

# Dosing pump – Roytronics P+

- Maximum Flow rate: 15.1 l/h • Maximum Pressure: 17.2 kg/cm<sup>2</sup>g • Electro Magnetically Actuated Diaphragm



## Technical characteristics

### Standard:

- Flow rate up to: 15.1 l/h
- Pressure up to: 17.2 kg/cm<sup>2</sup>g
- Increased stroking speed range (1 to 240 spm), combined with standard stroke length range (30 to 100%) allows for more precise chemical dosing.
- Single-ball or double-ball check valve options enable improved pumping efficiency.
- New Industrial water tight IP-68 electrical connectors for external equipment interface.
- External mode option has pulse input control capability through external control connector (5-Pin)
- External mode option has 4-20 mA input control capability through external control connector (5-Pin)
- Adjustment of flow rate while running or stopped: from 20 to 100%
- New remote on/off option through external control connector (5-Pin)



## Unique features

- Thick wall IXEF reinforced thermoplastic construction plus integrated metal-plastic structural and magnetic components resulting in vibration and shock resistance not ordinarily found in competitive products.
- The new FastPrime™ liquid ends are equipped with a bleed port.
- The P+7 and P+8 series allow an optional low-level float switch which connects to a new low-level connector (3-Pin) and low-level indicator light, warning when chemical is low.
- The external control connections are industrial watertight M12 (IP68).

## Wide Variety of application

- Pump heads in PVC, PVDF, PP or Acrylic and valves (Ceramic or PTFE balls, Aflas® or PTFE seats) assure reliable and leave free operation.
- Composite pump diaphragms are in superior Fluorofilm™

## Accessories

- The ROYTRONIC® are supplied with:
  1. Injection check valve,
  2. Foot valve
  3. Ceramic weight,
  4. 2 m bleed tubing
  5. 1 external control cable (2 m) for P+7 and P+8 only

Model P<sup>+</sup>

7 5 1 8 2 8 S I

Drive

**Control code**

- 0 – Single Manual Control:**  
Speed (Stroking frequency) fixed and stroke length manually adjustable
- 1 – Dual Manual Control:**  
Speed (stroking frequency) and stroke length manually adjustable
- 7 – Pulse Input / Dual Manual Control:**  
External control capability through pulse input and low level float switch plus manual control adjustments of control code 1
- 8 – Analog Input / Dual Manual Control:**  
External control capability through 4-20 mA input and low level float switch plus manual control adjustments of control code 1

**Output code**

- 1 – 0.26 GPH (0.9 l/h), 17.2 Bar (250 PSI), 120 SPM
- 4 – 0.50 GPH (1.9 l/h), 17.2 Bar (250 PSI), 240 SPM
- 5 – 1.0 GPH (3.8 l/h), 7.6 Bar (110 PSI), 250 SPM
- 6 – 2.0 GPH (7.6 l/h), 3.4 Bar (50 PSI), 240 SPM
- 8 – 3.2 GPH (12.1 l/h), 1.5 Bar (22 PSI), 240 SPM
- 9 – 4.0 GPH (15.1 l/h), 1.0 Bar (15 PSI), 240 SPM

**Voltage code**

- 1 – 110-120V US Plug
- 2 – 220-240V US Plug
- 3 – 220-240V DIN Plug
- 4 – 220-240V Israel Plug
- 5 – 220-240V UK Plug
- 6 – 220-240V Aust/NZ Plug
- 7 – 220-240V Swigg Plug
- 8 – 110-120V No plug
- 9 – 220-240V Indian Plug

Liquid End

**Liquid End code**

- 7 – Molded Head, Single Ball Check Valves
- 8 – Molded Head, Double Ball Check Valves
- 9 – Machined Head, Double Ball Check valves

**Liquifram™ Size code**

- 1 – 0.2 in<sup>2</sup>
- 2 – 0.4 in<sup>2</sup>
- 3 – 0.8 in<sup>2</sup>
- 4 – 1.6 in<sup>2</sup>

**Material Code**

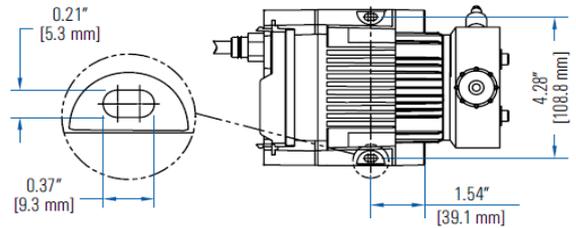
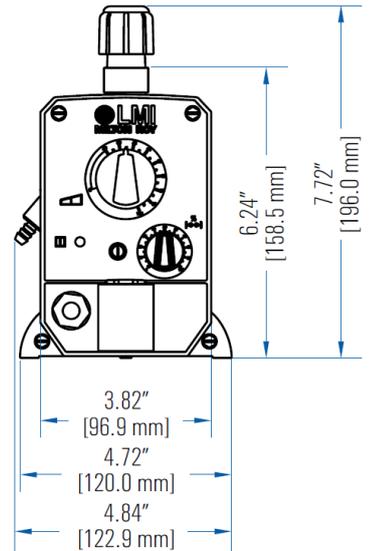
See Next Page for Material Options

