



JiuYuHub

Precision Fluid Control Series



Industrial Syringe Pump

SY-01B

Product Technical Specification | July 2026

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

Product Overview

The SY-01B is a high-precision industrial syringe pump designed for microliter-to-milliliter precision liquid handling. Its open-frame architecture supports external computer or microprocessor control for automatic pipetting, dilution, and dispensing. With RS232/RS485/CAN multi-bus communication and up to 15 individually addressable pumps, it is ideal for in-vitro diagnostics, chromatography, online water-quality analyzers, and biopharmaceutical fluid transfer systems.

- Microliter to Milliliter
- ≤1% Accuracy
- RS232/RS485/CAN
- Daisy-Chain
- Industrial OEM

Key Features



High Precision
Accuracy ≤1%, repeatability 0.3%~0.5% @ rated stroke.



30 mm Rated Stroke
12,000 steps standard mode, 0.0025 mm step resolution.



Wide Syringe Range
25 µL to 5 mL syringe volumes.



Multi-Bus Comm.
RS232/RS485/CAN with ASCII/custom/Modbus protocols.



Daisy-Chainable
Up to 15 independent addresses for multi-pump systems.



DC24V Power
Industrial standard supply for easy instrument integration.

Technical Specifications

Parameter	Specification
Model	SY-01B
Principle	Precision positive-displacement syringe pump
Accuracy	≤1% @ 100% rated stroke
Repeatability	0.3%~0.5% @ 100% rated stroke
Rated Stroke	30 mm (12,000 steps standard; 96,000 steps micro-step)
Max Speed	450 rpm
Linear Speed	0.0067~15 mm/s (water; 1 rated stroke/cycle)
Stroke Runtime	2~4500 s
Resolution	0.0025 mm/step
Syringe Sizes	25 µL / 50 µL / 125 µL / 250 µL / 500 µL / 1.25 mL / 2.5 mL / 5 mL
Valve Options	M01 / M02 / M03 / M04 / M05 / M06 / M10 / M12
Wetted Material	Borosilicate glass, PTFE, Sapphire, PCTFE
Max Pressure	0.7 MPa
Actuator	Trapezoidal screw (lead 1 mm / 2 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	25 W
Operating Temp.	5~55 °C
Relative Humidity	<80% non-condensing
Dimension	45 × 143.3 × 127 mm
Net Weight	1.5 kg
Maintenance	Brushless stepper motor maintenance-free; periodic syringe seal replacement
Application	IVD analyzers, chromatography sampling, online water-quality analyzers, biopharma, automated lab dilution/dispensing

Typical Applications

- ▶ In-vitro diagnostic analyzer sampling
- ▶ LC/GC autosampler injection
- ▶ Online water-quality analyzer reagent dosing
- ▶ Biopharmaceutical extraction and dispensing
- ▶ Automated lab dilution, titration and aliquoting

Ordering Guide

Product Code	Description
SY-01B	Syringe pump body + syringe + distribution valve (optional)

Accessories/Consumables

Accessory	Specification	Note
Glass Syringe	25 µL~5 mL	Volume-dependent
Distribution Valve	M01~M12	Channel-dependent
Connection Tubing	1/4-28UNF	Standard

Why Choose Jiuyuhub

**Application-First Matching**
Recommend the optimal pump/valve combination for your process.

**Southeast Asia Adapted**
Wide 5~55 °C range for tropical laboratory environments.

**One-Stop Supply**
Water quality + fluid control + analytical accessories.

**24-Hour Response**
Fast response to selection and after-sales inquiries.

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