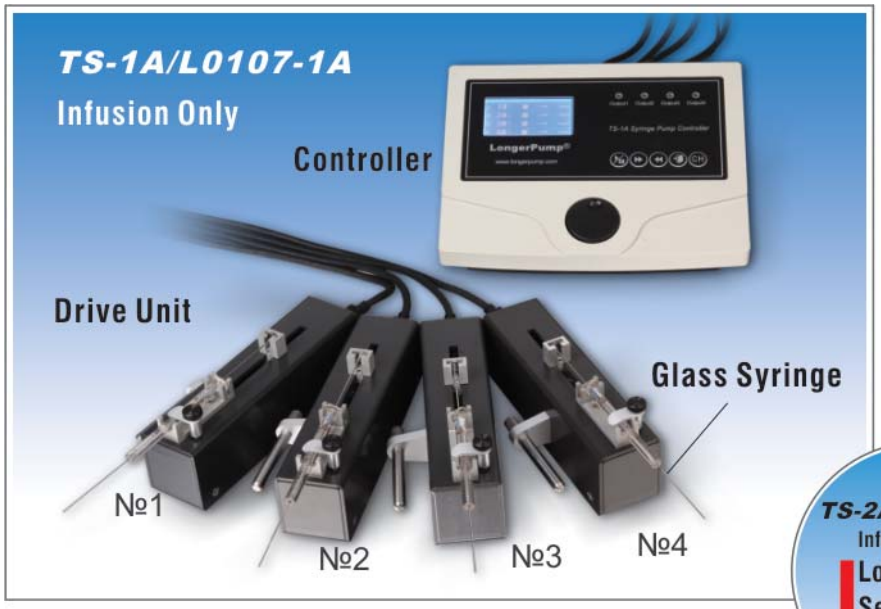
TS-1A/L0107-1A
TS-2A/L0107-2A SYRINGE PUMP



The pumps combine precison, compact size, multiple functions with ease of operation. It can hold μL unit standard glass syringe. The features of accurate distance control and broad linear speed range (7.9μm/min-79.4mm/min) can meet versatile requirements. The drive unit is separate, easy to installation and combination. Its vertical (horizontal) installation structure makes this pump easily used in micromanipulator, stereotaxic instrument for various biologic research applications.

TS-2A/L0107-2A
Infusion/Withdrawal
Lock devices
See
View

Specifications

Max. infusion distance: 70 mm
Acceptable glass syringe: 5 μL - 1000 μL
Linear speed: 7.9 μm/min - 79.4 mm/min
Adjusting resolution: 7.9 μm/min
Distance resolution: 0.165 μm
Linear force: > 20 N
Setting mode: Membrane keypad and rotary encoded switch
Accuracy: ≤ ± 0.5% error in the condition of ≥ 30% of max. infusion distance
Display: 128×64 graphic LCD
External control: Start/Stop control, fast forward control, fast reverse control
Communication interface: RS485
Power: AC 100 V - 240 V or DC 12 V
Power consumption: < 40 W
Operating condition: Temperature 0 - 40 °C
Relative humidity < 80 %
Controller dimensions (L × W × H):
170×108×65 (mm)
Controller weight: 0.9 kg
Drive unit dimensions (L × W × H):
180×46×78 (mm)
Drive unit weight: 0.6 kg
IP rating: IP 21

Functions and Features

Parameters setting: The parameters of each channel can be different.
Running control: Each drive unit can be controlled separately; Or four drive units can be controlled to run simultaneously or run at different time.
Channel copy: All drive units can run according to the parameters of one drive units of them
Delaying startup: Delaying startup time of each channel can be controlled separately
Memory functon: Select resume operaton or remain stopped when power returns after an interruption
Block protection: When one drive unit stops accidently, the system will warm and stop
Working mode: TS-1A/L0107-1A: Infusion
TS-2A/L0107-2A: Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous
External control: Start/stop input control signal which is pulse mode to swith the states of start and stop
Each channel has two ways OC gate output to indicate the start/stop and direction of the channel
Communication: Realize computer control through RS485 communication interface

Main Functions for Each Channel

Syringe selection: The syringe can be selected in the manufacturer table which includes manufacturer, material and size
User-defined glass syringe: Save 4 inner diameters of user-defined glass syringe barrel
Parameters setting: Set dispensing volume, infusion time, pause time and copy number
Display mode selection: Different parameters (volume, flow rate, linear speed) can be selected in the main display interface
Fast forward & fast reverse: Infusion or withdrawal at the max. speed
Calibration: Acquire accurate volume through calibration

Syringe Pump (Part Number)	Glass Syringe Specification (μL)	Barrel Inner Diameter (mm)	Effective Stroke (mm)	Flow Rates (nL/min - μL/min)	Syringe Material	Weight (kg)
TS - 1A / L0107 - 1A (0503151) (0503001)	5	0.35	51.97	0.764 - 7.64	Glass Syringe	Controller 0.8 Drive Unit 0.6
	10	0.50	50.93	1.559 - 15.59		
	25	0.80	49.74	3.989 - 39.89		
	50	1.10	52.61	7.544 - 75.44		
TS - 2A / L0107 - 2A (0503161) (0503011)	100	1.60	49.74	15.96 - 159.6		
	250	2.30	60.17	32.98 - 329.8		
	500	3.25	60.27	65.85 - 658.5		
	1000	4.61	59.91	132.5 - 1325		

Note: Flow rates = Linear rate × Section area of the barrel