

PSNE1000D Dual syringe pump Continuous infusion

Description:

- Two PSNE1000 Family of Pumps Syringe Pumps connected together
- The pumps are often used in dual-pump setups, possibly with check valves for continuous pumping or mixing so that one syringe dispenses while the other reloads.
- Flexibility to separate pumps for individual use.
- Additional models include: PSNE1010D, PSNE4000D, PSNE1600D/1800D and PSNE1002XD



The PSNE1000 family of syringe pumps features:

- Built for automation
- Operates stand-alone or from a computer
- Infuses and withdraws
- Applications range from simple infusions to complex pumping programs
- Programmable preset protocols
- Program up to 41 pumping phases: change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer.
- RS-232 and TTL logic control interfaces

Network, control, and monitor up to 100 pumps with one computer. Worldwide power supplies available. Motor stall detection. Non-volatile memory of all parameters and programming. Upgradeable to the X and X2 advanced firmware versions for gradient pumping and increased program memory. Dispensing accuracy of +/-1%. Unlimited lifetime technical support. Two year warranty. Plus many, many more features!



Dual pump plumbing kit:

- For use with our continuous infusion system or dual infusion system
- Provides a dual check valve for two syringes, withdraw will pull fluid from a reservoir and infusion will output into a separate line
- The kit is pre-assembled, all you need to do is plug in the syringes
- Each dual check valve uses 6" of 1/8" tubing to connect to a Y connector, one for reservoir and one for output; each Y-connector has 5' of tubing

to make connections to your application. Two 60cc Terumo syringes are included.

Custom Applications

For specialized and OEM applications, contact us!

Custom modifications can be made to the mechanics and/or the firmware.

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Specifications

Mechanical & electrical

Syringe sizes:	Up to 60 mL (140 mL partially filled)
Number of syringes:	1
Motor type:	Step motor
Motor steps per revolution:	400
Micro-stepping:	1/8 to 1/2 depending on motor speed
Advance per step:	0.2126 μ m to 0.8504 μ m depending on motor speed
Motor to drive screw ratio:	15/28
Drive screw pitch:	20 revolutions/inch
DC connector:	2.1 mm, center positive
Voltage at DC connector:	12V DC at full load
Amperage:	750 mA at full load
Power supply type:	Unregulated linear external wall adapter, country and power source specific
Power supply output rating:	12V DC @ 800 mA
Dimensions:	22.86 cm x 14.605 cm x 11.43 cm
Weight:	1.63 kg
Allen wrench	3/32 hex

Operational

Maximum speed	5.1005 cm/min
Minimum speed	0.004205 cm/hr
Maximum pumping rate	1699 mL/hr with a B-D 60 mL syringe
Minimum pumping rate	0.73 μ L/hr with a B-D 1 mL syringe
Maximum force	35 lbs. at minimum speed, 18 lbs. at maximum speed
Number of program phases	41
RS-232 pump network	100 pumps maximum
PS-232 selectable baud rates	300, 1200, 2400, 9600, 19200
Syringe inside diameter range:	0.100 to 50.00 mm

Syringe manufacturer	Syringe (μ L)	Inside diameter (mm)	Maximum rate (μ L/hr)	Minimum rate (μ L/hr)
SGE (Gas tight)	5	0.343	209.2	0.004
	10	0.485	418.3	0.008
	25	0.728	942.5	0.018
	50	1.03	1886	0.036
	100	1.457	3775	0.071
Hamilton	0.5	0.103	18.86	0.001
	1	0.146	37.91	0.001
	2	0.206	75.47	0.002
	5	0.326	189	0.004

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Syringe manufacturer	Syringe (mL)	Inside diameter (mm)	Maximum rate (mL/hr)	Minimum rate (µL/hr)	Maximum rate (mL/min)
B-D	1	4.699	53.07	0.73	0.884
	3	8.585	177.1	2.434	2.952
	5	11.99	345.5	4.748	5.758
	10	14.43	500.4	6.876	8.341
	20	19.05	872.2	11.99	14.53
	30	21.59	1120	15.4	18.67
	60	26.59	1699	23.35	28.32
HSW Norm-Ject	1	4.69	52.86	0.727	0.881
	3	9.65	223.8	3.076	3.73
	5	12.45	372.5	5.116	6.209
	10	15.9	607.6	8.349	10.12
	20	20.05	966.2	13.28	16.1
	30	22.9	1260	17.32	21
	50	29.2	2049	28.16	34.15
Monoject	1	5.74	79.18	1.088	1.319
	3	8.941	192.1	2.64	3.202
	6	12.7	387.6	5.326	6.46
	12	15.72	593.9	8.161	9.899
	20	20.12	972.9	13.37	16.21
	35	23.52	1329	18.27	22.15
	60	26.64	1705	23.44	28.42
	140	38	3470	47.69	57.84
Terumo	1	4.7	53.09	0.73	0.884
	3	8.95	192.5	2.646	3.208
	5	13	406.1	5.581	6.769
	10	15.8	600	8.244	10
	20	20.15	975.8	13.41	16.26
	30	23.1	1282	17.63	21.37
	60	29.7	2120	29.13	35.33
Poulten & Graf (Glass)	1	6.7	107.8	1.483	1.798
	2	8.91	190.8	2.622	3.18
	3	9.06	197.2	2.711	3.288
	5	11.75	331.8	4.559	5.53
	10	14.67	517.2	7.107	8.62
	20	19.62	925.2	12.72	15.42
	30	22.69	1237	17.01	20.62
	50	26.96	1746	24.01	29.11
Steel Syringes	1	9.538	218.6	3.005	3.644
	3	9.538	218.6	3.005	3.644
	5	12.7	387.6	5.326	6.46
	8	9.538	218.7	3.005	3.644
	20	19.13	879.5	12.09	14.65
	50	28.6	1965	27.01	32.76
SGE (Gas tight)	0.25	2.303	9.432	0.176	0.157
	0.5	3.257	18.86	0.351	0.314
	1	4.606	37.73	0.701	0.629
	2.5	7.284	94.36	1.752	1.573
	5	10.3	188.6	3.504	3.143
	10	14.57	377.5	7.01	6.292
	25	23.03	943.2	17.52	15.72
	50	27.5	1344	24.98	22.4
	100	34.99	2177	40.43	36.28

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