

New SmallPumps™ SP300VC Peristaltic Pumps

These new compact peristaltic pumps provide variable flow and exceptional pump performance in a small attractive package. Flow rates are available up to 1000 ml/min. Select the model with the type of control that you require—manual or remote control. Integrate these pumps into your system for on/off or proportional flow. Priming and reversing options simplify pump installation and operation.

Select from two different motor speeds and a variety of tubing materials. Two sizes of tubing are supplied with each pump for best flow selection. Tygon® A60G tubing offers the longest pump life, Silicone is the softest with higher flow rates. Viton® provides excellent chemical resistance.

These quick-change pumps have clear plastic housings, steel rotor assembly with two sealed needle-bearing rollers. The rugged PVC plastic housing provides protection for the motor and PCB controls. Most of the pumps are reversible. Remote control connections through DB9F connector. Silicone and Tygon® A60G pump systems are supplied with higher flow rates. Viton® systems are supplied with PVDF fittings. One year warranty.

Installation Note: These pumps are rated for continuous-duty. For long-term applications - Request information on our brushless dc motors

Quick-change pump head
Variable-flow
Reversible
Remote Control



Compact, variable-flow SP300VC pumps with optional

SPECIAL FEATURES

Fluid only contacts the tubing
Self-priming, run dry without damage
Variable-flow 12Vdc motors; 24Vdc opt.
Pump viscous fluids and slurries
Compact size

SPECIFICATIONS

	Tygon®, Viton®	Silicone
Max. Fluid Pressure:		
5.0 mm ID	30 psig (2 bar)	10 psig (0.7 bar)
6.4 mm ID	15 psig (1.4 bar)	8 psig (0.5 bar)
Max. Suction Lift:		
5.0 mm ID	25-ft (7.5 m) H ₂ O	25-ft (7.5 m) H ₂ O
6.4 mm ID	20-ft (6 m) H ₂ O	15-ft (4.5 m) H ₂ O
Flow Range:	See ordering table (page 2)	
Accuracy/Repeatability:	±5% full scale	
Remote Control:	option, varies by model see table	
Max. Fluid Temp.:	93°C (200°F)	
Duty Cycle:	Continuous	
Operating Temp.:	0 to 50°C (32 to 122°F)	
Enclosure:	PVC	
Wetted parts:	Various tubing materials	
Power:	12Vdc; 0.6 to 1.4 A (24Vdc avail).	
Dimensions(W x H x D):	100 x 100 x 137 mm (4 x 4 x 5.4 in.)	
Weight (pump):	approx 1.15 kg (40 oz)	
Shipping Wt:	approx 1.4 kg (3 lbs)	

APPLICATIONS

Chemical metering
Reagent dispensing
Sample waste removal
Analytical instruments
Research & Development

SP300VC Max Flowrates (ml/min)

Motor	Tubing ID (mm)			
	RPM	Vdc	Amps	6.4
300	12	1.4 A	1000	600
125	12	1 A	415	250

Flow rate 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 slightly higher. Viton flow rates slightly lower. 24Vdc models available.

SP300VC-Tubing Pumps

SP300VC Ordering Information – (Flow rates listed are for Tygon® A60G tubing; Silicone is 10-20% higher).

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
12Vdc Pumps - Variable-flow; up to 500 mA current draw; Select Tubing Material below.					
0 to 1000	6.4 mm (1/4")	0 to 300	SP30XV1-015	SP30XV1R-015	SP30XV3R-015
0 to 600	5 mm (3/16")				
0 to 415	6.4 mm (1/4")	0 to 125	SP30XV1-007	SP30XV1R-007	SP30XV3R-007
0 to 250	5 mm (3/16")				

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.

24 Vdc systems are available. Other special tubing options are available on special order. Call for details.

Tubing Set Material Selection

Part No:	Description	Sizes Incl.(mm)	Fitting	Application Recommendations
SP301-980AF	Tygon® A60G	6.4, 5 ID	ABS	Longest flex life, Black, Good-Acids/Bases
SP301F-980AF	Tygon® A60F	6.4, 5 ID	ABS	Longest flex life, Beige, Food-Grade
SP304L-980AF	Tygon® LFL	6.4, 5 ID	ABS	Long flex life, Clear, USP, FDA
SP300-980AF	Silicone	6.4, 5 ID	ABS	Good flex life, Translucent, General Purpose
SP300P-980AF	Tygon® 3350 (Sil)	6.4, 5 ID	PP	Good flex life, Translucent, USP, Ultra smooth
SP304P-980AF	Tygon® F-4040	6.4, 5 ID	PP	Good flex life, Yellow Transl, Fuel/Lubricant
SP304X-980AF	Tygon® XL-60	6.4, 5 ID	PP	Good flex life Clear, General Purpose
SP301R-980AF	Tygon® Chemical	6.4, 5 ID	PP	Long flex life, Beige, Chem Resistant liner
SP302-980AF	Viton®	6.4, 5 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 Power Supply you require.

PS100.015 Power supply, 115Vac/12Vdc; US Std plug.

PS100.015E Power supply, 230Vac/12Vdc; Europ. plug (Other plugs available).



Optional 10-turn potentiometer for finer flow control.

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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