

PULSAtron®

Series E PLUS

Electronic Metering Pumps



Key Features

- **Automatic Control**, available with 4-20 mADC direct or external pacing, with stop function.
- **Manual Control** by on-line adjustable stroke rate and stroke length.
- **Auto-Off-Manual** switch.
- **Highly Reliable** timing circuit.
- **Circuit Protection** against voltage and current upsets.
- **Panel Mounted Fuse**.
- **Solenoid Protection** by thermal overload with auto-reset.
- **Water Resistant**, for outdoor and indoor applications.
- **Indicator Lights**, panel mounted.
- **Guided Ball Check Valve Systems**, to reduce back flow and enhance outstanding priming characteristics.
- **Safe & Easy Priming** with durable leak-free **bleed valve assembly** (standard).

Complete Economical Selection

Nineteen distinct models are available, having pressure capabilities to 300 PSIG @ 3 GPD, and flow capacities to 504 GPD @ 20PSIG, with a turndown ratio of 100:1. Metering performance is reproducible to within $\pm 2\%$ of maximum capacity.

Please refer to the reverse side for Series E PLUS specifications.

Operating Benefits

Reliable metering performance. Our guided check valves, with their state-of-the-art seat and ball designs, provide precise seating, and excellent priming and suction lift characteristics. Our timing circuit is highly reliable and, by design, virtually unaffected by temperature, EMI and other electrical disturbances.

Rated "hot" for continuous duty. Series E PLUS pumps continue to meet their specifications for pressure and capacity even during extended use. That's because of our high quality solenoid and special enclosure that effectively dissipates heat.

High viscosity capability. A straight flow path and ample clearance between the diaphragm and head enable standard PULSAtron pumps to handle viscous chemicals up to a viscosity of 3000 CPS. For higher viscosity applications, larger, spring-loaded connections are available.

System Compatibility

A wide variety of chemicals can be pumped.

Liquid end materials include glass-filled polypropylene (GFPP), PVC, styrene-acrylonitrile (SAN), Polyvinylidene Fluoride (PVDF), PTFE, Hypalon, Viton, ceramic, alloys and 316SS.

Immediate installation and start-up.

Included as standard accessories with all models are an injection/back pressure valve assembly and a foot valve/strainer assembly*, including discharge and suction tubing (*not avail. with high viscosity connections for >3000 CPS).

Safe and easy priming and valve maintenance.

Included as a standard accessory is a bleed valve assembly, including return tubing (available only on those models with tubing connections and ≤ 240 GPD).

Quick and economical liquid end maintenance.

Available for every model is a unique KOPkit®, a convenient, economically priced, package containing new cartridge check valves and other important spare parts.



Agency approved for demanding **OUTDOOR** and indoor applications.

For additional information about PULSAtron's full-featured Series MP refer to Technical Sheet No. EMP-027, about the mid-range Series E, Series D & Series A PLUS refer to Technical Sheet No. EMP-022, EMP-023 & EMP-025. For information about the economical Series C PLUS & Series C, refer to Technical Sheet No. EMP-026 & EMP-024.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



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PULSAtron Series E PLUS Specifications

Pressure and Flow Rate Capacity

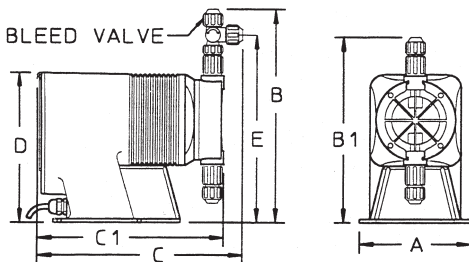
MODEL		LPK2	LPB2	LPA2	LPD3	LPB3	LPA3	LPK3	LPF4	LPD4	LPB4	LPH4	LPG4	LPE4	LPK5	LPH5	LPH6	LPK7	LPH7	LPJ7	LPH8
Capacity nominal (max.)	GPH	0.13	0.21	0.25	0.5	0.50	0.50	0.60	0.85	0.90	1.00	1.70	1.75	1.85	2.50	3.15	5.00	8.00	10.00	10.00	25.00
	GPD	3	5	6	12	12	12	14	20	22	24	41	42	44	60	76	120	192	240	240	600
	LPH	0.5	0.8	0.9	1.9	1.9	1.9	2.3	3.2	3.4	3.8	6.4	6.6	7	9.5	11.9	18.9	30.3	37.9	37.9	94.6
Pressure (max.)	PSIG	300	250	150	250	150	100	100	250	150	100	250	150	100	150	150	100	50	35	80	30
	BAR	21	17	10	17	10	7	7	17	10	7	17	10	7	10	10	7	3.3	2.4	5.5	2
Connections	Tubing	1/4" ID X 3/8" OD 3/8" ID X 1/2" OD 3/16" ID X 5/16" OD												3/8" ID X 1/2" OD 1/2" ID X 3/4" OD (LPH8 ONLY)							
	Piping	1/4" FNPT												1/4" FNPT 1/2" FNPT							
Reproducibility	+/- 2% at maximum capacity																				
Viscosity Max CPS	For viscosity up to 3000 CPS, select connection size 3, 4, B or C with 316SS ball material. Flow rate will determine connection/ball size. Greater than 3000 CPS require spring loaded ball checks. See Selection Guide for proper connection.																				
Stroke Frequency	125 Strokes Per Minute (SPM) maximum																				
Stroke Frequency Turn-Down Ratio	10:1																				
Stroke Length Turn-Down Ratio	10:1																				
Power Input	115 VAC/50-60 HZ/1 ph 230 VAC/50-60 HZ/1 ph																				
Average Current Draw	1.0 Amps @ 115 VAC, 0.5 Amps @ 230 VAC																				
Peak Input Power	300 Watts																				
Average Input Power @ max SPM	130 Watts																				

