operating Temperature	-10 to +50	°Celsius
Zero Shift	0.02%	Full Scale / °Celsius / Atm
Span Shift	0.02%	Full Scale / °Celsius / Atm
Humidity Range	0 to 100%	Non-Condensing
Measurable Flow Rate	128%	Full Scale
Maximum Pressure	145	PSIG
Output Signal Digital	Mass Flow, Volumetric Flow, Pressure & Temperature	RS-232 Serial or RS-485 Serial or PROFIBUS or DeviceNet <sup>1</sup>
Output Signal Analog	Mass Flow	0-5Vdc
Optional Output Signal Secondary Analog	Mass Flow, Volumetric Pressure or Temperature	0-5 Vdc or 0-10Vdc or 4-20mA
Electrical Connections	8 Pin	Mini-DIN
Supply Voltage	7 to 30 Vdc (15-30Vdc for 4-20mA outputs)	
Supply Current	0.040 Amp (+ output current on 4-20mA)	
Mounting Attitude Sensitivity	0%	Tare after installation
Warm-up Time	< 1	Second
Wetted Materials <sup>2</sup>	316LSS, FFKM (Kalrez) standard; Viton, EPDM, Buna, Neoprene as needed for some gases.	

1. If selecting PROFIBUS or DeviceNet no analog signal is available. PROFIBUS / DeviceNet units do not have the display. See PROFIBUS or DeviceNet specifications for PROFIBUS or DeviceNet supply voltages and currents.  
2. If your application demands a different material, please contact [Info@alicatscientific.com](mailto:Info@alicatscientific.com) or 888-290-6060 for available options.

### Mechanical Specifications

Full Scale Flow Mass Meter	Mechanical Dimensions	Process Connections <sup>1</sup>	Pressure Drop <sup>2</sup> (PSID)
50SLPM	5.1"H x 4.0"W x 1.6"D	1/4" NPT Female	2.0
100SLPM			2.5
250SLPM	5.7"H x 4.0"W x 1.6"D	1/2" NPT Female	4.0

1. Compatible with Beswick®, Swagelok® tube, Parker®, face seal, push connect and compression adapter fittings.  
2. Venting to atmosphere. Lower Pressure Drops Available, please contact [Info@alicatscientific.com](mailto:Info@alicatscientific.com) or 888-290-6060.

50SLPM approximate shipping weight: 2.2 lb.  
100SLPM approximate shipping weight: 2.4 lb.  
250SLPM approximate shipping weight: 3.2 lb.