

Intelligent Syringe Pump

SPL



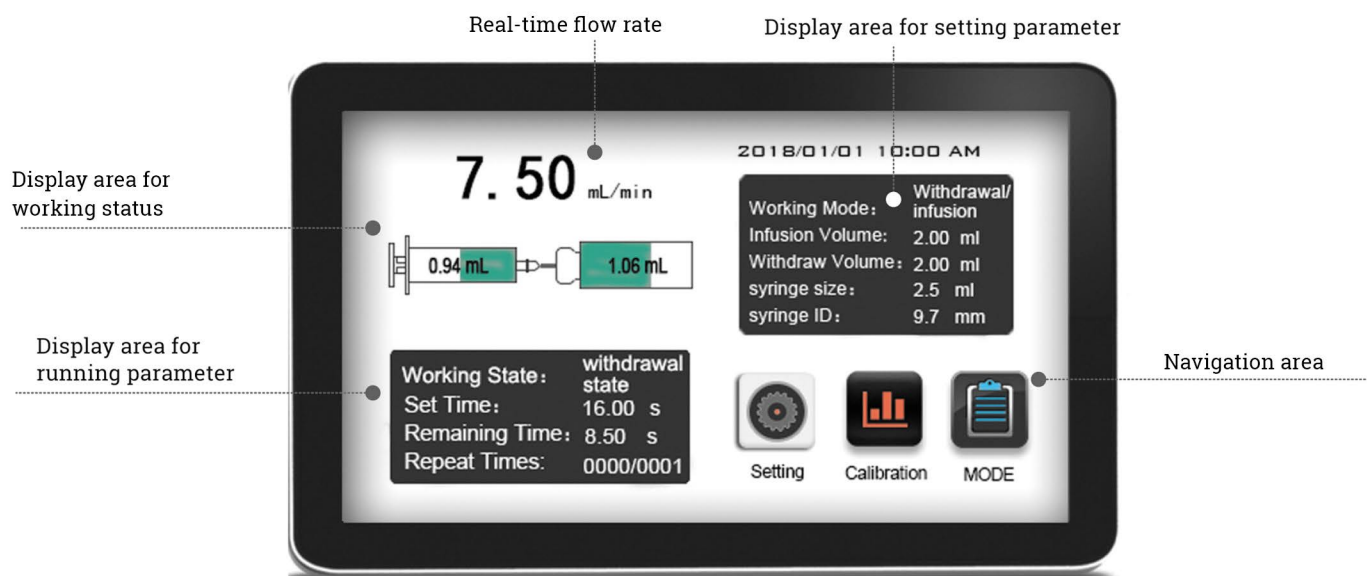
Introduction

SPL series, with 4.3" full color touch screen and mechanical keypad control, easy and convenient operation. Support RS232 and RS485 communication, multiple external control interfaces, convenient for users to remotely control under different conditions. N70/N70S push-pull pump unit, stable flow rate, compact structure and small size, convenient to be integrated. Stereotaxic compatible.

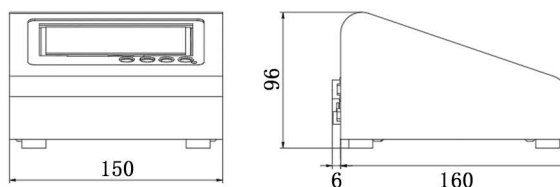
Features

1. Compact structure and light weight makes it ideal for hand-held or stereotaxic injection.
2. Stable flow rate, suitable for high precision transferring of micro volume.
3. Adjustable linear force.
4. 4 working modes: Infusion, withdrawal, infusion-withdrawal, withdrawal-infusion. The parameters of different working modes are saved independently without affecting each other.
5. Built-in multiple syringe models, also can set customized syringe inner diameter.
6. 4.3" full color LCD screen display, touch screen control. Friendly operating interface, the LCD screen displays technical datas in real time.
7. Two metering methods are available for selection: Infusion volume-infusion flow rate; infusion volume-infusion time. The infusion volume displayed in real time, also support calibration function.

