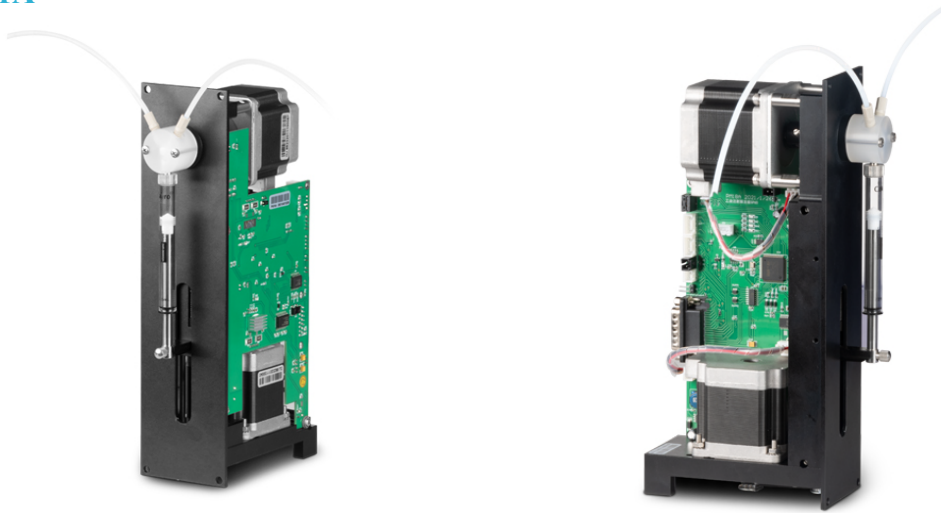


## Industrial Syringe Pump

### SP60-1A



## Introduction

SP60-1A syringe pump is a programmable liquid handling pump module, rated stroke: 60mm. The pump can be controlled by external computer or microcontroller, to realize high precision liquid handling.

## Features

### Application flexibility:

Programmable, controlled by external computer or microcontroller, suitable for a wide range of sizes syringe and valves.

### Reliable performance:

Photoelectric encoder detects out of step; controllable start speed, maximum speed and stop speed;

Programmable acceleration and deceleration slopes;

Can realize planned maintenance and replacement of syringes and valves.

### Simple way to integrate:

Support RS232/RS485/CAN communication;

Up to 15 sets of SP60-1A syringe pumps can be connected together;

Two digital inputs and three outputs for TTL level signals;

Used for synchronization with other external devices.

## Technical Specifications

Accuracy	Error $\leq \pm 0.1\%$ (stroke $\geq 30\%$ maximum stroke)
Plunger drive	Stepper motor drives ball screw, quadrature encoder detects out-of-step and returns to zero
Max. stroke(Steps)	60mm(6000 steps or 48000 steps)
Linear speed range	0.01mm/s-60mm/s
Run time per stroke	1.25s-100min
Speed resolution	0.01mm/s
Stroke resolution	0.01mm or 0.00125mm
Valve switch time	$\leq 250$ ms between adjacent ports
Valves type	3 port valve, 4 port valve, 3 port distribution valve, 9 port distribution valve
Valve material	Valve body: PCTFE
	Valve element: PTFE
Tubing fittings	1/4-28UNF
Syringe fittings	1/4-28UNF
Syringes	50 $\mu$ L, 100 $\mu$ L, 250 $\mu$ L, 500 $\mu$ L, 1.0mL, 2.5mL, 5.0m, 10mL, 25mL
Syringe material	Barrel material: Borosilicate glass
	Plunger rod material: Stainless steel
	Plunger seal material: PTFE
Power supply	DC24V $\pm 10\%$ /1.25A(Peak value)
Communication interface	RS232/RS485/CAN
Baud rate	9600 or 38400(RS232/RS485); 100K, 125K, 250K, 500K, 1M(CAN)
Addressing	UP to 15 individual addresses available(BCD switch)
Input	Two TTL level signal inputs, for restart the paused instruct
Output	Three TTL level signal outputs, for synchronous external devices
Condition temperature	15°C-40°C(Low temperature operation requires a low temperature syringe)
Storage temperature	-20°C -65°C
Max. pressure	0.68Mpa(High pressure above 0.68MPa, please contact us)
Dimension(mm)	143*64.5*253 (mm)
Weight	2.20kg

**Dimension Drawing (Unit:mm)**

