

# Constinfuse-Continuous Flow Syringe Pump

## CFSP-I



## Introduction

Constinfuse- continuous flow syringe pump , focusing on the transferring and dispensing of “micro-liter” liquids. By controlling a group of alternate “withdrawal-infusion” pump units, cooperating with reversing valve, the “constant infusion” function is realized. Which not only retains the transferring accuracy of the micro volume syringe pump, but also realizes the “uninterrupted transferring” of the liquid.

## Features

High precision and uninterrupted transferring of micro-liter liquids.

Four working modes: Continuous transferring; Fixed volume measurement; Dispensing; Timing start/stop.

4.3-inch industrial-grade true color LCD screen display, friendly operation interface and synchronous simulation animation, allowing users to operate conveniently.

Multiple external control interfaces to meet various supporting needs.

Record the number of times the valve and syringe are used, which is convenient for equipment maintenance.

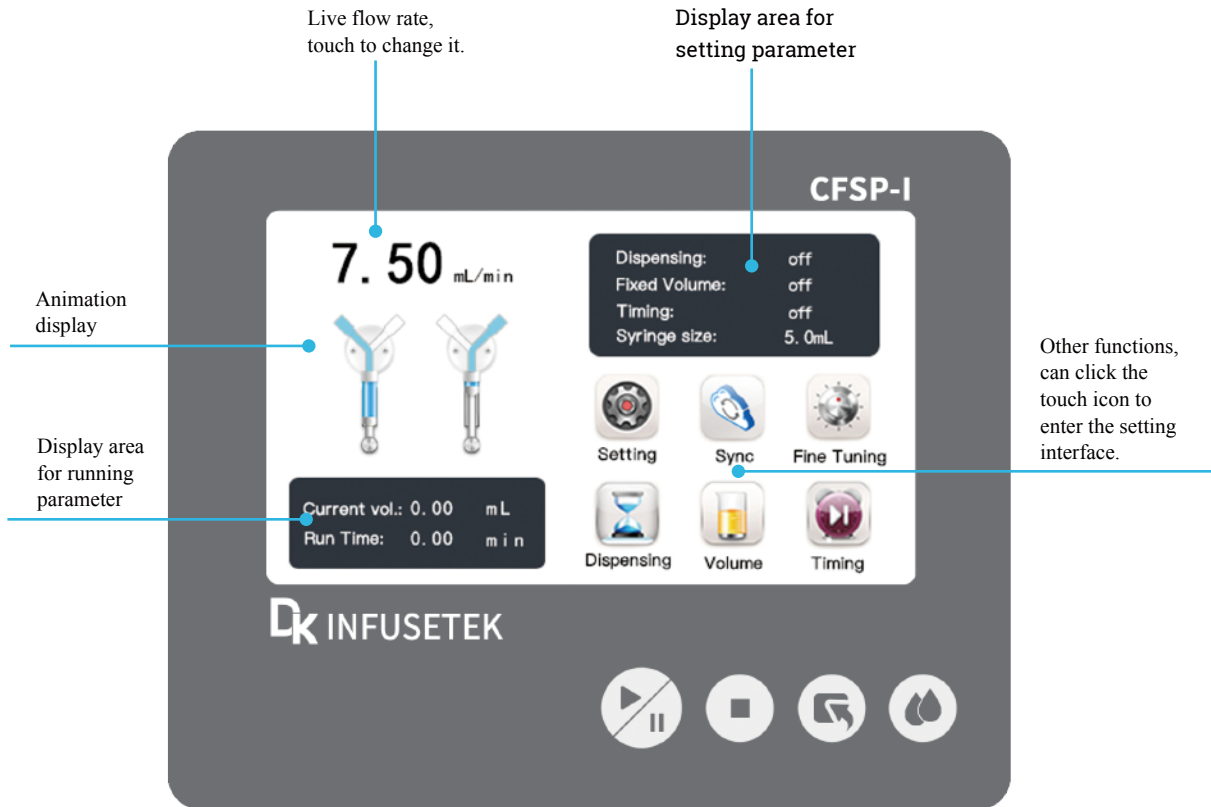
The pump unit supports “offline” operation, which enables one controller to set different parameters for pump units, which is convenient for users to use together with other equipments.

The controller has offline reminder and parameter synchronization function. Intelligent calibration function.

Closed-loop control, overload protection function, effectively protect the syringe.

Quiet design. 304 stainless steel spray shell.

**OSD**



**Technical Specifications**

Flow Rate	0.06 $\mu$ L/min-70mL/min (Pure water, and the length of the tube at the liquid inlet is less than 1 meter, and the inner diameter is 1.6mm)
Accuracy	$\leq\pm 0.05\%$ (Maximum stroke, 500 $\mu$ L or more syringe, pure water at room temperature)
Communication	RS232 and RS485, support Modbus protocol, RTU mode
External Control	Passive switch signal: Start/pause function. For example: Foot pedal switch.
	Active switch signal: Start/pause, stop, washing, initialization function. 5-24V universal.
Output	Indicates liquid output status (Open collector output)
Display	4.3 inch industrial-grade true color LCD screen
Control	Touch screen and keypad
Maximum pressure of liquid path	0.68Mpa
Valve Type	3 port 120° valve
Tube Connection Interface	1/4-28UNF
Syringe Size	50 $\mu$ L, 100 $\mu$ L, 250 $\mu$ L, 500 $\mu$ L, 1.0mL, 2.5 mL, 5.0 mL, 10 mL, 25 mL
Power Supply	Pump Unit: Standard 24V adapter      Controller: Standard 5V adapter
Environment Temperature	15°C-40°C
Relative Humidity	<80%(RH)

## Different Syringes Flow Rate Range

Syringe Model	Min Flow Rate	Max Flow Rate
50uL	0.0625uL/min	608.37uL/min
100uL	0.125uL/min	1.21mL/min
250uL	0.3125uL/min	3.04mL/min
500uL	0.625uL/min	6.08mL/min
1.0mL	1.25uL/min	12.16mL/min
2.5mL	3.125uL/min	30.41mL/min
5.0mL	6.25uL/min	60.83mL/min
10mL	12.5uL/min	70.00mL/min
25mL	31.25uL/min	55.00mL/min

Testing condition:

Outlet and inlet tube size is 3.2mm\*1.6mm, Length is 1m,

Liquid is pure water. Tube size,length and liquid will affect the flow rate.

## Dimension Drawing (Unit: mm)