**Head/Valve code**

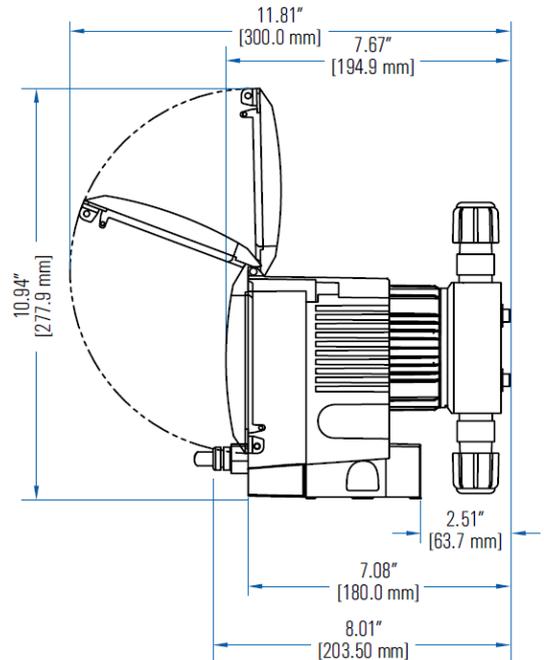
- S – FastPrime™ Head + 4FV
- N – FastPrime™ Head
- H – AutoPrime™ Head + 4FV
- A – AutoPrime™ Head

**Connection code**

- I – Inch Tubing
- M – Metric Tubing
- P – ½" NPT – ½" BSP Pipe
- U – Black, UV Resistant Tubing



The general dimensions are given as an indication only.  
The dimensions given correspond to the maximum dimensions.



Drive Assembly	Liquid End	Material of Construction						Tubing & Connections
		Head/Fittings	Balls	Liquifram™	Seat	O-ring	Acc. Valve	
P+X1	FastPrime 0.003 to 0.26 GPH	(0.01 to 0.9 l/h)	Liquifram	Size Code 1	250 psi (17.2 Bar)			
	AutoPrime 0.001 to 0.13 GPH	(0.005 to 0.5 l/h)	Liquifram	Size Code 1	110 psi (7.6 Bar)			
P+X4	FastPrime 0.005 to 0.5 GPH	(0.02 to 1.9 l/h)	Liquifram	Size Code 1	250 psi (17.2 Bar)			
	AutoPrime 0.003 to 0.25 GPH	(0.01 to 0.9 l/h)	Liquifram	Size Code 1	110 psi (7.6 Bar)			
P+81_	<b>AutotPrime™ Liquid Ends</b>							
	910HI	Acrylic / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	APH + 4FV	PE 1/4" O.D.
P+71_	918HI	PVC / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	APH + 4FV	PE 1/4" O.D.
P+11_	<b>Machined FastPrime™ Liquid Ends (Double Ball Check Valves)</b>							
	910SI	Acrylic / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 1/4" O.D.
P+01_	915SI	PP / PP	Ceramic	Fluorofilm™	PTFE	PTFE	FPH + 4FV	PE 1/4" O.D.
P+84_	919SI	Acrylic / PVDF	PTFE	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 1/4" O.D.
P+74_	<b>Molded FastPrime™ Liquid Ends (Double Ball Check Valves)</b>							
	812SI	PVDF / PVDF	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 1/4" O.D.
P+34_	813SI	PVDF / PVDF	Ceramic	Fluorofilm™	PTFE	PTFE	FPH + 4FV	PE 1/4" O.D.
P+14_	818SI	PVC / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 1/4" O.D.
P+04_	<b>Molded FastPrime™ Liquid Ends (Single Ball Check Valves)</b>							
	718SI	PVC / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 1/4" O.D.

Drive Assembly	Liquid End	Material of Construction						Tubing & Connections
		Head/Fittings	Balls	Liquifram™	Seat	O-ring	Acc. Valve	
P+X5	FastPrime 0.04 to 3.8 LPH	(0.04 to 3.8 l/h)	Liquifram	Size Code 2	110 psi (7.6 Bar)			
	AutoPrime 0.005 to 0.75 GPH	(0.02 to 2.8 l/h)	Liquifram	Size Code 2	110 psi (7.6 Bar)			
P+85_	<b>AuottPrime™ Liquid Ends</b>							
	920HI	Acrylic / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	APH + 4FV	PE 3/8" O.D.
P+75_	928HI	PVC / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	APH + 4FV	PE 3/8" O.D.
P+15_	<b>Machined FastPrime™ Liquid Ends (Double Ball Check Valves)</b>							
	920SI	Acrylic / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+05_	925SI	PP / PP	Ceramic	Fluorofilm™	PTFE	PTFE	FPH + 4FV	PE 3/8" O.D.
P+05_	<b>Molded FastPrime™ Liquid Ends (Double Ball Check Valves)</b>							
	929SI	Acrylic / PVDF	PTFE	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+05_	<b>Molded FastPrime™ Liquid Ends (Single Ball Check Valves)</b>							
	822SI	PVDF / PVDF	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+05_	823SI	PVDF / PVDF	Ceramic	Fluorofilm™	PTFE	PTFE	FPH + 4FV	PE 3/8" O.D.
	828SI	PVC / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+05_	<b>Molded FastPrime™ Liquid Ends (Single Ball Check Valves)</b>							
	728SI	PVC / PVC	Ceramic	Fluorofilm™	PTFE	Polyprel®	FPH + 4FV	PE 3/8" O.D.

