

Technical Data for Micro-Flow and Ultra-Low Flow M Mass Flow Meters

0 to 0.5SCCM Full Scale through 0 to 50SCCM 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, Volume Flow, Pressure & Temperature	RS-232 Serial or RS-485 Serial or PROFIBUS or DeviceNet ¹
Output Signal Analog	Mass Flow	0-5Vdc
Optional Output Signal Secondary Analog	Mass Flow, Volumetric Flow Pressure or Temperature	0-5 Vdc or 0-10Vdc or 4-20mA
Electrical Connections	8 Pin Mini-DIN or DB-15	
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 ²	303 & 302 Stainless Steel, Viton®, Silicone RTV (Rubber), Glass Reinforced Nylon, Aluminum.	

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 Application Assistance for available options.

Mechanical Specifications

Full Scale Flow Mass Meter	Mechanical Dimensions	Process Connections ¹	Pressure Drop ² (PSID)
0.5SCCM to 1SCCM	3.9"H x 2.4"W x 1.1"D	M-5 (10-32) Female Thread*	1.0
2SCCM to 50SCCM			1.0

Units ≤50SCCM F.S. are shipped with M-5 (10-32) Male Buna-N O-ring face seal to 1/8" Female NPT fittings.

These adaptor fittings were selected for customer convenience in process connection. It should be noted that the 1/8" Female NPT introduces additional dead volume. To minimize dead volume, please see [Accessories](#) for the 10-32 Male to 1/8"OD compression fitting.

- Compatible with Beswick®, Swagelok® tube, Parker®, face seal, push connect and compression adapter fittings.
- Venting to atmosphere. Lower Pressure Drops Available, please contact Application Assistance.

0.5SCCM to 50SCCM approximate shipping weight: 0.8lb