

Industrial Syringe Pump

SP1-C1, MSP1-C2, MSP1-D1, MSP1-E1



Mainly used in OEM equipment and instruments, especially for automation systems.
Rotating valve, panel installation, RS485 or RS232 communication control.

Specifications	Model	SP1-C1	MSP1-C2	MSP1-D1	MSP1-E1
Accuracy		≤1%(rated stroke)			
Precision		Repeatability≤0.5%(rated stroke)			
Rated stroke (steps)		60mm(6000 steps)	30mm(3000 steps)	30mm(1000 steps)	
Linear speed		0.05mm/s-50mm/s	0.025mm/s-25mm/s	0.5mm/s-15mm/s	
Time for rated stroke		1.2s-1200s		2s-60s	
Control resolution		0.01mm(1 step)		0.03mm(1 step)	
Transmission mechanism		Ball screw drive		Rack and pinion drive	
Plunger drive force (max.)		≥68N			
Secondary plunger drive force (max.)		≥34N		—	
Syringe		50μL、100μL、250μL、 500μL、1mL、2.5mL、 5mL、10mL、25mL	50μL、100μL、250μL、 500μL、1mL、2.5mL、5mL	500μL、1mL、2.5mL、5mL	
Valve		Standard:3 port 120°; Optional:4 port 90°; T type 90°; 90° distribution valve		3 port 120°	3-way solenoid valve
Valve plug turn time		≤280ms between adjacent ports			≤100ms
Wetted material		Borosilicate glass, PTFE, PCTFE			Borosilicate glass, PTFE, PEEK
Max. pressure		0.68Mpa			0.1Mpa
Tubing fitting		1/4"-28 thread			
Syringe fitting		1/4"-28 thread			
Signal input		2 input signals (TTL signal, drive current > 16mA)		1 input signals (TTL signal, drive current > 16mA)	
Signal output		3 output signals (OC gate signal) to indicate the working status		1 output signals (OC gate signal) to indicate the working status	
Communication interface		RS485 or RS232			
Bit rate		9600bps or 38400bps			
Pump ID setting		Set the pump ID through BCD dial switch (0 to E corresponding to pump address 1-15)			
Pump parameters setting		Set the parameters through DIP switch			
Dimension (L×W×H)		114×65×254(mm)	110×44.4×127(mm)	100×65×127(mm)	
Power supply		DC 24V/1.5A			
Operating temperature		15 to 40℃			
Relative humidity		< 80%			
Weight		2.15kg	1.23kg	0.9kg	