

New SP100VC Variable-Flow Pumps

These low-cost peristaltic pumps are among the most compact, most powerful variable-flow pumps in the market. Flow rates are available from 0 to 7.7 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 motor speeds, three different tubing sizes and a variety of tubing materials. Tygon® A60F 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 brush Vdc motors are reversible. Silicone and Tygon® A60F pump systems are supplied with polypropylene fittings. Viton® systems are supplied with PVDF fittings. One year warranty.
Installation Note: These brush-type Vdc motors are rated for intermittent duty. Request information on our heavy-duty and brushless DC motors for continuous-duty applications.

**Variable-flow
Reversible
Remote Control**



Compact, variable-flow SP100VC pumps with optional remote control.

SPECIAL FEATURES

- Fluid only contacts the tubing*
- Self-priming, run dry without damage*
- Variable-flow 12Vdc motors*
- Consistent metering capability*
- Compact size*

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 and 5.0 mm ID	25-ft (7.5 m) H ₂ O	20-ft (6 m) H ₂ O
Flow Range:	See ordering table (page 2)	
Accuracy:	±5% full scale	
Repeatability:	±5% full scale	
Max. Fluid Temp.:	93°C (200°F)	
Duty Cycle:	Intermittent	
Operating Temp.:	0 to 50°C (32 to 122°F)	
Enclosure:	ABS plastic	
Wetted parts:	Various tubing materials.	
Power:	12Vdc; 150 to 500 mA, 115V (24Vdc models available)	
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)	

APPLICATIONS

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

SP100VC Max Flowrates (ml/min)

Motor	Tubing ID (mm)					
	RPM	Vdc	Amps	3.0	1.6	0.8
35	12	200 mA	7.7	2.1	0.7	
20	12	200 mA	4	1.1	0.38	
5	12	150 mA	1	0.28	0.09	

Flow rates listed are nominal and will vary depending upon fluid viscosity and back pressure. Specifications listed are for Tygon A60F (formerly Norprene Food) tubing. Silicone flow rates are approx 10-20% higher. Viton flow rates slightly lower. Other RPMs and 24 Vdc systems are available. Inquire.

SP100VC-Peri Pumps

SP100VC Ordering Information – (Flow rates listed are for Tygon® A60F tubing; Silicone is 10-20% higher).

Flow Rate ml/min	Tubing ID	RPM Range	V-Flow,I/O	Pump Part No.	
				V-Flow,I/O/R	V-Flow,I/O/R,Rem
12Vdc Pumps - Variable-flow; up to 500 mA current draw; Select Tubing Material below.					
0 to 7.7	3.0 mm (1/8")				
0 to 2.1	1.6 mm (1/16")	0 to 35	SP10XV1-003	SP10XV1R-003	SP10XV3R-003
0 to 0.7	0.8 mm (1/32")				
0 to 4	3.0 mm (1/8")				
0 to 1.1	1.6 mm (1/16")	0 to 20	SP10XV1-021	SP10XV1R-021	SP10XV3R-021
0 to 0.38	0.8 mm (1/32")				
0 to 1	3.0 mm (1/8")				
0 to 0.28	1.6 mm (1/16")	0 to 5	SP10XV1-018	SP10XV1R-018	SP10XV3R-018
0 to 0.09	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 RPMs and 24 Vdc systems are available. Special tubing options are available on special order. Call for details.

Tubing Set Material Selection

Part No:	Description	Sizes Incl.(mm)	Fitting	Application Recommendations
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.

PS100.010 Power supply, 115Vac/12Vdc, 1A; US Std plug.

PS100.011E Power supply, 230Vac/12Vdc, 1A; 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.

SmallPumps—TM Advanced Product Technology, LLC Viton—Reg TM DuPont Dow Elastomers LLC Tygon—Reg TM Saint Gobain Performance Plastics Co.

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