World Precision Instruments Syringe Pumps

ALADDIN-220

- Accepts plastic syringes up to 60mL and selected glass micro syringes from 0.5-500 uL
- Programmable, economical, verstaile
- Up to 100 pumps can be daisy-chained together via RS232 network
- Single pump

Specifications

Syringe sizes	Plastic syringes up to 60mL;selected glass micro syringes from 0.5-500 uL
Number of syringes	1
Motor type	Step Motor, 1/8 to 1/2 step modes
Steps per revolution	200
Stepping (max. min.)	0.425µm (1/8 stepping) to 1.701µm (1/2 stepping)
Motor to drive screw ratio	15/28
Speed (max./min.)	18.4cm/min / 0.0084 cm/hr
Pumping rates	6120mL/hr with 60 mL syringe, to 1.459µL/hr with 1 mL syringe
Maximum force	100 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 @ 850 mA
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)

ALADDIN2-220

- Accepts two different syringes from the smallest size available up to 60mL
- Infuses and withdraws
- Pumping rates: 1.459mL/hr.. 127.2mL/min.
- Operates stand-alone or from a computer
- Programmable preset protocols
- RS-232 and TTL logic control interfaces
- Motor stall detection
- Non-volatile memory of all parameters and programming
- Upgradeable memory
- Dispensing accuracy of ±1%

The ALADDIN2-220 Programmable Syringe Pump is perfect for situations requiring flexibility or automation. With dual syringes, you can use two syringes of different size for proportional infusion. The pump accepts syringes that range from the smallest available to 60mL.

With a variety of pumping rates (1.459mL/hr. . 127.2mL/min.), infusion and withdraw capability, and pumping phases that can be programmed, the AL-4000 was designed for automation. This pump can handle applications like simple infusions, as well as complex pumping programs.

You can program up to 41 pumping phases that change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, or sound an alarm. Connect two pumps with a dual cable to create a dual pump system that allows for continuous infusion or emulsification. If required, you can network, control and monitor up to 100 pumps with a single computer.

NOTE: This product is not approved for clinical use on humans.

Specifications

Syringe sizes	Up to 60mL(140mL partially filled)
Number of syringes	2
Motor type	Step Motor, 1/8 to 1/2 step modes
Steps per revolution	200
Advance per step	0.42522321µM to 1.7009µM depending on motor speed
Motor to drive screw ratio	15/28
Drive screw pitch	20 revolutions/inch
Power supply	Wall adapter 12V DC @ 1000 mA
DC connector	2.5mm, center positive
Power supply type	Unregulated linear external wall adapter, country and power source specific
Dimensions	22.9 x 14.6 x 11.4 cm (8.75 x 5.75 x 4.5 in.)
Weight	1.63 kg (3.6 lb)
Maximum speed	18.36964cm/min
Minimum speed	0.008409cm/hr.
Maximum pumping rate	6120mL/hr. with a B-D 60cc syringe
Minimum pumping rate	1.459 L/hr. with a B-D 1cc syringe
Maximum force	100 lbs. at minimum speed, 18 lbs. at maximum speed

ALADDIN6-220

- Holds 2, 4 or 6 syringes up to 60mL each.
- Infusion rates: 0.452 L/hr (1cc syringe) to 1451mL/hr (60cc syringe)
- Fully programmable, automate with a computer (if desired)
- Up to 41 pumping phases can be programmed to allow:
  - pumping rate change
  - set dispensing volumes
  - pause
  - external signals
  - set alarms
- Accuracy +/- 1%
- 2-year warranty

Specifications

Syringe sizes	1-60 mL, or 0.5-5µL micro syringes
Number of syringes	6
Motor type	Step Motor, 1/8 to 1/2 step modes
Steps per revolution	400
Stepping (max. min.)	0.21µm to 0.850µm
Motor to drive screw ratio	15/28
Speed (max./min.)	5.1 cm/min / 0.0042 cm/hr
Pumping rates	1699 mL/hr with 60 mL syringe, to 0.73µL/hr with 1 mL 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 @ 850 mA
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)

ALADDIN8-220

- Holds 2, 4, 6, or 8 syringes of up to 10cc each (Glass or stainless steel syringes larger than 20mL may require Anti-siphon Modification Kit.)
- Infusion rates from 0.568µL/hr (1cc syringe) to 380ml/hr (10 cc syringe)
- Easy-to-use keypad interface
- Higher flow rate models available
- Includes all the advanced functions and programming features
- Infuse/withdrawal
- Programmable preset protocols
- RS-232 and TTL logic control interfaces
- 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%

The AL-8000 Programmable Syringe Pump is designed for automation. It can be operated in a stand alone fashion or from a computer. Applications range from simple infusion to complex pumping programs. You may program up to 41 pumping phases that include changing pumping rates, setting dispensing volumes, inserting pauses, controlling or responding to external signals, or sounding the buzzer.

Two pumps connected with a dual cable create a Dual Pump System allowing for continuous infusion or emulsification. Network, control and monitor up to 100 pumps with one computer.

Specifications

Syringe sizes	Up to 100mL
Number of syringes	8
Motor type	Step Motor
Steps per revolutions	200
Advance per step	0.132291667µM to 0.26458333µM depending on motor speed
Motor to drive screw ratio	5/1
Drive screw pitch	20 revolutions/inch
Power supply	Wall adapter 12V DC @ 1000 mA
DC connector	2.5mm, center positive
Power supply type	Unregulated linear external wall adapter, country and power source specific
Dimensions	10.25⊬x15⊬x5⊬High (26x38.1x12.7cm)
Weight	10.125 lbs. (4.595kg)
Maximum speed	3.4917cm/min.
Minimum speed	0.0026cm/hr.
Maximum pumping rate	1163mL/hr. with a B-D 60cc syringe
Minimum pumping rate	0.454 L/hr. with a B-D 1cc syringe
Force applied to all syringes	160 lbs at min. speed, 30 lbs at max. speed
Number of program phases	41
RS-232 pump network	100 pumps maximum
RS-232 selectable baud rate	300, 1200, 2400, 9600, 19200
Syringe inside diameter range	0.100. 50.00mm

ALADDIN12-220

- Holds Holds 2, 4, 6, 8, 10 or 12 syringes of up to 3 cc each (Glass or stainless steel syringes larger than 20mL may require Anti-siphon Modification Kit.
- Infusion rates from 0.45µL/hr (1 cc syringe) to 153.2 ml/hr (3 cc syringe)
- Easy-to-use keypad interface
- Higher flow rate models available
- Includes all the advanced functions and programming features Aladdin family

Syringe Size (cc)	Maximum Rate (mL/hr)	Minimum Rate (µL/hr)
0.5 µL	17.45 µL	0.001 µL
2 µL	69.82 µL	0.001 µL
5 µL	174.8 µL	0.003 µL
1	36.19	0.452
3	153.2	1.914

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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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