Drive Assembly	Liquid End	Material of Construction						Tubing & Connections
		Head/Fittings	Balls	Liquifram™	Seat	O-ring	Acc. Valve	
P+X6	FastPrime 0.02 to 2.0 GPH	(0.08 to 7.6 l/h)	Liquifram	Size Code 3	50 psi (3.4 Bar)			
	AutoPrime 0.017 to 1.7 GPH	(0.06 to 6.4 l/h)	Liquifram	Size Code 3	50 psi (3.4 Bar)			
P+X8	FastPrime 0.03 to 3.2 GPH	(0.12 to 12.1 l/h)	Liquifram	Size Code 3	22 psi (1.5 Bar)			
	AutoPrime 0.03 to 3.2 GPH	(0.12 to 12.1 l/h)	Liquifram	Size Code 3	22 psi (1.5 Bar)			
P+86_	<b>AuottPrime™ Liquid Ends</b>							
	930HI	Acrylic / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	APH + 4FV	PE 3/8" O.D.
P+76_	938HI	PVC / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	APH + 4FV	PE 3/8" O.D.
P+16_	<b>Machined FastPrime™ Liquid Ends (Double Ball Check Valves)</b>							
	930SI	Acrylic / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+06_	935SI	PP / PP	Ceramic	Fluorofilm™	PTFE		FPH + 4FV	PE 3/8" O.D.
P+88_	939SI	Acrylic / PVDF	PTFE	Fluorofilm™	Polyprel®	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+78_	<b>Molded FastPrime™ Liquid Ends (Double Ball Check Valves)</b>							
	832SI	PVDF / PVDF	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+18_	833SI	PVDF / PVDF	Ceramic	Fluorofilm™	PTFE	PTFE	FPH + 4FV	PE 3/8" O.D.
P+08_	836SI	PVC / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH + 4FV	PE 3/8" O.D.
P+08_	<b>Molded FastPrime™ Liquid Ends (Single Ball Check Valves)</b>							
	738SI	PVC / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH + 4FV	PE 3/8" O.D.

		P+X9		Fast Prime 0.04 to 4.0 GPH (0.15 to 15.1 l/h)		Liquifram	Size Code 4	15 psi (1.0 Bar)	
Drive Assembly	Liquid End	Material of Construction							Tubing & Connections
		Head/Fittings	Balls	Liquifram™	Seat	O-ring	Acc. Valve		
P+89_ P+79_ P+19_ P+09_	<b>Machined FastPrime™ Liquid Ends (Double Ball Check Valves)</b>								
	940NI	Acrylic / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH	PE 3/8" O.D.	
	945NI	PP / PP	Ceramic	Fluorofilm™	PTFE	PTFE	FPH	PE 3/8" O.D.	
	949NI	Acrylic / PVDF	PTFE	Fluorofilm™	Polyprel®	Polyprel®	FPH	PE 3/8" O.D.	
	<b>Molded FastPrime™ Liquid Ends (Double Ball Check Valves)</b>								
	842NI	PVDF / PVDF	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH	PE 3/8" O.D.	
	843NI	PVDF / PVDF	Ceramic	Fluorofilm™	PTFE	PTFE	FPH	PE 3/8" O.D.	
	848NI	PVC / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH	PE 3/8" O.D.	
	<b>Molded FastPrime™ Liquid Ends (Single Ball Check Valves)</b>								
	748NI	PVC / PVC	Ceramic	Fluorofilm™	Polyprel®	Polyprel®	FPH	PE 3/8" O.D.	

- To specify changes in head, accessory valve and/or connections, please refer to the model code configuration chart.
- APH indicates that the pump is equipped with an LMI AutoPrime™ Head. This head allows for the constant removal of vapors and gases present in application like sodium hypochlorite and hydrogen peroxide.
- FPH indicates that the pump is equipped with an LMI FastPrime™ Head. This head has an integral manual priming valve to facilitate quick pump start-up
- 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.
- Fluorofilm™ is a copolymer of PTFE and PFA. Polyprel® is an elastomeric PTFE copolymer.
- Polyprel® is a registered trademark of Liquid Metronics Incorporated. Fluorofilm®, Liquifram™, and FastPrime™ are trademarks of Liquid Metronics incorporated.

\*Any changes in this catalogue applicable without prior Information

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