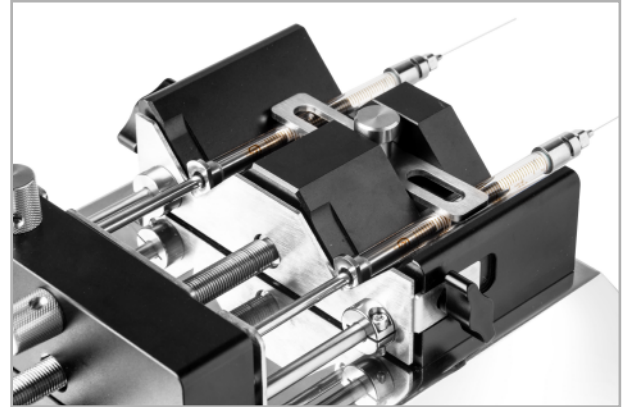
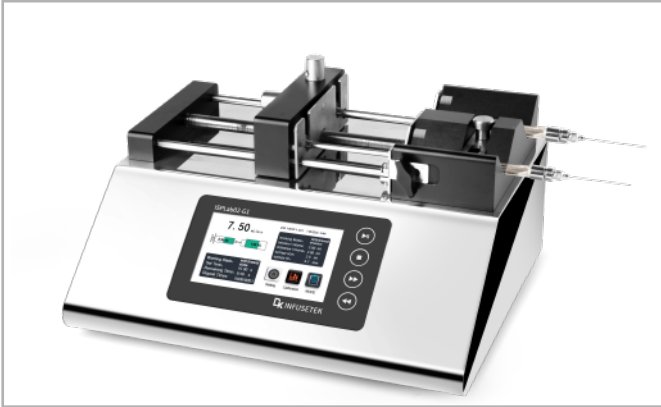


Intelligent syringe pump ISPLab02-G1



Introduction

The intelligent syringe pump with infusion/withdrawal mode, stainless steel body, and 4.3" color LCD screen is easy to operate. It can install and fix different types of injectors or syringes in the same time, and it is suitable for transferring micro flow rates with high precision (non-medical).

Features

- 1.Online flow rate modification function:** The pump is running, without stopping, adjust the flow rate at any time to meet complex application.
- 2.Colorful LCD display:** Friendly interface, 4.3 inch LCD display every technical parameter in real time.
- 3.Input syringe inner diameter function:** Can choose the injector from the list or input the injector inner diameter directly.
- 4.Two measurement mode for selection:** Infusion volume --- Infusion flow rate, Infusion volume --- Infusion time.
- 5.4 different working modes:** Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion. The parameters of each working mode saving separately. Each working mode can be changed to continuous mode by setting repeat parameters.
- 6.Alarm function:** The pump will stall and give an alarm when the drive structure of the pump is blocked.

Interface Display

Real-time display flow rate Display area for setting parameter

Display area for dynamic working

Display area for running parameter

Function setting area changeable by touching

2018/01/01 10:00 AM

Working Mode: Withdrawal/infusion

Infusion Volume: 2.00 ml

Withdraw Volume: 2.00 ml

syringe size: 2.5 ml

syringe ID: 9.7 mm

Setting Calibration MODE

Working State: withdrawal state

Set Time: 16.00 s

Remaining Time: 8.50 s

Repeat Times: 0000/0001

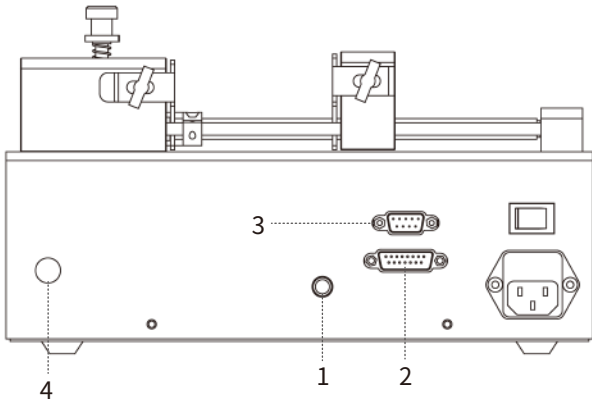
Technical Specifications

| | |
|-------------------------|--|
| Working mode | Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion |
| Channel number | 2 |
| Syringe size | 250 μ L-25mL |
| Syringe selection | Syringe size and customized diameter |
| Linear speed range | 1 μ m/min-132mm/min(Flow rate=Linear speed* syringe inner cut area) |
| Min. linear rate | 1 μ m/min |
| Linear force | 8-20kgf, online adjust |
| Max. stroke | 140mm |
| Stoke resolution | 0.078 μ m/ μ step |
| Accuracy | Error $\leq \pm 0.3\%$ (Stoke $\geq 30\%$ of maximum stroke) |
| Back distance | 0.01-10mm |
| Stored modes | Can save at most 60 common modes |
| Display | Industrial grade 4.3" LCD color display |
| Control method | Touch screen and Mechanical keypad |
| Power-off memory | Display the previous data parameter after power supply again |
| Output | OC gate signal output,used to indicate running status and direction |
| External control | Start/stop signal, withdrawal and infusion signal, active switch signal: (5-24V) |
| | Start/stop signal, passive switch signal, such as foot pedal switch |
| Communication interface | RS232/RS485, Modbus protocol(RTU mode) |
| Power supply | AC90-240V/65W |
| Condition temperature | 0-40 $^{\circ}$ C |
| Relative humidity | <80% |
| IP rate | IP31 |
| Dimension(mm) | 282*242*157 |
| Weight | 4.62kg |

Technical Specifications

| Glass syringe | Inside Diameter(mm) | Flow Rate($\mu\text{L}/\text{min}$ - mL/min) |
|-------------------|---------------------|--|
| | | ISPLab01-G1/ISPLab01-G2/ISPLab02-G1 |
| 250 μL | 2.30 | 0.0042-0.5484 |
| 500 μL | 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 |

Syringe Pump External Control Schematic



- 1-Foot pedal connector: Connect with foot pedal switch
- 2-15 Pin connector: External input and output
- 3-9 pin connector: RS232 and RS485
- 4-Ground pole

Dimension Drawing (Unit:mm)

