

# Data Sheet

## Series P



### Configuration Data

Model **P14 1 -358SI**

#### Manual Control

Speed (stroking frequency) fixed and stroke length manually adjustable.

- P02 --- 0.20 GPH (0.79 l/h) --- 150 psi (10.3 Bar)
- P03 --- 0.42 GPH (1.6 l/h) --- 110 psi (7.6 Bar)
- P04 --- 0.58 GPH (2.2 l/h) --- 250 psi (17.2 Bar)
- P05 --- 1.00 GPH (3.8 l/h) --- 110 psi (7.6 Bar)
- P06 --- 2.00 GPH (7.6 l/h) --- 50 psi (3.4 Bar)

#### Dual Manual Control

Speed (stroking frequency) and stroke length manually adjustable.

- P12 --- 0.20 GPH (0.79 l/h) --- 150 psi (10.3 Bar)
- P13 --- 0.42 GPH (1.6 l/h) --- 110 psi (7.6 Bar)
- P14 --- 0.58 GPH (2.2 l/h) --- 250 psi (17.2 Bar)
- P15 --- 1.00 GPH (3.8 l/h) --- 110 psi (7.6 Bar)
- P16 --- 2.00 GPH (7.6 l/h) --- 50 psi (3.4 Bar)

#### Instrument Responsive / Manual

Manual adjustment features of Series P1 plus switch conversion to external control for automatic systems.

- P74 --- 0.58 GPH (2.2 l/h) --- 250 psi (17.2 Bar)
- P75 --- 1.00 GPH (3.8 l/h) --- 110 psi (7.6 Bar)
- P76 --- 2.00 GPH (7.6 l/h) --- 50 psi (3.4 Bar)

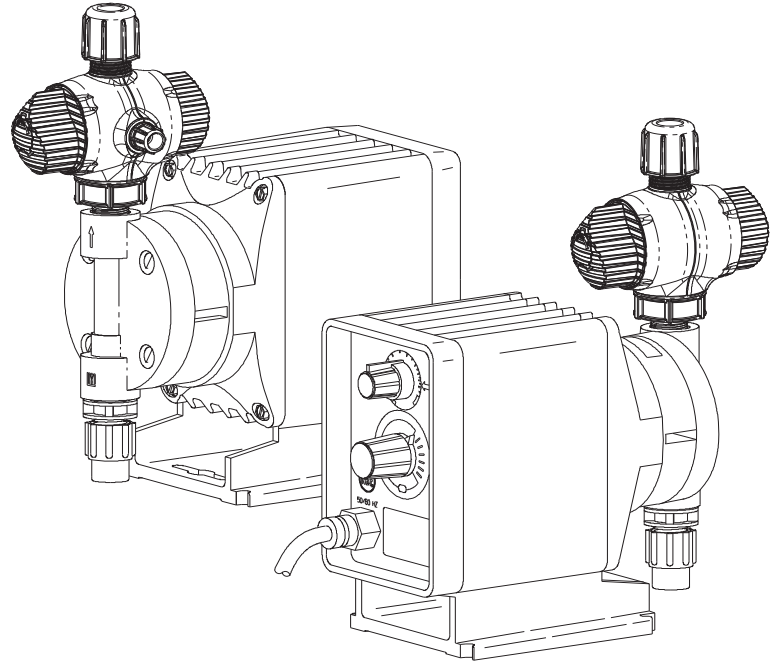
#### Voltage Code

- 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 VAC, Swiss Plug

#### Liquid End

See next page for complete liquid end specifications and selection.

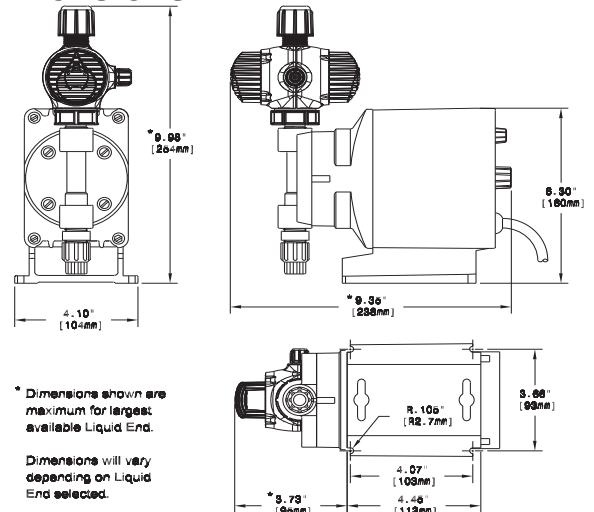
## Electronic Metering Pumps



### Specifications

Series	Strokes Per Minute (Adjustable)		Stroke Length (Adjustable) Recommended Minimum	Average Input Power @ Max Speed	Shipping Weight	
	Min	Max				
P02, P03	fixed - 60		30%	22 watts	7.6 lbs (3.5 kg)	
P04, P05	fixed - 100		20%			
P06	fixed - 100		20%			
P12, P13	.6	60	30%			
P14, P74	1		100			20%
P15, P75	1		100			20%
P16, P76	1		100	20%		

