

Split Type Syringe Pump

SPC



Introduction

7 inch touch screen control, display 8 pump units working parameters and working state. Friendly interface, easy operation. Split type design, mainly for laboratory.

Features

Online flow rate modification function: Can adjust the flow rate during the pump is running;

Two working mode: Independent working mode, each unit working independently, can infuse or withdraw with different speed in same time or different time. Logic working mode, each unit working with time relationship, with different proportion infuse or withdraw. Users can choose each unit to be independent or logic working mode;

Intelligent calibration, ensure infuse volume accuracy. Online micro adjusting function, convenient to adjust the volume of one units, decrease volume error;

Real time monitor, animate diaply monitor result. Controller can receive traffic alarm of each unit;

Back distance setting, can exclude bubbles inside syringe, improve volume accuracy;

Fast forward and backward function used for loading syringe, washing and unlock traffic protection.

Interface Display

The interface displays 8 syringe units (unit1 to unit8) with their respective flow rates and directions. A speed display shows 0.00 rpm. The top right corner shows the date and time: 2017-01-01 00:00:00 AM. A settings panel for Unit1 is visible, showing: Unit1: Independent, Working mode: Infuse-withdraw, Syringe manufacturer: Air_Tite, Syringe: 2.5cc, Back distance: 30. Below the settings panel are icons for Effective unit, Logic steps, Fast forward/backward, Common mode, and Communication settings. At the bottom, there are buttons for Logic and Independent modes, along with a plus sign and a minus sign.

Speed display

Display area for dynamic working

Display area for setting parameter

Function setting area changeable by touching

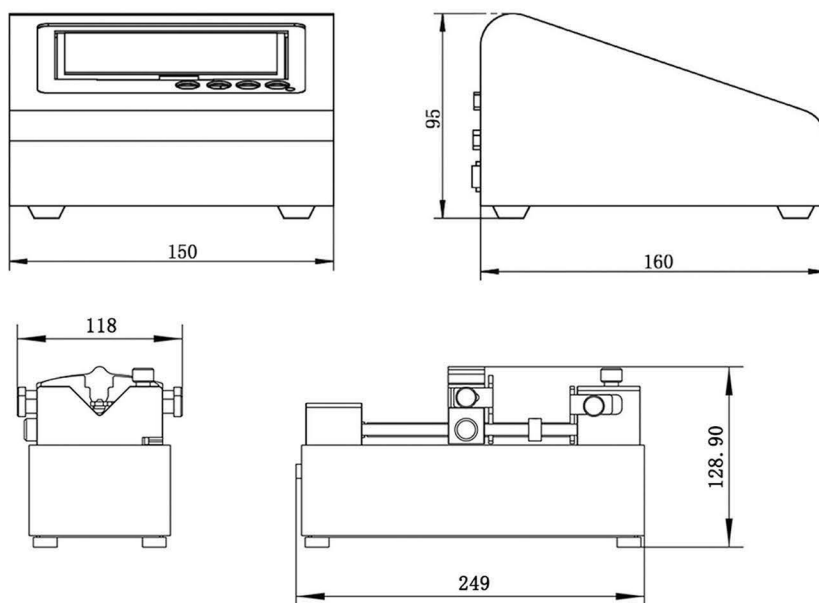
Applicable Syringes

Syringe	Inside Diameter(mm)	Flow Rate(μ L/min-mL/min)
1mL	4.70	0.0174-2.29
2mL	9.70	0.0739-9.755
5mL	12.48	0.1223-16.147
10mL	15.89	0.1983-26.177
20mL	20.00	0.3142-41.469
30mL	22.50	0.3976-52.484
50mL	28.90	0.6560-86.588

Glass Syringe	Inside Diameter(mm)	Flow Rate(μ L/min-mL/min)
250 μ L	2.30	0.0042-0.5484
500 μ L	3.25	0.0083-1.095
1mL	4.60	0.0167-2.2033
2.5mL	7.28	0.0416-5.4944
5mL	10.30	0.0833-10.9986
10mL	14.57	0.1667-22.0081
25mL	23.00	0.4166-54.9859
50mL	32.57	0.8321-109.976

Micro Syringe	Inside Diameter(mm)	Flow Rate(nL/min- μ L/min)
0.5 μ L	0.10	0.008-1.0296
1 μ L	0.15	0.018-2.3232
2 μ L	0.20	0.031-4.1448
5 μ L	0.35	0.096-12.6984
10 μ L	0.50	0.2-25.8
25 μ L	0.80	0.5-66.4
50 μ L	1.10	1-125.4
100 μ L	1.60	2-265.4

Dimension Drawing (Unit:mm)



Technical Specifications

Working mode(Five)	Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion
Pump unit	1-8 optional
Syringe size	Plastic syringe: 1mL-50mL; Glass syringe: 0.5μL-50mL
Syringe selection	Available of the mainly manufacturer, type and syringe from, also can define syringe ID in same time
Linear speed range	1μm/min-132mm/min(Flow rate=Linear speed* syringe inner cut area)
Min. linear rate	1μm/min
Linear force	≥16Kgf
Max. stroke	90mm
Stoke resolution	0.078μm/μstep
Accuracy	Stroke≥30% maximum stroke,Error≤ ±0.5%
Back distance	0.01-5mm
Working mode	Independent working mode
Stored modes	5 group data of each running mode
Display	Industrial grade 7"LCD color display
Control method	Touch screen
Power-off memory	Display the previous data parameter after power supply again
External control signal	Start/stop signal,active switch signal (5-24V universal), All start/stop signal, passive switch signal, such as foot pedal switch
Communication interface	RS232/RS485, Modbus protocol(RTU mode)
Controller Power supply	DC5V/10W
Pump unit power supply	DC24V/30W
Condition temperature	0-40°C
Relative humidity	<80%
IP rate	IP31
Controller dimension	240×221×111 (mm)
Controller weight	2.0kg
Pump unit dimension	257×110×131 (mm)
Pump unit weight	3.0kg