

LSP01-1A/2A Syringe Pump



Functions and Features

Syringe Selection: The syringe can be selected in the manufacturer table which includes manufacturer, material and size or input the inner diameter of the syringe barrel directly

Easy to operate: Combining big screen LCD display with rotary coded switch and membrane keypad makes the operation simple and prompt.

Working Mode: Infusion

Memory Function:

1. The parameters are saved in EEPROM. The parameters don't need to be reset when power returns after an interruption
2. In flow rate mode, the pump remains running or stop according to the setting parameters when power returns after an interruption

Protection Function: The pump will stall and give an alarm when the drive structure of the pump is blocked

Communication Function: Realize computer control through RS485 communication interface

External Control Function: Input/output control

Calibration Function: Acquire accurate volume through calibration

Syringe Protection: Adjust syringe rest to prevent syringe from damaging

This pump is a single channel syringe pump which only has infusion mode. The acceptable syringe specification is from 10 μ L to 60 mL. Suitable for high accuracy and small flow rate liquid transferring.

Specifications Comparison Table

Syringe Pump	LSP01-1A	LSP01-2A
Advance per Microstep	1/16step: 0.156 μ m	1/16step: 0.03125 μ m
Infusion Volumn per Microstep (60 mL BD Syringe)	0.0867 μ L	0.01734 μ L
Max. Linear Rate	65 mm/min	13 mm/min
Min. Linear Rate	5 μ m/min	1 μ m/min
Flow Rate	0.831 nL/min - 54.155 ml/min	0.166 nL/min- 10.831 mL/min
Working Mode	Infusion	
Max. No. of Syringes	1	
Syringe Size	10 μ L - 60 mL	
Linear Force	> 9 kg	
Max. Step Rate	6933 (1/16step)/ sec	
Min. Step Rate	16 (1/16 step) /30 sec	
Accuracy	\leq 0.5% error in the condition of > 30% of max. infusion distance	
Setting Mode	Rotary coded switch and membrane keypad	
Display	128 x 64 graphic LCD	
Power	AC 100 - 240 V	
Operating Condition	Temperature 5 $^{\circ}$ C - 40 $^{\circ}$ C Relative humidity < 80 %	
Dimensions	280 x 210 x 140 mm	
Weights	3.6 kg	

Hamilton Syringe (mL)	I. D. (mm)	LSP01 - 1A			LSP01 - 2A		
		Ref. Flow Rate(* / min)	Linear Rate(* / min)	Part Number	Ref. Flow Rate(* / min)	Linear Rate(* / min)	Part Number
50 μ L	1.030	0.004 μ L - 0.054 mL	5 μ m - 65mm	5407001	0.001 μ L - 0.011 mL	1 μ m - 13mm	5407002
1	4.610	0.083 μ L - 1.085 mL			0.017 μ L - 0.217 mL		
2.5	7.280	0.208 μ L - 2.706 mL			0.042 μ L - 0.541 mL		
5	10.300	0.417 μ L - 5.416 mL			0.083 μ L - 1.083 mL		
10	14.570	0.834 μ L - 10.837 mL			0.167 μ L - 2.167 mL		
25	23.030	2.083 μ L - 27.076 mL			0.417 μ L - 5.415 mL		
50	32.570	4.166 μ L - 54.155 mL			0.833 μ L - 10.831 mL		
60	32.570	4.166 μ L - 54.155 mL			0.833 μ L - 10.831 mL		

Note: Flow Rate = Linear Rate \times Section Area of the Barrel