



JiYuHub

Precision Fluid Control Series



Vertical Syringe Pump

SY-08

Product Technical Specification | July 2026

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Product Overview

The SY-08 vertical syringe pump uses an upright structure with an encoder feedback system for enhanced anti-interference performance and step-loss prevention. It supports ASCII, custom, and Modbus protocols and accommodates 5 mL/12.5 mL/25 mL large-volume syringes. Single- or dual-channel configurations and optional integrated/external drivers make it suitable for analytical instruments, online monitors, and laboratory automation where space and accuracy are both critical.

- Vertical Design
- Encoder Feedback
- 5/12.5/25 mL
- Single/Dual Channel
- Optional Driver

Key Features



Vertical Compact Structure
Upright mounting saves horizontal space.



Encoder Closed-Loop
Enhanced anti-interference and step-loss prevention.



Large-Volume Syringes
5 mL / 12.5 mL / 25 mL options.



Single/Dual Channel
Flexible configuration by flow complexity.



Optional Driver
Integrated or external driver to match control architecture.



Multi-Protocol
ASCII / Custom / Modbus protocols.

Technical Specifications

Parameter	Specification
Model	SY-08
Principle	Precision positive-displacement syringe pump
Accuracy	≤1% @ 100% rated stroke
Repeatability	0.3%~0.7% @ 100% rated stroke
Syringe Sizes	5 mL / 12.5 mL / 25 mL (30 mm stroke)
Max Speed	300 rpm
Min Dispense Volume	0.416 μL (reference)
Actuator	Corrosion-resistant trapezoidal screw
Channel Type	Single / Dual channel
Driver	Optional integrated/external
Wetted Material	Borosilicate glass, PTFE, PCTFE
Pressure Rating	Positive 0~0.8 MPa; negative 0~0.06 MPa (reference)
Connection	1/4-28UNF
Communication	RS232 / RS485 / CAN
Protocol	ASCII / Custom / Modbus
Power Supply	DC24V / 3A

Operating Temp.	5~55 °C
Relative Humidity	≤80% non-condensing
Dimension	42 × 42 × 191 mm (5 mL, without driver); 42 × 42 × 206.2 mm (with driver)
Maintenance	Periodic screw and seal cleaning; avoid dry running
Application	Online water-quality analyzer dosing, chromatography autosampling, IVD, automated lab dispensing

Typical Applications

- ▶ Online water-quality analyzer reagent dosing
- ▶ HPLC autosampler injection
- ▶ In-vitro diagnostic devices
- ▶ Automated lab dilution/dispensing
- ▶ Industrial process analysis sampling

Ordering Guide

Product Code	Description
SY-08	Vertical pump + 5/12.5/25 mL syringe + single/dual-channel valve (optional)

Accessories/Consumables

Accessory	Specification	Note
Glass Syringe	5/12.5/25 mL	Volume-dependent
Switching Valve	Single/Dual channel	Config-dependent
Driver	Integrated/External	Optional

Why Choose Jiuyuhub

**Application-First Matching**
Vertical solutions based on space and volume needs.

**Southeast Asia Adapted**
Encoder closed-loop improves stability in hot/humid environments.

**One-Stop Supply**
Pumps, valves, syringes and drivers selected together.

**24-Hour Response**
Fast integration scheme and technical support.

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