

AL-1000

Aladdin SyringeONE Programmable Syringe Pump

Overview



- Automatic dispensing of small volumes
- Very precise, reproducible flow rate control
- Displays total volume dispensed in mL or μL units
- Selectable infusion/withdrawal rate units (mL/hr, $\mu\text{L/hr}$, mL/min, $\mu\text{L/min}$)
- Infusion rate can be changed while pumping
- Program pump via keypad or from a computer
- Highly controllable – program sequences without a computer (holds up to 41 programming phases)
- Network, control, and monitor up to 100 pumps with one computer
- Hands-free operation with optional foot switch ADPT2
- Motor stall detection

Channels	1
Type	Infusion / Withdrawal
Flow Range	0.001 $\mu\text{L/hr}$ (0.5 mL syringe) to 3470 mL/hr (140 mL syringe)
Dispensing Accuracy	$\pm 1\%$
Syringe Sizes Accepted	0.5 μL to 60 mL or 140 mL partially filled
Linear Force	35 lb at low speed; 18 lb at maximum speed

To meet the demands of a busy lab Aladdin Pumps offer exceptional value providing versatility and reliability for accurately dispensing media down into the nanoliter range.

The Aladdin AL-1000 is a programmable single channel infusion / withdrawal syringe pump. It has a metal casing to provide stability, ensuring less vibration is transferred to the syringes. Setup is easy using the pumps keypad or via a computer with optional PC to pump cable (GN-PC7 or GN-PC25).

The Aladdin AL-1000 can run complex programs with up to 41 pumping phases can be set to change pumping rates; set dispensing volumes; insert pauses; control and respond to external signals; sound the buzzer. (For Linear/Gradient programs use AL-1000X)

Example flow rates

Syringe Size	Maximum Rate	Minimum Rate
0.5 µL	25.49 µL/hr	0.001 µL/hr
1 mL	52.86 mL/hr	0.727 µL/hr
3 mL	223.8 mL/hr	3.076 µL/hr
5 mL	372.5 mL/hr	5.119 µL/hr
10 mL	607.6 mL/hr	8.349 µL/hr
20 mL	966.2 mL/hr	13.28 µL/hr
30 mL	1260 mL/hr	17.32 µL/hr
60 mL	2120 mL/hr	29.1 µL/hr
140 mL	3470 mL/hr	47.7 µL/hr

Dual pumping action

Need a pump for two syringes? Two Aladdin pumps when daisy-chained are more efficient and affordable than any competitor's dual syringe models. Two Aladdins (AL-2000) will perform as a dual infusion/withdrawal pump, a double pump for infusing at different rates, a push/pull pump with one infusing and one withdrawing at the same or different rates, two independent pumps, or a master/slave pump. One Aladdin can even control the second for continuous pumping with optional check valve set. The Aladdin pump series will accept syringes from Becton Dickinson, Monoject, Terumo, and Air-Tite.

Specifications

SYRINGE SIZES	up to 60 mL (140 mL partially filled)
NUMBER OF SYRINGES	1
MOTOR TYPE	Step Motor, 1/8 to 1/2 step modes
STEPS PER REVOLUTIONS	400
STEPPING (max. min.)	0.21µm to 0.850µm
MOTOR TO DRIVE SCREW RATIO	15/28
SPEED(max./min.)	5.1005 cm/min / 0.004205 cm/hr
PUMPING RATES	1699 mL/hr with 60mL syringe, to 0.73µL/hr with 1mL syringe
MAXIMUM FORCE	35 lb at min. speed, 18 lb at max. speed
NUMBER OF PROGRAM PHASES	41
RS-232 PUMP NETWORK	100 pumps maximum
POWER SUPPLY	Wall adapter 12V DC @ 1000mA
DIMENSIONS	22.9 x 14.6 x 11.4 cm (8.75 x 5.75 x 4.5 in.)
WEIGHT	1.6 kg (3.6 lb)



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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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