

New SP100VCST Variable-Flow OEM Pumps

These low-cost peristaltic pumps are among the most compact, most powerful variable-flow stepper-driven pumps in the market. Flow rates are available from 0.01 to 28 ml/min. They adapt easily to almost any instrument application. Enjoy the benefits of peristaltic pumps in your fluid transfer application.

Select from three different tubing sizes and a variety of tubing materials. Tygon® A60G tubing offers the longest pump life, Silicone is the softest with higher flow rates. Viton® provides excellent chemical resistance. Modular power supplies and battery packs are available.

The pumpheads have SAN plastic housing, acetal rotor assembly with four stainless steel rollers. These stepper motors are reversible and rated for continuous-duty. Silicone and Tygon® A60G pump systems are supplied with polypropylene fittings. Viton® systems are supplied with PVDF fittings. One year warranty.

**Variable-flow
Reversible
Precise stepper motors**



*Compact, variable-flow
SP100 Vdc Stepper pumps.*

SPECIAL FEATURES

- Fluid only contacts the tubing*
- Rated for continuous-duty*
- Self-priming, run dry without damage*
- Variable-flow 24Vdc motors*
- Consistent metering capability*

APPLICATIONS

- Chemical metering*
- Reagent dispensing*
- Chemical waste removal*
- Analytical instruments*
- Research & Development*

SPECIFICATIONS

	Tygon®, Viton®	Silicone
Max. Fluid Pressure:	30 psig (2 bar)	10 psig (0.7 bar)
Max. Suction Lift:		
0.8 and 1.6 mm ID	16-ft (4.8 m) H ₂ O	16-ft (4.8 m) H ₂ O
3.0 mmID	25-ft (7.5 m) H ₂ O	25-ft (7.5 m) H ₂ O
Flow Range:	See ordering table (page 2)	
Accuracy:	±1% full scale	
Repeatability:	±1% full scale	
Max. Fluid Temp.:	93°C (200°F)	
Duty Cycle:	Continuous;	
Operating Temp.:	0 to 50°C (32 to 122°F)	
Enclosure:	ABS	
Wetted parts:	Various tubing materials	
Power:	24Vdc; 2A	
Dimensions (W x H x D):	84 x 140 x 97 mm; (3.3 x 5.5 x 3.8 in.)	
Shipping Wt:	0.9 kg (2 lbs)	

SP100VCST Max Flowrates (ml/min)

Motor	Tubing ID (mm)				
RPM	Vdc	Amps	3.0	1.6	0.8
150	24	2A	28	7.8	3

Flow rates listed are nominal and will vary depending upon fluid viscosity and back pressure. Specifications listed are for Tygon A60G (formerly Norprene) tubing. Silicone flow rates are approx 10-20% higher. Viton flow rates slightly lower.

SP100VCST-Peri Pumps

SP100VCST Ordering Information – (Flow rates listed are for Tygon® A60G tubing; Silicone is 10-20%)

Flow Rate ml/min	Tubing ID	RPM Range	Pump Part No.		
			V-Flow,I/O	V-Flow,I/O/R	V-Flow,I/O/R,Rem
24Vdc Pumps - Variable-flow; up to 2A current draw; Select Tubing Material below.					
0.1 to 28	3.0 mm (1/8")				
0.05 to 7.8	1.6 mm (1/16")	0.15 to 150	SP10XV1-259ST	SP10XV1R-259ST	SP10XV3R-259ST
0.01 to 3	0.8 mm (1/32")				

V-Flow=Variable-flow; I/O=On/Off Switch; I/O/R=On/Off/Reverse Switch; Rem=Remote Speed (0-5Vdc); Rem Start/Stop; Remote Direction.
Flow rates listed are nominal and will vary depending upon fluid viscosity and back pressure.
Other motor rpms and special tubing options are available on special order. Call for details.

Tubing Set Material Selection

Part No:	Description	Sizes Incl.(mm)	Fitting	Application Recommendations
SP101-980AF	Tygon® A60G	3, 1.6, 0.8 ID	PP	Longest flex life, Black, Good with Acids/Bases
SP101F-980AF	Tygon® A60F	3, 1.6, 0.8 ID	PP	Longest flex life, Beige, Food-Grade
SP104L-980AF	Tygon® LFL	3, 1.6 ID	PP	Long flex life, Clear, USP, FDA
SP100-980AF	Silicone	3, 1.6, 0.8 ID	PP	Good flex life, Translucent, General Purpose
SP100P-980AF	Tygon® 3350 (Sil)	3, 1.6 ID	PP	Good flex life, Translucent, USP, ultra smooth
SP104P-980AF	Tygon® F-4040	3, 1.6 ID	PP	Good flex life, Yellow Transl, Fuel/Lubricant
SP104X-980AF	Tygon® XL-60	3, 1.6 ID	PP	Good flex life Clear, General Purpose
SP101R-980AF	Tygon® Chemical	3, 1.6 ID	PP	Long flex life, Beige, Chem Resistant liner
SP102-980AF	Viton®	3, 1.6, 0.8 ID	PVDF	Good flex life, Black, FDA, Chem Resist-Organics

VAC power supply

Convert these compact drives to VAC models with a compact power supply. 5.5 OD x 2.5mm ID (center +) connector.

Order the optional power supply.

PS100.085 Power supply, 115Vac/24Vdc, 3A; US Std plug.

PS100.085E Power supply, 230Vac/24Vdc, 3A; Europ. plug.

Specifications subject to change.

APT Instruments provides no warranty on usage of pumps or life of tube. Immersion and life tests are recommended prior to use.

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Tygon—Reg TM Saint Gobain Performance Plastics Corp.
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For more information contact:

APT Instruments Div

Omaha, NE 68144 USA

877.324.5444 Toll-free

217.498.0342 * 217.498.0352Fx

www.aptinstruments.com

sales@aptinstruments.com