

# Laboratorial Syringe Pump

## LSP Series

- Mainly used in biological laboratories and other places
- It is applicable to various specifications of syringes and can meet the needs of customers



Specifications	LSP01-2A	LSP02-2A	LSP04-1A	LSP10-1B
Work mode	Infusion			Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous
Channel	1	2	4	10
Stroke of pump	140mm			
Pusher advance per microstep	0.03125μm		0.156μm	
Linear speed	1μm/min-13mm/min		5μm/min-130mm/min(Flow rate=Linear speed * Section area of the barrel)	
Linear speed resolution	1μm/min		5μm/min	
Linear travel accuracy	≤±0.5% when travel ≥30% of pump stroke			
Linear force(max.)	>90N	>290N	>180N	
Syringe selection	Built-in syringe branches, sizes and IDs for selection			
Syringe user-defined	Can store four user-defined syringe IDs			
Flow rate calibration	Improve flow rate accuracy			
Running parameters setting	Infusion volume, infusion time, etc			Infusion/Withdrawal volume, infusion time, withdrawal time, pause time, etc
Display setting	Display volume, flow rate or linear speed			
Power-off memory	Storing the running parameters automatically			
Status signal output	2 output signals (OC gate signal) to indicate start/stop and direction			
Control signal input	Falling edge or TTL signal to control Start/stop			
Communication interface	RS485			
Dimensions (L×W×H)	280×210×140(mm)		280×250×140(mm)	280×330×140(mm)
Weight	3.6kg		4.5kg	5.3kg
Power supply	AC 90V-260V/15W		AC 90V-260V/20W	
Operating temperature	0 to 40°C			
Relative humidity	<80%			

Controller Model (Product Code)	LSP01-2A(05.03.41A) LSP02-2A(05.03.47A)	LSP04-1A(05.03.45A)	LSP10-1B(05.03.46A)
Syringe Syringe ID(mm)	Flow Rate(μL/min - mL/min)		
10uL 0.50	0.0002μL/min-0.0026mL/min	0.001μL/min-0.0255mL/min	0.001μL/min-0.0255mL/min
25uL 0.80	0.0005μL/min-0.0065mL/min	0.0025μL/min-0.0653mL/min	0.0025μL/min-0.0653mL/min
50uL 1.10	0.0095μL/min-0.0124mL/min	0.0048μL/min-0.1235mL/min	0.0048μL/min-0.1235mL/min
100uL 1.60	0.002μL/min-0.026mL/min	0.0101μL/min-0.2614mL/min	0.0101μL/min-0.2614mL/min
250uL 2.30	0.0042μL/min-0.054mL/min	0.0208μL/min-0.5401mL/min	0.0208μL/min-0.5401mL/min
500uL 3.25	0.0083μL/min-0.1078mL/min	0.0415μL/min-1.0784mL/min	0.0415μL/min-1.0784mL/min
1mL 4.72	0.0175μL/min-0.2275mL/min	0.0875μL/min-2.2747mL/min	0.0875μL/min-2.2747mL/min
2mL 9.00	0.0636μL/min-0.827mL/min	0.3181μL/min-8.2702mL/min	0.3181μL/min-8.2702mL/min
5mL 13.10	0.1348μL/min-1.7522mL/min	0.6739μL/min-17.522mL/min	0.6739μL/min-17.522mL/min
10mL 16.60	0.2164μL/min-2.8135mL/min	1.0821μL/min-28.135mL/min	1.0821μL/min-28.135mL/min
20mL 19.00	0.2835μL/min-3.6859mL/min	-	-
30mL 23.00	0.4155μL/min-5.4012mL/min	-	-
60mL 29.14	0.6669μL/min-8.6699mL/min	-	-