Liquid End Materials

Series	Pump Head	Diaphragm	Check Valves		Fittings	Bleed Valve	Injection Valve Assembly Foot Valve Assembly	Tubing
			Seats/O-Rings	Balls				
E PLUS	GFPPL PVC SAN PVDF 316 SS	PTFE-faced Hypalon-backed	PTFE, Hypalon, Viton	Ceramic, PTFE, 316SS, Alloy C	GFPPL PVC PVDF	Same as fitting and check valve selected, except 316SS	Same as fitting and check valve selected	Clear PVC White PE

Important: Material Code— GFPPL = Glass-filled Polypropylene, PVC = Polyvinyl Chloride, SAN = Styrene-Acrylonitrile, PE = Polyethylene, PVDF = Polyvinylidene Fluoride. Hypalon and Viton are registered trademarks of E.I. DuPont Company. PVC wetted end recommended for sodium hypochlorite.

Dimensions



Series E Plus Dimensions (inches)																	
Model No.	A	B	B1	C	C1	D	E	Shpg Wt	Model No.	A	B	B1	C	C1	D	E	Shpg Wt
LPA2	5.4	10.3	-	10.8	-	7.5	8.9	13	LPH4	6.2	10.9	-	11.2	-	8.2	9.5	21
LPA3	5.4	10.6	-	10.7	-	7.5	9.2	13	LPH5	6.2	11.3	-	11.2	-	8.2	9.9	21
LPB2	5.4	10.3	-	10.8	-	7.5	8.9	13	LPH6	6.2	11.3	-	11.9	-	8.2	9.9	21
LPB3	5.4	10.6	-	10.7	-	7.5	9.2	13	LPH7	6.1	11.7	-	11.9	-	8.2	10.3	21
LPB4	5.4	10.6	-	10.7	-	7.5	9.2	13	LPH8*	6.1	-	10.9	-	11.3	8.2	-	26
LPD3	5.4	10.6	-	11.2	-	7.5	9.2	15	LPK2	5.4	10.3	-	10.8	-	7.5	8.9	13
LPD4	5.4	10.6	-	11.2	-	7.5	9.2	15	LPK3	5.4	10.6	-	10.7	-	7.5	9.2	13
LPE4	5.4	10.6	-	11.2	-	7.5	9.2	15	LPK5	5.4	10.9	-	11.7	-	7.5	9.5	18
LPF4	5.4	10.6	-	11.7	-	7.5	9.2	18	LPK7	6.1	11.7	-	11.2	-	8.2	10.3	21
LPG4	5.4	10.6	-	11.7	-	7.5	9.2	18	LPJ7	6.1	10	-	10.7	-	-	-	21

NOTE: Inches X 2.54 = cm /* the LPH8 is designed without a bleed valve available

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壹、主要特點：

- 一、型式：電磁驅動膜片式，屋外或屋內型
- 二、最大加藥量可達 **600 GPD**，吐出壓力最大可達 **300 PSIG**，有十九種型號可供選擇。
- 三、構造：加藥機外殼為強韌耐酸鹼材質。膜片表面為鐵弗龍(Teflon)，背面為人造橡膠壓製而成。藥液吸入及吐出端各設有雙球型逆止閥，逆止閥結構易於拆卸便於清除。加藥機之操作由電磁線圈驅動膜片而成，加藥量可經由手動調整其頻率及膜片衝程長度來控制，衝程數(SPM)每分鐘最大 125 次，精確度+/- 2%，特殊外部鰭型散熱設計，有效地發揮散熱功能，增加使用壽命。
- 四、電源：**單相 AC 115V/60 或 50Hz 或 230V/60 或 50Hz**。
- 五、附手動排氣裝置(逸氣閥)，另可選配五項功能閥或自動排氣閥。
- 六、接液部份材質：**GFPP, PVC, PVDF, SAN 及 SS316** 等多種材質可供選擇。

