

Technical Data for Alicat **LC & LCR** Water Flow Controllers

0 – 5 ccm Full Scale through 0 – 5 lpm Full Scale



Tel: 888-290-6060

www.alicat.com/liquid

Alicat LC and LCR-Series water flow controllers display both water flow and water temperature. An optional pressure sensor is also available.

Standard Specifications (Contact Alicat for available options.)

Performance	LC Controllers	LCR Controllers
Available Ranges	5 ccm to 500 ccm	1 lpm to 5 lpm
Accuracy at calibration conditions after tare	± 2% Full Scale	
Repeatability	± 2% Full Scale	
Zero Shift and Span Shift	0.02% Full Scale / °Celsius / Atm	
Operating Range / Turndown Ratio	2% to 100% Full Scale / 50:1 Turndown	
Maximum Flow Rate	102.4% FS Controllable	
Typical Response Time	100 ms (Adjustable)	
Warm-up Time	< 1 Second	

Operating Conditions	LC Controllers	LCR Controllers
Operating Temperature	+10 to +50 °Celsius	
Maximum Pressure	150 psig	
Mounting Attitude Sensitivity	None	Mount with valve cylinder vertical & upright
Valve Type	Normally Closed	
Ingress Protection	IP40	
Wetted Materials	LC, LCR: 430FR Stainless Steel, 302 & 303 Stainless Steel, 316L Stainless Steel, Viton®, FFKM. LCR Controllers Add 416 Stainless Steel, Delrin®. If your application demands a different material, please contact Alicat.	

Communication / Power	LC Controllers	LCR Controllers
Monochrome LCD or Color TFT Display with integrated touchpad	Simultaneously displays Flow and Temperature (optional Pressure sensor available)	
Digital Input / Output Signal ¹ Options	RS-232 Serial / RS-485 Serial / PROFIBUS ³	
Analog Input / Output Signal ² Options	0-5 Vdc / 1-5 Vdc / 0-10 Vdc / 4-20 mA	
Optional Secondary Analog Input / Output Signal ²	0-5 Vdc / 1-5 Vdc / 0-10 Vdc / 4-20 mA	
Electrical Connection Options	8 Pin Mini-DIN / 9-pin D-sub (DB9) / 15-pin D-sub (DB15) / 6 pin locking	
Supply Voltage	12-30 Vdc (15-30 Vdc for 4-20 mA outputs)	24-30 Vdc
Supply Current	0.250 Amp	0.750 Amp

1. The **Digital Output Signal** communicates Flow and Temperature (optional Pressure sensor available)
2. The **Analog Output Signal** and **Optional Secondary Analog Output Signal** communicate your choice of Flow or Temperature
3. If selecting **PROFIBUS**, no analog signal is available. PROFIBUS units do not have the display. See PROFIBUS specifications for PROFIBUS supply voltages and currents. (www.alicat.com/profibus)

