

# LSP01-1C Syringe Pump



This pump is a two-syringe push-pull syringe pump. The acceptable syringes are from 10 $\mu$ L to 10mL. Suitable for high accuracy and small flow rate liquid continuously transferring.

## Functions and Features

**Syringe selection:** The syringe can be selected in the manufacturer table which includes manufacturer, material and size or input the inner diameter of the syringe barrel directly

**Easy to operate:** Combining big screen LCD display with rotary encoder switch and membrane keypad makes the operation simple and prompt

**Working mode:** Push-pull

**Memory function:**

1. The parameters are saved in EEPROM. The parameters don't need to be reset when power returns after an interruption
2. In flow rate mode, the pump remains running or stop according to the setting parameters when power returns after an interruption

**Protection function:** The pump will stall and give an alarm when the drive structure of the pump is blocked

**Communication function:** Realize computer control through RS485 communication interface

**External control function:** Input/output control

**Calibration function:** Acquire accurate volume through calibration

**Syringe protection:** Adjust syringe rest to prevent syringe from damaging

## Specifications

Syringe size	10 $\mu$ L - 10mL
Linear force	9kg
Advance per microstep	0.156 $\mu$ m (1/16step)
Infusion volume per Microstep	0.026 $\mu$ L (10mL syringe 1/16step)
Max. step rate	6933 (1/16step)/sec
Min. step rate	16 (1/16step)/30sec
Max. linear rate	65mm/min
Min. linear rate	5 $\mu$ m/min
Flow rates	0.831nL/min - 10.84mL/min
Accuracy	$\leq$ 0.5% error in the condition of $\geq$ 30% of max. Infusion distance
Operating mode	Rotary coded switch and membrane keypad
Display	128 $\times$ 64 graphic LCD
Power	AC100-240V
Operating condition	Temperature 5 $^{\circ}$ C - 40 $^{\circ}$ C Relative humidity <80%
Dimensions	280 $\times$ 220 $\times$ 140 (mm) (L $\times$ W $\times$ H)
Weight	3.6kg

Syringe Pump	Part Number	Syringe	Inner Diameter (mm)	Flow Rates	Linear Rate	Weight (kg)
LSP01 - 1C	0503421	10 $\mu$ L	0.46	0.049 $\mu$ L/hr - 10.80 $\mu$ L/min	5 $\mu$ m/min - 65mm/min	3.6
		1mL	4.61	5.007 $\mu$ L/hr - 1085 $\mu$ L/min		
		2.5mL	7.28	12.49 $\mu$ L/hr - 2706 $\mu$ L/min		
		5mL	10.30	25.00 $\mu$ L/hr - 5415 $\mu$ L/min		
		10mL	14.57	50.02 $\mu$ L/hr - 10833 $\mu$ L/min		

Note: Flow rates=Linear rate $\times$ Section area of the barrel

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