

Configuration Data

Electronic Metering Pumps

Control & Output Mode

Manual Control

Speed (stroking frequency) and stroke length manually adjustable.

Model A94 1 - 358SI

A14 ------ 0.58 GPH (2.2 l/h) --- 250 psi(17.3 Bar) A15 ----- 1.00 GPH (3.8 l/h) --- 110 psi (7.6 Bar) A16 ----- 2.00 GPH (7.6 l/h) --- 50 psi (3.5 Bar) A17 ----- 0.42 GPH (1.6 l/h) --- 140 psi (9.7 Bar) A18 ----- 0.75 GPH (2.8 l/h) --- 80 psi (5.5 Bar)

Instrument Responsive / Manual Control

Manual adjustment features of Series A1 plus switch conversion to external control for automatic systems. A74 ------ 0.58 GPH (2.2 l/h) -- 250 psi(17.3 Bar) A75 ------ 1.00 GPH (3.8 l/h) -- 110 psi (7.6 Bar) A76 ----- 2.00 GPH (7.6 l/h) -- 50 psi (3.5 Bar) A77 ----- 0.42 GPH (1.6 l/h) -- 140 psi (9.7 Bar) A78 ------ 0.75 GPH (2.8 l/h) --- 80 psi (5.5 Bar)

Instrument Responsive/Microprocessor

External 4-20mA or pulse ÷ or x direct. Manual stroke control

A94 ------ 0.58 GPH (2.2 l/h) --- 250 psi (17.3 Bar) A95 ------ 1.00 GPH (3.8 l/h) --- 110 psi (7.6 Bar) A96 ------ 2.00 GPH (7.6 l/h) --- 50 psi (3.5 Bar) A97 ----- 0.42 GPH (1.6 l/h) --- 140 psi (9.7 Bar)

Voltage Code

1 ------ 120 VAC, US Plug 2 ----- 240 VAC, US Plug 3 ----- 220-240 VAC, DIN Plug 5 ----- 240-250 VAC, UK Plug 6 ----- 240-250 VAC, Aust./NZ Plug 7 ----- 220-240 VAC, Swiss Plug

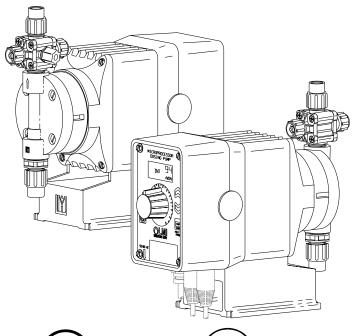
Liquid End

See next page for complete liquid end specifications and selection.

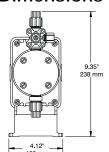
Specifications

Series	Strokes Per Minute (Adjustable) Min Max		Stroke Length (Adjustable) Recommended Minimum	Average Input Power @ Max Speed	Shipping Weight
A14, A74, A94* A15, A75, A95* A16, A76, A96*	1	100	20%	22 watts	10 lbs (4.55 kg)
A17, A77, A97* A18, A78	1	100	30%		

*Series 9 pumps may be programmed for strokes per hour for lower outputs.

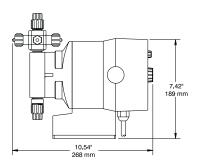


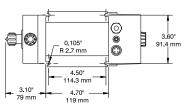
Dimensions



Dimensions shown are maximums for largest available Liquid End.

Dimensions will vary depending on Liquid End selected.







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Configuration Data & Materials of Construction