### Dimensions



201 Ivyland Road  
Ivyland, PA 18974 USA  
TEL: (215) 293-0401  
FAX: (215) 293-0445  
<http://www.lmipumps.com>

## Standard Liquid Ends Configuration Data & Materials of Construction

Drive Assembly	Liquid End No.	Size Code	Head & Fittings	Balls	Materials of Construction			Tubing & Connections	
					Liquifram™	Check Valve	Accessory	Discharge	Suction
P02 P04 P12 P14 P74	458SI†	0.5	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
	450SI†	0.5	Acrylic/PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
	459SI†	0.5	Acrylic/PVDF	PTFE	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
	358SI†	0.5	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
	353SI†	0.5	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / PTFE	4FV	PE .250" O.D.	
	352SI†	0.5	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
	455SI†	0.5	Polypropylene	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
	257	0.5	316 S.S.	316 S.S.	Fluorofilm™	316 S.S.		Pipe 1/4" NPT M	
P03 P05 P13 P15 P75	498SI†	0.9	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	490SI†	0.9	Acrylic/PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	499SI†	0.9	Acrylic/PVC	PTFE	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	398SI†	0.9	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	393SI†	0.9	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / PTFE	4FV	PE .375" O.D.	
	392SI†	0.9	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	495SI†	0.9	Polypropylene	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" O.D.	
	297	0.9	316 S.S.	316 S.S.	Fluorofilm™	316 S.S.		Pipe 1/4" NPT M	
P06 P16 P76	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.	
	368SI†	1.8	PVC / PVC	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	363SI†	1.8	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / PTFE	4FV	PE .375" O.D.	
	362SI†	1.8	PVDF / PVDF	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .375" O.D.	
	465SI†	1.8	Polypropylene	Ceramic	Fluorofilm™	PVDF / Polyprel®	4FV	PE .250" 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.

† Standard tubing connections. To specify black, UV resistant tubing, change 'I' to 'U'. 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).

4FV indicates that the pump is equipped with an LMI Four Function Valve. This diaphragm type, anti-syphon/pressure relief valve is installed on the pump head. It provides anti-syphon protection and aids in priming, even under pressure.

Fluorofilm™ is a copolymer of PTFE and PFA. Polyprel® is an elastomeric PTFE copolymer.

Polyprel® is a registered trademark of Milton Roy, LLC. Fluorofilm™ and Liquifram™ are trademarks of Milton Roy, LLC. Hypalon® is a registered trademark of E. I. du Pont de Nemours & Co., Inc.

### Output Information - Standard Liquid Ends

Series	Gallons per Hour		Liters per Hour		mL/cc per Minute		L/cc per Stroke		Maximum Injection Pressure	
	Min	Max	Min	Max	Min	Max	Min	Max		
P02	0.063	0.21	0.237	0.79	3.94	13	0.07	0.22	150 psi	(10.3 Bar)
P03	0.125	0.42	0.473	1.6	7.89	26	0.13	0.44	110 psi	(7.6 Bar)
P04	0.117	0.58	0.442	2.2	7.36	37	0.07	0.37	250 psi	(17.2 Bar)
P05	0.200	1.0	0.757	3.8	12.62	63	0.13	0.63	110 psi	(7.6 Bar)
P06	0.400	2.0	1.510	7.6	25.23	126	0.25	1.26	50 psi	(3.5 Bar)
P12	0.001	0.21	0.002	0.79	0.04	13	0.07	0.22	150 psi	(10.3 Bar)
P13	0.001	0.42	0.005	1.6	0.08	27	0.13	0.44	110 psi	(7.6 Bar)
P14, P74	0.001	0.58	0.004	2.2	0.07	37	0.07	0.37	250 psi	(17.2 Bar)
P15, P75	0.002	1.0	0.008	3.8	0.13	63	0.13	0.63	110 psi	(7.6 Bar)
P16, P76	0.004	2.0	0.015	7.6	0.25	126	0.25	1.26	110 psi	(7.6 Bar)

### AUTOPRIME™ Liquid Configuration Data and Materials of Construction

Liquid End No.	Size Code	Head & Fittings	Materials of Construction			Accessory	Tubing & Connections	
			Balls	Liquifram™	Check Valve		Discharge	Suction
D50HI	0.5	Acrylic / PVC	Ceramic*	Fluorofilm™	PVDF / Polyprel®	4FV	PE 0.250" O.D.	
D58HI	0.5	PVC / PVC	Ceramic*	Fluorofilm™	PVDF / Polyprel®	4FV	PE 0.250" O.D.	
D90HI	0.9	Acrylic / PVC	Ceramic*	Fluorofilm™	PVDF / Polyprel®	4FV	PE 0.375" O.D.	
D98HI	0.9	PVC / PVC	Ceramic*	Fluorofilm™	PVDF / Polyprel®	4FV	PE 0.375" O.D.	
D60HI	1.8	Acrylic / PVC	Ceramic*	Fluorofilm™	PVDF / Polyprel®	4FV	PE 0.375" O.D.	
D68HI	1.8	PVC / PVC	Ceramic*	Fluorofilm™	PVDF / Polyprel®	4FV	PE 0.375" O.D.	

\*Note: AUTOPRIME™ cartridge ball is Hastelloy.

### Output Information - AUTOPRIME™ Liquid Ends (Liquid end models beginning with "D")

AUTOPRIME™ liquid ends have 3 check valves: Suction on the bottom; Discharge on the front; Autoprime bleed on the top. By design, a repeatable portion of the process fluid continuously bleeds through the top check valve to be returned to the chemical supply. The result is the assurance that any gas in the head is automatically relieved thus eliminating air-binding. The maximum output per the tables above is reduced to account for the continuous bleed.

Series	Maximum Output				Maximum Pressure	
	GPH	Liters/hr	mL/cc per minute	mL/cc per stroke	PSI	Bar
P_2	0.13	0.49	8.2	0.14	150 psi	10.3
P_3	0.33	1.25	20.8	0.35	110 psi	7.6
P_4	0.42	1.6	26.5	0.26	250 psi	17.2
P_5	0.85	3.2	53.6	0.54	110 psi	7.6
P_6	1.85	7.0	116.7	1.17	50 psi	3.5