

## Technical Data for Micro Flow Mass & Volumetric Flow Controllers

### 0-0.5SCCM Full Scale up to 0-50SCCM Full Scale

The following specifications are for the standard, feature rich configuration of the Alicat product as shipped from the factory. There are many low-cost customization options available. For dimensions see catalog page 50.

#### Operating Specifications

Specification	Mass Controller	Volumetric Controller	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
Repeatability	± 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	Not Applicable	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	125	125 <sup>1</sup>	PSIG
Input /Output Signal Digital	Mass, Volume, Pressure & Temperature	Volumetric Flow	RS-232 Serial
Input / Output Signal Analog	Mass Flow	Volumetric Flow	0-5Vdc
Optional Input / Output Signal Secondary Analog	Mass, Volumetric Pressure or Temperature	Volumetric Flow	0-5 Vdc or 0-10Vdc or 4-20mA
Electrical Connections	8 Pin		Mini-DIN
Supply Voltage	12 to 18 Vdc (15-30Vdc for 4-20mA outputs) <sup>2</sup>		
Supply Current	0.250 Amp		
Mounting Attitude Sensitivity	0%		
Warm-up Time	< 1		Second
Wetted Materials	303 & 302 Stainless Steel, Viton®, Silicone RTV (Rubber), Glass Reinforced Nylon, Aluminum, Brass, 410 Stainless Steel.		
<ol style="list-style-type: none"> <li><b>Volumetric controllers only:</b> Operating pressure limitations determined by Reynolds number thresholds. For operating pressures &gt;10PSIG, please contact Application Assistance for more details.</li> <li>24 volt applications should specify 24 volt coils.</li> </ol>			

#### Mechanical Specifications

Full Scale Flow Mass Controller	Full Scale Flow Vol. Controller	Mechanical Dimensions	Process Connections <sup>1</sup>	Pressure Drop <sup>2</sup> (PSID)
0.5SCCM to 1SCCM	0.5CCM to 1CCM	3.9"H x 3.5"W x 1.1"D	<b>10-32 Female Thread*</b>	0.5
2SCCM to 50SCCM	2CCM to 50CCM			1.0
<p><b>* Units ≤50SCCM F.S. are shipped with 10-32 Male Buna-N O-ring face seal to 1/8" Female NPT fittings.</b></p> <p>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 <a href="#">Accessories</a> for the 10-32 Male to 1/8"OD compression fitting.</p> <ol style="list-style-type: none"> <li>Compatible with Beswick®, Swagelok® tube, Parker®, face seal, push connect and compression adapter fittings.</li> <li>Lower Pressure Drops Available, Please contact Application Assistance.</li> </ol>				