Drive	Liquid	Size		Materials of Construction			Tubing & Connections		
Assembly	End No.	Code	Head & Fittings	Balls	Liquifram™	Check Valve	Accessory	Discharge Suction	
	458SI [†]	0.5	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
A97 🔲 -	450FI	0.5	Acylic / PVC	PTFE	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
A94 🔲 -	450SI [†]	0.5	Acrylic / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
A77 🔲 -	358SI [†]	0.5	PVC /PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
A74 🔲 -	353SI [†]	0.5	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / PTFE	4FV	PE .250" O.D.	
A17 🔲 -	352SI [†]	0.5	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
A14 -	155HV	0.5	Polypropylene	316 S.S.	Fluorofilm™	PTFE		PE .5" O.D. Vinyl .938" O.D.	
	155S**	0.5	Polypropylene	Ceramic	Fluorofilm™	PTFE	4FV	PE .250" O.D.	
	156HV	0.5	Acrylic/PP	316 S.S.	Fluorofilm™	Hypalon®		PE .5" O.D. Vinyl .938" O.D.	
	257	0.5	316 S.S.	316 S.S.	Fluorofilm™	316S.S.		Pipe 1/4" NPT M	
								1	
	498SI [†]	0.9	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A95 🔲 -	490SI†	0.9	Acrylic / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A78	490FI	0.9	Acrylic / PVC	PTFE	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A75	398SI [†]	0.9	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A18 -	392SI [†]	0.9	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A15 -	393SI [†]	0.9	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / PTFE	4FV	PE.375" O.D.	
	85HV	0.9	Polypropylene	316 S.S.	Fluorofilm™	PTFE		PE .5" O.D. Vinyl .938" O.D	
	86HV	0.9	Acrylic / PP	316 S.S.	Fluorofilm™	Hypalon®		PE .5" O.D. Vinyl .938" O.D	
	89	0.9	UHMW PE	Ceramic	Hypalon®	Hypalon®		PE .5" O.D. Vinyl .5" O.D.	
	95S**	0.9	Polypropylene	Ceramic	Fluorofilm™	PTFE	4FV	PE .375" O.D.	
	297	0.9	316 S.S.	316 S.S.	Fluorofilm™	316 S.S.		Pipe 1/4" NPT M	
	468SI [†]	1.8	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE.375"O.D	
	460SI [†]	1.8	Acrylic / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	460FI	1.8	Acrylic / PVC	PTFE	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A96 🔲 -	368SI [†]	1.8	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A76 🔲 -	362SI [†]	1.8	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
A16 -	363SI [†]	1.8	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / PTFE	4FV	PE .375" O.D.	
	65S**	1.8	Polypropylene	Ceramic	Fluorofilm™	PTFE	4FV	PE .375" O.D.	
1	75HV	1.8	Polypropylene	316 S.S.	Fluorofilm™	PTFE		PE .5" O.D. Vinyl .938" O.D.	
	76HV	1.8	Acrylic / PP	316 S.S.	Fluorofilm™	Hypalon®		PE .5" O.D. Vinyl .938" O.D.	
	79	1.8	UHMW PE	Ceramic	Hypalon®	Hypalon®		PE .5" O.D. Vinyl .5" O.D.	
	277	1.8	316 S.S.	316 S.S.	Fluorofilm™	316 S.S.		Pipe 1/4" NPT M	

See front page for voltage code specifications.

Fluorofilm $^{\rm TM}$ is a copolymer of PTFE and PFA. Polyprel $^{\rm 8}$ is an elastomeric PTFE copolymer.

Polyprel is a registered trademark of Liquid Metronics Incorportaed. Fluorofilm and Liquifram are trademarks of Liquid Metronics Incorporated. Hypalon is a registered trademark of E. I. du Pont de Nemours & Co., Inc.

Output Information

	Gallons	per Hour	Liters p	er Hour	mL/cc pe	er Minute	mL/cc p	oer Stroke	Maximum Injection
Series	Min	Max	Min	Max	Min	Max	Min	Max	Pressure
A94*, A74*, A14	0.001	0.58	0.004	2.2	0.07	37	0.07	0.37	250 psi (17.3 Bar)
A95*, A75*, A15	0.002	1.00	0.008	3.8	0.13	63	0.13	0.63	110 psi (7.6 Bar)
A96*, A76*, A16	0.004	2.00	0.015	7.6	0.25	126	0.25	1.26	50 psi (3.5 Bar)
A97*, A77*, A17	0.001	0.42	0.005	1.6	0.08	26	0.08	0.26	140 psi (9.7 Bar)
A78*, A18	0.002	0.75	0.009	2.8	0.14	47	0.14	0.47	80 psi (5.5 Bar)

 $^{^{\}star} \,\, \text{Minimum output is based on one stroke per minute.} \,\, \text{Minimum output can be reduced further in external mode.} \,\, \text{Series A9 pumps may be programmed for strokes per hour for lower outputs.} \,\,$

^{**} These Liquid Ends are available without a 4-FV.

[†] To specify ¼" NPT male, change 'I' to 'P'. To specify black, UV resistant tubing, change 'I' to 'U'. To specify Bleed 4FV, change 'S' to 'B'. To specify 3FV, change 'S' to'T'.

³FV indicates that the pump is equipped with an LMI Three Function Valve (pressure relief, priming aid, line drain).

FV indicates that the pump is equipped with an LMI Four Function Valve. This diaphragm type, anti-syhon/pressure relief valve is installed on the pump head. It provides anti-syphon protection and aids in priming, even under pressure.