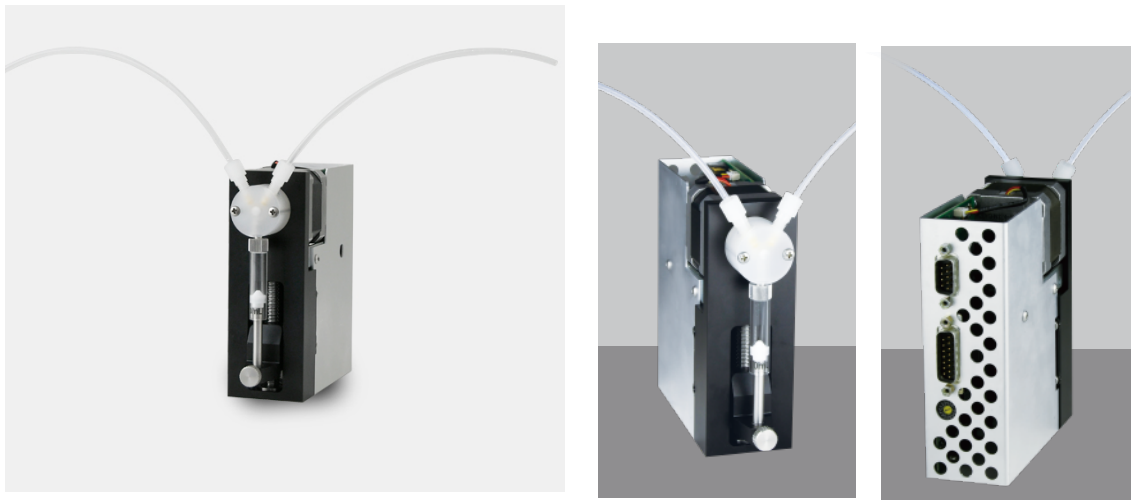# Industrial Syringe Pump
## SP30-1A



## Introduction

SP30-1A is a compact OEM syringe pump, which is programmable and reliable for industrial automation application. It can be controlled through RS232/RS485 communication. It can use different size syringes for high precision fluid transferring, diluting and dispensing. Mainly used in equipment or instrument supporting.

## Features

1.Unmatched application flexibility:Fully programmable;Can be controlled by an external computer or microprocessor;Available with a range of syringe sizes and valve configurations.

Faster product development:Can speed up and simplify validation of your instruments;

2.Robust performance: optical encoder for step loss detection; full control of start speed, top speed and cut-off speeds; Programmable ramp-up and ramp-down rates;

3.Straight forward integration: RS232/RS485 communication interfaces;Up to fifteen SP30-1A pumps can be connected together;Two digital inputs and three outputs for TTL level signals; Used for synchronization with external devices.Planned maintenance replacement of valves and syringes.

## Technical Specifications

| | |
|---|---|
| Accuracy | Error ≤±0.1%(stroke≥30%maximum stroke) |
| Plunger drive | Stepper motor driven lead screw with optical encoder for step loss detection and home flag |
| Max. stroke(Steps) | 30mm(3000 steps or 24000 steps) |
| Linear speed range | 0.005mm/s-30mm/s |
| Run time per stroke | 1.2s-100min |
| Speed resolution | 0.005mm/s |
| Stroke resolution | 0.01mm or 0.00125mm |
| Valve switch time | ≤ 250 ms between adjacent ports |
| Valves type | 3-port 120°(Standard) |
| Valve material | Valve body: PCTFE |
| | Valve element: PTFE |
| Tubing fittings | 1/4"-28 or M6 |
| Syringe fittings | 1/4"-28 |
| Syringes | 50μL,100μL,250μL,500μL,1.0mL,2.5mL,5.0mL |
| Syringe material | Barrel material: Borosilicate glass |
| | Plunger rod material: Stainless steel |
| | Plunger seal material: PTFE |
| Power supply | DC24V±10%/2.0A(Peak value) |
| Communication interface | RS232/RS485/CAN |
| Baud rate | 9600 or 38400 |
| 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℃-40℃ |
| Storage temperature | -20℃ -65℃ |
| Max. pressure | 0.68Mpa |
| Dimension(mm) | 139.2*44.5*127 (mm) |
| Weight | 1.8kg |

## Dimension Drawing (Unit:mm)