

## Technical Data for Low Flow MC Mass Flow Controllers

0 to 100SCCM Full Scale through 0 to 20SLPM Full Scale

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

Specification	Mass Controller	Description
Accuracy	$\pm (0.8\% \text{ of Reading} + 0.2\% \text{ of Full Scale})$	At calibration conditions after tare
High Accuracy Option	$\pm (0.4\% \text{ of Reading} + 0.2\% \text{ of Full Scale})$	At calibration conditions after tare
Repeatability	$\pm 0.2\%$	Full Scale
Operating Range	1% to 100% Full Scale	Measure and Control
Typical Response Time	100	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
Controllable Flow Rate	102.4%	Full Scale
Maximum Pressure	145	PSIG
Input /Output Signal Digital	Mass Flow, Volumetric Flow, Pressure & Temperature	RS-232 Serial or RS-485 Serial or PROFIBUS or DeviceNet <sup>2</sup>
Input / Output Signal Analog	Mass Flow	0-5Vdc
Optional Input / 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	12 to 30 Vdc (15-30Vdc for 4-20mA outputs)	
Supply Current	0.250Amp (at 12 Vdc, declining with increased supply voltage)	
Mounting Attitude Sensitivity	None	
Warm-up Time	< 1	Second
Wetted Materials <sup>2</sup>	303 & 302 Stainless Steel, Viton®, Silicone RTV (Rubber), Glass Reinforced Nylon, Aluminum, Brass, 430FR Stainless Steel, Silicon, Glass.	
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 Controller	Mechanical Dimensions	Process Connections <sup>1</sup>	Pressure Drop <sup>2</sup> (PSID)
100SCCM to 500SCCM	4.1"H x 3.6"W x 1.1"D	1/8" NPT Female	1.0
1SLPM			1.5
2SLPM			3.0
5SLPM			2.0
10SLPM			5.5
20SLPM			20.0
1. Compatible with Beswick®, Swagelok® tube, Parker®, face seal, push connect and compression adapter fittings. 2. Lower Pressure Drops Available, Please contact Application Assistance.			

100SCCM to 20SLPM approximate weight: 1.2lb