



Precision Fluid Control Series



Industrial Syringe Pump

SY-03B

Product Technical Specification | July 2026

Nanjing Jiuyuhui Environmental Technology Co., Ltd.
www.jiuyuhub.com

Product Overview

The SY-03B syringe pump is built for continuous high-precision liquid delivery. It accommodates 25 μL ~25 mL syringes and 3- to 15-port switching valves, enabling complex flow control such as autosampling, dilution, and dispensing. With a 60 mm long stroke, 0.1~600 rpm speed range, and RS232/RS485/CAN buses, it serves as a reliable fluid-control core for advanced analytical instruments, medical devices, and industrial OEM systems.

60 mm Stroke

25 μ L~25 mL

0.1~600 rpm

Multi-Valve

Programmable

Key Features



60 mm Long Stroke

6,000 steps standard mode for large-volume precise dispensing.



Wide Syringe & Valve Range

25 μ L~25 mL syringes; M01~M10 valves.



High Accuracy

Accuracy $\leq 1\%$, repeatability 0.3%~0.5%.



Programmable Control

Acceleration, speed, position and clearance compensation configurable.



Multi-Bus Comm.

RS232/RS485/CAN for easy automation integration.



DC24V/3A

Industrial standard supply, max 35 W.

Technical Specifications

Parameter	Specification
Model	SY-03B
Principle	Precision positive-displacement syringe pump
Accuracy	≤1% @ 100% rated stroke
Repeatability	0.3%~0.5% @ 100% rated stroke
Rated Stroke	60 mm (6,000 steps standard; 48,000 steps micro-step)
Speed Range	0.1~600 rpm
Linear Speed	0.01~60 mm/s (water; 1 rated stroke/cycle)
Stroke Runtime	1~6000 s
Resolution	0.01 mm/step
Syringe Sizes	25 μL / 50 μL / 100 μL / 250 μL / 500 μL / 1 mL / 2.5 mL / 5 mL / 10 mL / 25 mL
Valve Options	M01 / M02 / M03 / M04 / M05 / M06 / M07 / M08 / M09 / M10
Wetted Material	Borosilicate glass, PTFE, Sapphire, PCTFE
Max Pressure	0.7 MPa
Actuator	Trapezoidal screw (lead 6 mm / 1 mm)
Connection	1/4-28UNF
Communication	RS232 / RS485 / CAN

Baud Rate	RS232/RS485: 9600/38400 bps; CAN: 100 kbps~1 Mbps
Device Address	Up to 15 independent addresses
Power Supply	DC24V / 3A
Max Power	35 W
Operating Temp.	5~55 °C
Relative Humidity	<80% non-condensing
Dimension	65 × 145.5 × 253.3 mm
Net Weight	2.2 kg
Maintenance	Stepper motor maintenance-free; periodic valve-head cleaning and seal replacement
Application	Microfluidics, chromatography injection, IVD, online analyzers, automated liquid-handling workstations

Typical Applications

- ▶ Microfluidic chip liquid driving
- ▶ HPLC autosampler injection
- ▶ Medical analyzer reagent dispensing
- ▶ Online water-quality analyzer reagent dosing
- ▶ Industrial OEM dilution/dispensing

Ordering Guide

Product Code	Description
SY-03B	Syringe pump body + long-stroke syringe + multi-port valve (optional)

Accessories/Consumables

Accessory	Specification	Note
Glass Syringe	25 μL~25 mL	Volume-dependent
Multi-Port Valve	M01~M10	Channel-dependent
Tubing Fitting	1/4-28UNF	Standard

Why Choose Jiuyuhub

 **Application-First Matching**
Selection based on sample volume and flow complexity.

 **Southeast Asia Adapted**
Stable operation in hot/humid laboratory environments.

 **One-Stop Supply**
Pumps, valves, tubing and samplers supplied together.

 **24-Hour Response**
Fast selection and troubleshooting support.

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