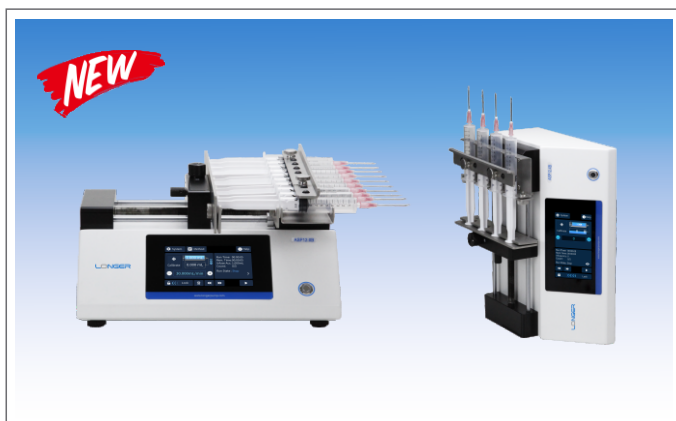


# Laboratorial Syringe Pump

## ASP100 Series Digital Syringe Pump



- Experience unmatched ease of use with a high-resolution color LCD and an intuitive full-touchscreen interface.
- Delivering liquids with exceptional accuracy and a pulseless flow, perfect for handling small volumes.
- Fine-tune the flow rate in real time, optimizing the pump parameters even while in operation.
- Provided with ready-to-use Labview drivers and demos for streamlined automation and effortless integration with other lab equipment.



Product Model	ASP12-XB			
Work mode	Single infuse, multiple infuse, single withdraw, infuse/withdraw(continuous), withdraw/infuse(continuous)			
Number of syringes	4 (with 4-channel Rack)	6 (with 6-channel Rack)	8 (with 8-channel Rack)	10 (with 10-channel Rack)
Syringe options	0.5μL-10mL			
Flow rate for reference	3.3pL/min-39mL/min			
Stroke	140mm			
Pusher advance per microstep	0.0326μm/microstep			
Linear speed	0.416μm/min-180mm/min			
Linear speed resolution	0.416μm/min			
Linear travel accuracy	$\leq \pm 0.35\%$ (when travel $\geq 30\%$ of stroke)			
Linear travel CV	$CV \leq 0.03\%$ (when travel $\geq 30\%$ of stroke)			
Linear force (max.)	320N(can be set 20%-100%)			
Built-in syringe	Common syringe brands and models on the market			
User-defined syringe	Store 20 user-defined syringes: travel $\leq 140\text{mm}$ , $6.2\text{mm} \leq OD \leq 20\text{mm}$			
Calibration	Improve flow rate/ volume precision and accuracy by calibrating the user-defined syringe			
Display	4.3 inch LCD for parameters and pump status, Chinese / English			
Parameter method	20 parameter methods can be stored and easily recalled			
Control mode	Touchscreen control, external control, communication control, footswitch control, Labview control			
External control	Two control inputs: switch signals or level signals for start/stop and emergency stop Two status outputs: can be configured as start/stop, direction or fault alarm			
Communication control	RS485, Modbus RTU or Longer OEM protocol			
Real-time adjustment	The flow rate can be adjusted while the pump is running			
Audible alert	Beep sound can indicate keypad clicks, near end of run, end of run, and fault alarm			
Indicator light	Green-running, Blue-standby, Red-Warning			
Screen lock	The touchscreen can be locked to prevent misoperation			
Vertical display	The display will rotate 90 degrees to support vertical operation.			
Pump status when power up	Stop			
Fast forward/backward	Infuse or withdraw at full speed			
EMC	NB CE/UKCA certified			
Dimensions (LxWxH)	280mm×223mm×160mm	280mm×263mm×160mm	280mm×270mm×160mm	280mm×315mm×160mm
Power supply for adapter	AC 90V-260V			
Power supply for pump	DC24V/15W			
Temperature	0 - 40°C			
Humidity	$\leq 80\%RH$ , No condensation			
Weight	4.65kg	4.85kg	4.95kg	5.15kg

Syringe	Syringe ID (mm)	Flow rate for reference
0.5μL	0.10	0.0033nL/min-0.0014mL/min
5μL	0.35	0.040nL/min-0.0173mL/min
10μL	0.46	0.0691nL/min-0.0353mL/min
25μL	0.80	0.2090nL/min-0.0904mL/min
50μL	1.10	0.3951nL/min-0.1710mL/min
100μL	1.60	0.8360nL/min-0.3617mL/min
250μL	2.30	1.7275nL/min-0.7475mL/min
500μL	3.25	3.4493nL/min-1.4925mL/min
1mL	4.72	7.2752nL/min-3.1479mL/min
5mL	13.10	56.041nL/min-24.248mL/min
10mL	16.60	89.987nL/min-38.937mL/min