

Basic syringe pump

SPLab Series



SPLab01



SPLab02



SPLab04

Introduction

The syringe pump with infusion/withdrawal mode. Online flow rate modification function: the pump is running, without stopping, adjust the flow rate at any time to meet complex application. stainless steel body, and large-screen chromatic LCD is easy to operate. It can install and fix different types of injectors or syringes , and it is

Features

- 1.Colorful LCD display: Friendly interface, large-screen LCD display every technical parameter in real time.
- 2.Input injector inner diameter function: Can choose the injector from the list or input the injector inner diameter directly.
- 3.Two measurement mode for selection: Infusion volume --- Infusion rate, Infusion volume --- Infusion time.
- 4.6 different working modes: Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous and additional mode(infusion/ withdrawal, then exclude bubble).The parameters of each working mode saving separately.
- 5.Protection function:The pump will stall and give an alarm when the drive structure of the pump is blocked.
- 6.Online flow rate modification function: the pump is running, without stopping, adjust the flow rate at any time to meet complex application.

Technical Specifications

Plastic Syringe	Inside Diameter(mm)	Flow Rate($\mu\text{L}/\text{min}$ - mL/min)	
		SPLab01/SPLab02	SPLab04-SPLab12
1mL	4.70	0.087~2.290	0.087~2.290
2.0mL	9.12	0.326~8.623	0.326~8.623
5mL	12.48	0.612~16.147	0.612~16.147
10mL	15.89	0.992~26.177	0.992~26.177
20mL	20.00	1.571~41.469	— —
30mL	22.50	1.988~52.484	— —
50mL	28.90	3.280~86.588	— —
100mL	32.00	4.021-106.154	— —
150mL	40.00	6.283-165.871	— —

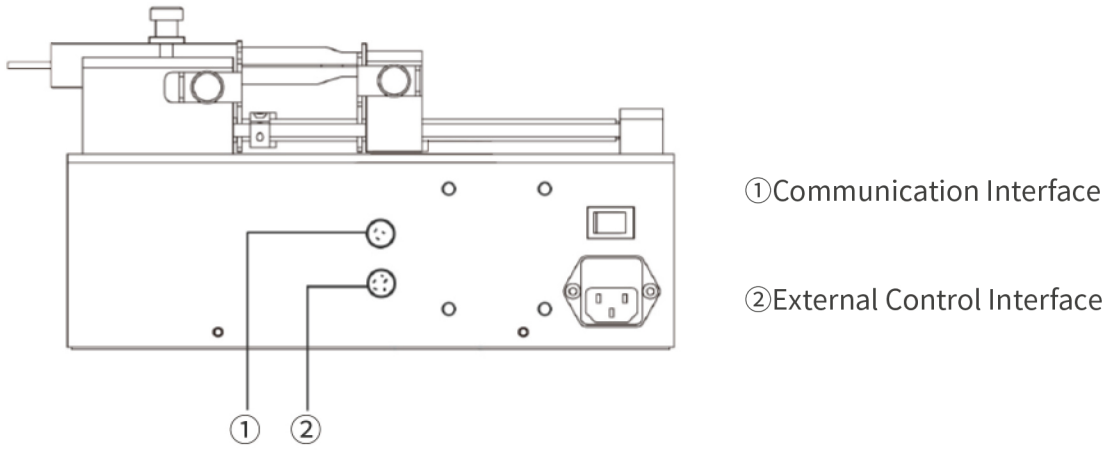
Glass Syringe	Inside Diameter(mm)	Flow Rate($\mu\text{L}/\text{min}$ - mL/min)
		SPLab01-G1/SPLab01-G2/SPLab02-G1
250 μL	2.30	0.021-0.548
500 μL	3.25	0.041-1.095
1mL	4.60	0.083-2.193
2.5mL	7.28	0.208-5.494
5mL	10.30	0.416-10.99
10mL	14.57	0.833-22.00
25mL	23.00	2.077-54.84
50mL	32.57	4.165-109.9
100mL	32.57	8.165-109.9

Microsyringe	Inside Diameter(mm)	Flow Rate($\mu\text{L}/\text{min}$ - mL/min)
		SPLab01/SPLab02
10 μL	0.50	1-25.91
25 μL	0.80	2.5-66.34
50 μL	1.10	4.75-125.4
100 μL	1.60	10-256.3

Technical Specifications

Working mode(Six)	Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous, additional mode (infusion/withdrawal, then exclude bubble)						
Channel number	1	2	4	6	8	10	12
Syringe size	10μL-150mL		10μL-10mL				
Syringe selection	Syringe size and customized diameter						
Linear speed range	5μm/min-132um/min(Flow rate=Linear speed* syringe inner cut area)						
Min. linear rate	5μm/min						
Linear force	≤25kgf						
Max. stroke	140mm						
Stoke resolution	0.078μm/μstep						
Accuracy	Error≤ ±0.5%, Stroke≥30% of maximum stroke						
Display mode	320×240TFT-LCD						
Control method	Rotary encoded switch and imported membrane keypad						
Power-off memory	Display the previous data parameter after power supply again						
External control	Active switch signal: 5V						
Communication interface	RS485, Modbus protocol(RTU mode)						
Power supply	AC 220V±10%(standard), AC 110V±10%(option)						
Condition temperature	0-40°C						
Relative humidity	<80%						
IP rate	IP31						
Dimension(mm)	282*213*150	282*241*157	282*241*157		282*241*157	282*241*157	282*241*157
Weight	5.26kg	5.40kg	5.40kg	5.66kg	5.78kg	5.96kg	6.16kg

Syringe Pump External Control Schematic



Dimension Drawing (Unit:mm)