標準配備：吸入及吐出逆止閥皆採雙球設計 (*Double ball check*) 閥座(Seat) *Teflon*，逆止球(Ball)陶瓷 *Ceramic*，注入閥(Injection back pressure valve)需能插入管內至少 50mm，並有彈簧及陶瓷逆止球可防止藥液回流及虹吸作用。膜片(Diaphragm)表面為鐵弗龍 *Teflon*，背面為人造橡膠壓製而成。

- 七、控制功能：**標準功能 雙調鈕式**(衝程長度及衝程頻率)，及一個 ON/OFF 開關。
選配功能：三段式開關(自動-停止-手動)，可經由開關轉到自動狀態下接受 *PULSE*(脈衝式)訊號輸入或 **4-20mA** 訊號作比例式加藥。
LED 指示燈(綠燈動作 *ON*，紅燈停 *OFF*)

- 八、產品合格認證：**ISO 9002/14001** 合格品質認證及電氣安全認證“**CE**”等。
- 貳、 每台附件：底閥 1 只，注入閥 1 只，逸氣閥 1 只，原廠英文手冊。
 透明 PVC 吸入端加藥管，白色 PE 吐出端加藥管

【Specification】 規格說明

Connections: Tubing	1/4"IDx3/8"OD
	3/8"IDx1/2"OD
Piping	1/4"FNPT
Reproducibility at max.capacity	+/- 2%
Viscosity Max CPS	3000 Max.
Stroke Frequency Max SPM	125
Turn-Down Ratio	10:1
Power Input	115V 或 230V 50/60hz/1 ph
Average Current Draw	115VAC : 1.0 Amps 230VAC: 0.5 Amps
Peak Input Power Watts	300
Average Input Power @Max SPM: Watts	130



Pressure and Flow Rate Capacity 【型號及規格說明】

MODEL	LPK2	LPB2	LPA2	LPD3	LPB3	LPA3	LPK3	LPF4	LPD4	LPB4	LPH4	LPG4	LPE4	LPK5	LPH5	LPH6	LPK7	LPH7	LPH8	
Capacity	GPH	0.13	0.21	0.25	0.50	0.50	0.50	0.60	0.85	0.90	1.00	1.70	1.75	1.85	2.50	3.15	5.00	8.00	10.00	25.00
nominal	GPD	3	5	6	12	12	12	14	20	22	24	41	42	44	60	76	120	192	240	600
(max)	LPH	0.5	0.8	0.9	1.9	1.9	1.9	2.3	3.2	3.4	3.8	6.4	6.6	7.0	9.5	11.90	18.9	30.3	37.9	94.6
Pressure	PSIG	300	250	150	250	150	100	100	250	150	100	250	150	100	150	150	100	50	35	30
(max)	BAR	21	17	10	17	10	7	7	17	10	7	17	10	7	10	10	7	3.3	2.4	2
Connections:	Tubing	1/4" ID X 3/8" OD												3/8" ID X 1/2" OD						
	Piping	3/8" ID X 1/2" OD												1/2" ID X 3/4" OD (LPH8 ONLY)						
		3/16" ID X 5/16" OD												1/4" FNPT						
		1/4" FNPT												1/2" FNPT						
Reproducibility	At max. capacity	+/-2%																		
Viscosity Max CPS	For viscosity up to 3000 CPS, select connection size 3,4,B or C with 316SS ball material. Flow rate will determine connection/ball size. 3000-10,000 CPS require spring loaded ball checks. See Selection Guide for proper connection																			
Stroke Frequency	Max SPM	125																		
Stroke Frequency Turn-Down Ratio		100:1																		
Stroke Length Turn-Down Ratio		10:1																		
Power Input		115 VAC/50-60 Hz/1 PH 230 VAC/50-60 Hz/1 PH																		
Average Current Draw	@ 115 VAC: Amps	1.0																		
	@ 230 VAC: Amps	0.5																		
Peak Input Power	Watts	300																		
Average Input Power	@ max SPM: Watts	130																		

Liquid End Materials 【接液部材質】

Series	Pump Head	Diaphragm	Check Valves		Fittings	Bleed Valve	Injection Valve Assembly Foot Valve Assembly	Tubing
			Seats/O-Rings	Balls				
E PLUS	GFPPPL PVC SAN PVDF 316 SS	Teflon-faced Hypalon-backed	Teflon, Hypalon, Viton	Ceramic, Teflon, 316SS Alloy C	GFPPPL PVC PVDF	Same as fitting and check valve selected, except 316SS	Same as fitting and Check valve selected	Clear PVC White PE