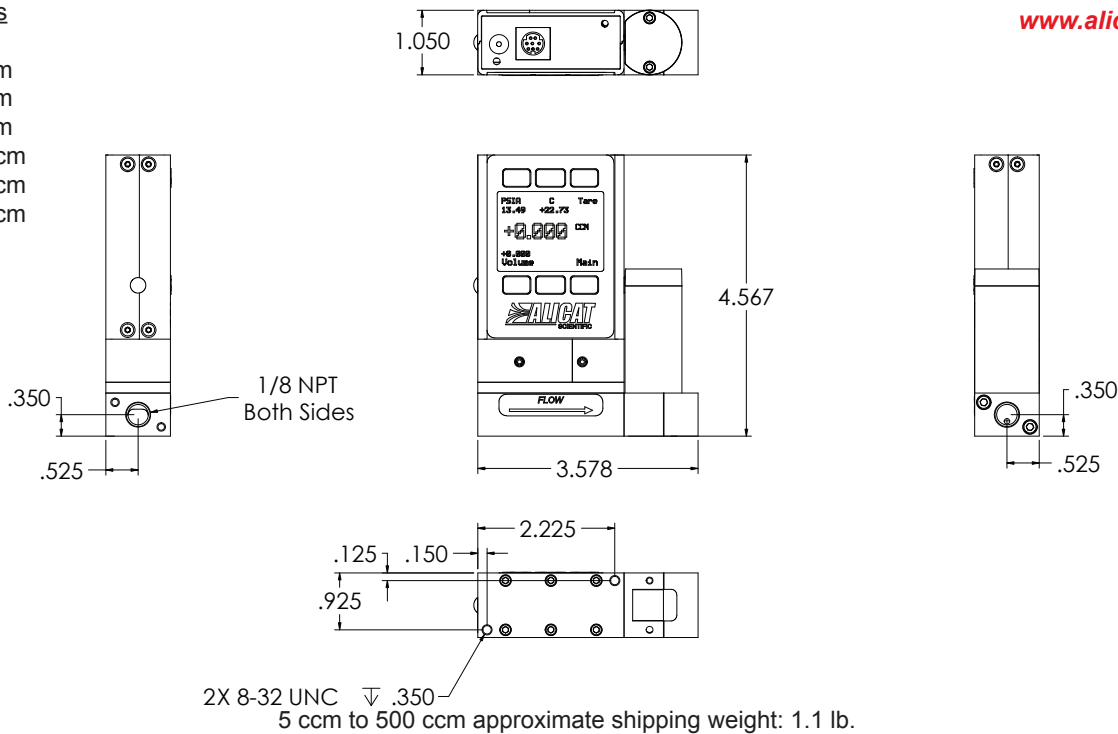
Range Specific Specifications

Full Scale Flow	Pressure Drop ¹ at FS Flow (PSID)	Mechanical Dimensions	Process Connections ²
LC Controllers			
5 ccm to 50 ccm	5.0	4.6"H x 3.6"W x 1.1"D	1/8" NPT Female
100 ccm	5.0		
200 ccm to 500 ccm	7.5		
LCR Controllers			
1 lpm	4.0	5.7"H x 7.7"W x 2.3"D	1/4"NPT Female
2 lpm	4.0		
5 lpm	10.0		

1. Lower Pressure Drops Available, please contact Alicat.
2. Compatible with Beswick®, Swagelok® tube, Parker®, face seal, push connect and compression adapter fittings. VCR and SAE connections upon request.

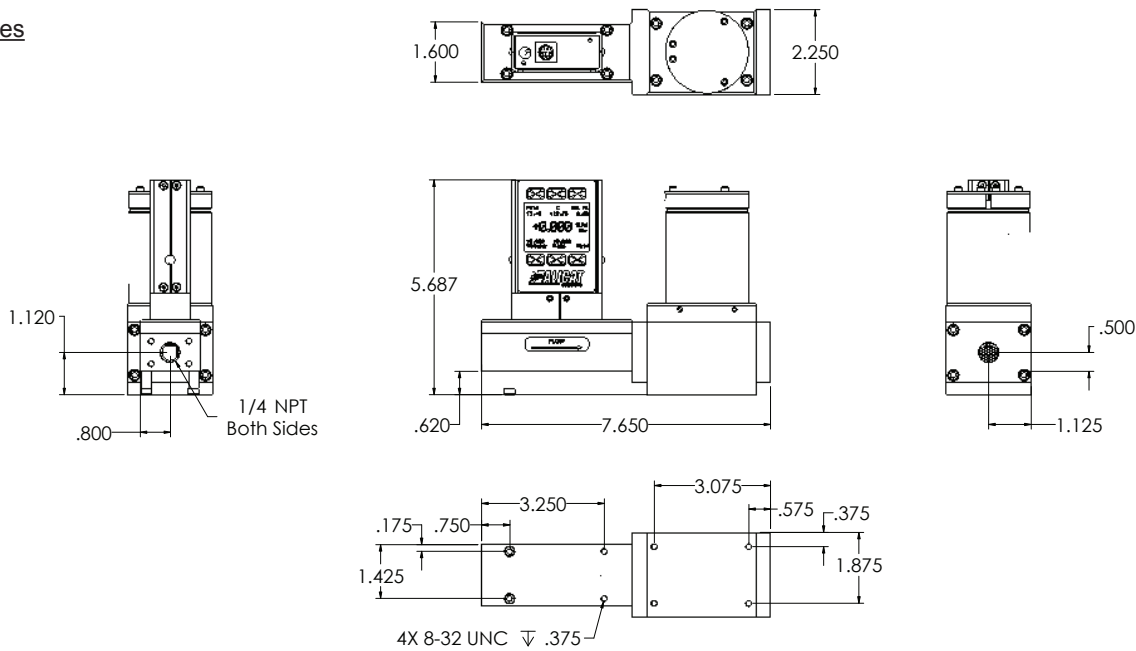
LC-Series

- 0 - 5 ccm
- 0 - 10 ccm
- 0 - 20 ccm
- 0 - 50 ccm
- 0 - 100 ccm
- 0 - 200 ccm
- 0 - 500 ccm



LCR-Series

- 0 - 1 lpm
- 0 - 2 lpm
- 0 - 5 lpm



1 lpm to 5 lpm approximate weight: 9.0 lb.