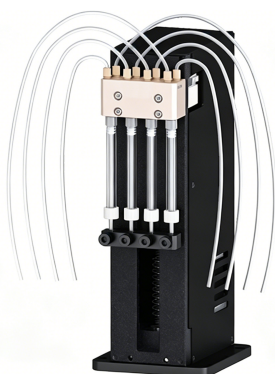




JiuYuHub

Precision Fluid Control Series



Parallel Micro Syringe Pump

SY-03B Parallel

Product Technical Specification | July 2026

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Product Overview

The SY-03B parallel micro syringe pump is developed on the SY-03B platform and uses a parallel pump-group architecture to drive multiple independent syringes simultaneously or alternately. Each channel retains the 60 mm long stroke, $\leq 1\%$ accuracy, and 0.3%~0.5% repeatability, supporting ASCII/Modbus protocols over RS232/RS485/CAN. It is ideal for high-throughput sampling, redundant dosing, and multi-reagent proportioning systems.

- Parallel Multi-Channel
- 60 mm Stroke
- Sync/Alternate Delivery
- ASCII/Modbus
- High Throughput

Key Features



Parallel Architecture

Multi-pump coordination for synchronous or alternating delivery.



60 mm Long Stroke

6,000 steps standard mode per channel, 0.01 mm resolution.



Per-Channel Precision

$\leq 1\%$ accuracy, 0.3%~0.5% repeatability per channel.



Standard Buses

RS232/RS485/CAN with ASCII/Modbus protocols.



Wide Syringe & Valve Range

25 μ L~25 mL syringes; multi-port valves optional.



Programmable

Speed, position, acceleration/deceleration and clearance compensation.

Technical Specifications

Parameter	Specification
Model	SY-03B Parallel Micro Syringe Pump
Principle	Multi-channel positive-displacement syringe pump array
Accuracy	$\leq 1\%$ @ 100% rated stroke (per channel)
Repeatability	0.3%~0.5% @ 100% rated stroke (per channel)
Rated Stroke	60 mm/channel (6,000 steps standard mode)
Speed Range	0.1~600 rpm (per channel)
Linear Speed	0.01~60 mm/s (water; per channel)
Resolution	0.01 mm/step
Syringe Sizes	25 μ L~25 mL/channel
Valve Options	M01~M10 series (per channel configuration)
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
Protocol	ASCII / Custom / Modbus

Power Supply	DC24V / 3A (typical per channel)
Operating Temp.	5~55 °C
Relative Humidity	<80% non-condensing
Maintenance	Periodic valve-head cleaning and seal replacement; motor maintenance-free
Application	High-throughput autosampling, multi-reagent proportioning, redundant dosing, parallel reactor systems

Typical Applications

- ▶ High-throughput screening platform sampling
- ▶ Multi-reagent automatic proportioning
- ▶ Redundant chemical dosing
- ▶ Parallel reactor liquid distribution
- ▶ Online multi-parameter analyzer reagent dosing

Ordering Guide

Product Code	Description
SY-03B-Parallel	Parallel pump group + syringes + valve group (channel count configurable)

Accessories/Consumables

Accessory	Specification	Note
Glass Syringe	25 µL~25 mL/channel	Volume-dependent
Multi-Port Valve Group	M01~M10	Channel-dependent
Parallel Mounting Bracket	Per channel count	Optional

Why Choose Jiuyuhub

**Application-First Matching**
Customized schemes by channel count and synchronization needs.

**Southeast Asia Adapted**
Reliable continuous operation in tropical laboratories.

**One-Stop Supply**
Parallel pump groups, valve groups and tubing integrated.

**24-Hour Response**
Fast response for scheme design and integration.

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