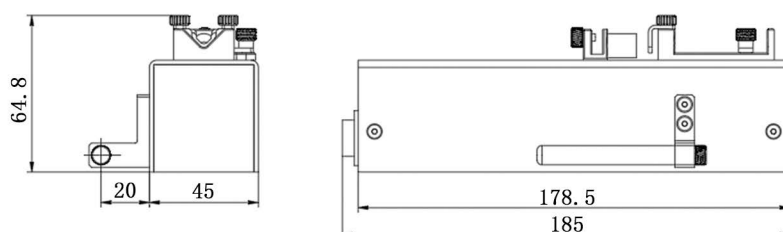
Interface display



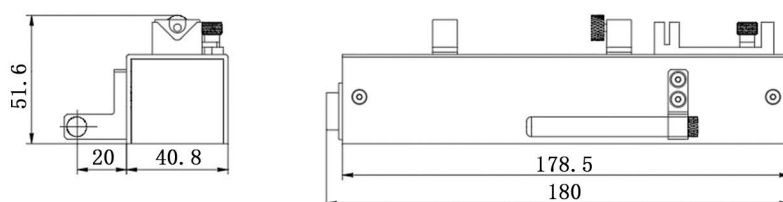
Dimension Drawing (Unit: mm)



Controller Dimension Drawing

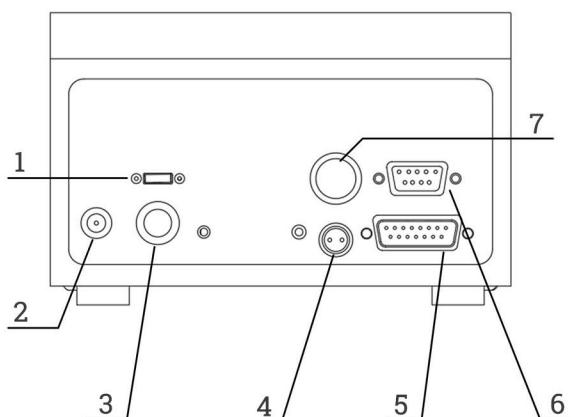


N70 Dimension Drawing



N70S Dimension Drawing

Introduction



- 1-TypeC Interface
- 2-Power socket
- 3-Power switch
- 4-Foot pedal interface
- 5-15 Pin interface
- 6-9 Pin interface
- 7-Aviation plug interface

Technical Specifications

Working Mode	Infusion, Withdrawal, Infusion-Withdrawal, Withdrawal-Infusion, Continuous	
Syringe Size	N70S(0.5uL-100uL)	N70(5uL-1000uL)
Syringe Selection	Built in syringe model and customizable syringe inner diameter	
Linear Speed Range	0.6096um/min-152.4m/min	0.8um/min-200mm/min
Linear Speed Resolution	0.6096um/min	0.8um/min
Linear Force	≤13N (Adjustable)	≤40N (Adjustable)
Stroke Resolution	0.19um/μstep	0.25um/μstep
Max. Stroke	70mm	
Accuracy	Error≤±0.3%(Stroke≥30% of Max. stroke)	
Back Distance	0.01-10mm	
Common Mode	Up to 60 commonly used modes can be saved	
Display	4.3" full colour LCD screen	
Control	Touch screen and keypads	
External Control Signal	Start/stop signal, active switch signal: 5-24V.	
	Start/stop signal, passive switch signal, such as foot pedal.	
Communication Interface	RS232/RS485(Modbus protocol, RTU mode)	
Power Supply	DC24V/1.25A	
Condition Temperature	0-40℃	
Relative Humidity	<80%	
IP Rate	IP31	
Dimension	150*166*96mm (Controller) , 185*65*64.8mm (N70 Pump unit) , 185*60.8*51.6mm (N70s Pump Unit)	
Weight	1.062kg (Controller) , 0.469kg (N70 Pump unit) , 0.355kg (N70s Pump unit)	

Applicable Syringes

N70S Flow Rate Chart

GAUGE	Inner Diameter(mm)	Flow Rate (nL/min-μL/min)
0.5	0.1	0.005 - 1.1975
1	0.15	0.011- 2.6925
2	0.2	0.019- 4.7875
5	0.35	0.059- 14.6625
10	0.5	0.119- 29.9225
25	0.8	0.306- 76.605
50	1.1	0.579- 144.83
100	1.6	1.225- 306.4175

N70 Flow Rate Chart

GAUGE	Inner Diameter(mm)	Flow Rate (nL/min-μL/min)
5	0.35	0.077- 19.2425
10	0.5	0.157- 39.270
25	0.8	0.402- 100.530
50	1.1	0.76- 190.067
100	1.6	1.608- 402.125
250	2.31	3.353- 838.192
500	3.25	6.636- 1659.15
1000	4.61	13.353- 3338.27