

## SmallPumps™ SP300VO Variable-Flow OEM Pumps

The SmallPumps SP300 pumps are rugged little pumps designed for more robust applications requiring more flow rate than our SP100 and SP200 series. Flow rates are available from 0 to 1000 ml/min. Adapt them to almost any fluid transfer application. Enjoy the benefits of peristaltic pumps in your fluid transfer application.

Select from 3 different motor speeds 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.

All quick change pumps have clear plastic housings, steel rotor assembly with two ball-bearing rollers. The Vdc motors are reversible permanent magnet brush style. Standard pumps are supplied with ABS fittings (PP optional). Viton systems with PVDF fittings. Optional PVC housing and switch. They are rated for continuous-duty. Shipping Wt. 2.0 lb. (0.9 kg). 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**



Compact, variable-flow  
SP300VO pumps.

Inquire for details on  
manual or remote control  
PCB systems.

### SPECIAL FEATURES

*Fluid only contacts the tubing*  
*Self-priming, run dry without damage*  
*Pump Viscous fluids and slurries*  
*Compact Size - (W x H x D approx)*  
*72 x 90 x 131 mm (Vdc)*

### SPECIFICATIONS

	Tygon A60G, Viton	Silicone
<b>Max. Fluid Pressure:</b>		
3 & 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)
<b>Max. Suction Lift:</b>		
3 & 5.0 mm ID	25-ft (7.5 m) H <sub>2</sub> O	25-ft (7.5 m) H <sub>2</sub> O
6.4 mm ID	20-ft (6 m) H <sub>2</sub> O	15-ft (4.5 m) H <sub>2</sub> O
<b>Measurement Range:</b>	See ordering table (page 2)	
<b>Accuracy:</b>	±10% full scale	
<b>Repeatability:</b>	±10% full scale	
<b>Max. Fluid Temp.:</b>	93°C (200°F)	
<b>Duty Cycle:</b>	Continuous	
<b>Operating Temp.:</b>	0 to 50°C (32 to 122°F)	
<b>Enclosure:</b>	open motor systems; PVC optional	
<b>Wetted parts:</b>	Silicone, Norprene® or Viton®	
<b>Power:</b>	12 or 24Vdc; 0.6 to 1.2 A	
<b>Dimensions (W x H x D):</b>	72 x 90 x 131 mm (2.8 x 3.5 x 5.2 in.)	
(with housing)	100 x 100 x 13.7 mm (4 x 4 x 5.4 in)	
<b>Weight:</b>	approx 1 kg (2 lbs).	
<b>Shipping Wt:</b>	1 kg (2.2 lb); 1.2 kg (3 lbs)	

### APPLICATIONS

*Chemical metering*  
*Detergent dispensing*  
*Condensate removal*  
*Analytical instruments*  
*Research & Development*

### SP300VO Max Flowrates (ml/min)

Motor RPM	Vdc	W(VxA)	Tubing ID (mm)		
			6.4	5	3
300	12 or 24	15	1000	600	300
125	12 or 24	12	415	250	125
50	12 or 24	6	165	100	50

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.

# SP300VO-Peri Pumps

NA - Not Available at this time  
NR - Not Recommended

## SP300VO Ordering Information – (Flow rates listed are for Tygon A60G tubing; Silicone is slightly higher).

Flow Rate ml/min	Tubing ID	RPM Range	Model No.	Pump Part No.		
				Tygon® A60G	Silicone	Viton®
<b>12Vdc Pumps - Variable-flow; reversible</b>						
0 to 1000	6.4 mm (1/4")	0 to 300	SP30XX.064.AVXX.XX	SP301-015	SP300-015	SP302-015
0 to 600	5 mm (3/16")	0 to 300	SP30XX.050.AVXX.XX	SP301-016	SP300-016	SP302-016
0 to 415	6.4 mm (1/4")	0 to 125	SP30XX.064.BVXX.XX	SP301-007	SP300-007	SP302-007
0 to 250	5 mm (3/16")	0 to 125	SP30XX.050.BVXX.XX	SP301-008	SP300-008	SP302-008
0 to 165	6.4 mm (1/4")	0 to 50	SP30XX.064.DVXX.XX	SP301-009	SP300-009	SP302-009
0 to 100	5 mm (3/16")	0 to 50	SP30XX.050.DVXX.XX	SP301-002	SP300-002	SP302-002
<b>24Vdc Pumps - Variable-flow; reversible</b>						
0 to 1000	6.4 mm (1/4")	0 to 300	SP30XX.064.EVXX.XX	SP301-065	SP300-065	SP302-065
0 to 600	5 mm (3/16")	0 to 300	SP30XX.050.EVXX.XX	SP301-066	SP300-066	SP302-066
0 to 415	6.4 mm (1/4")	0 to 125	SP30XX.064.FVXX.XX	SP301-057	SP300-057	SP302-057
0 to 250	5 mm (3/16")	0 to 125	SP30XX.050.FVXX.XX	SP301-058	SP300-058	SP302-058
0 to 165	6.4 mm (1/4")	0 to 50	SP30XX.064.GVXX.XX	SP301-059	SP300-059	SP302-059
0 to 100	5 mm (3/16")	0 to 50	SP30XX.050.GVXX.XX	SP301-052	SP300-052	SP302-052

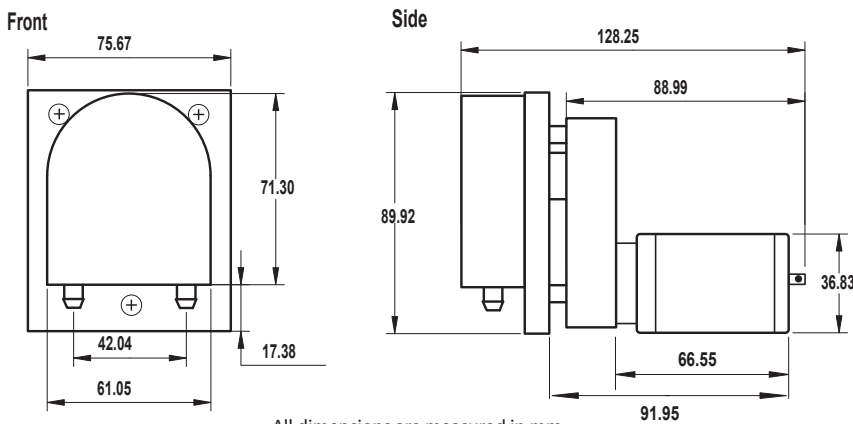
Flow rate listed are nominal and will vary depending upon fluid viscosity and back pressure. Other special tubing options are available on special order. Call for details.

### Customize your OEM pumps!

Order your OEM pump with an optional protective PVC plastic housing and power switch. All cased and switched models include a 5.5 x 2.5 mm jack for quick power connect. Add the following letter(s) to the p/n to include the options.

"C" PVC plastic housing (e.g. SP301C-002).

"CS" PVC plastic housing w/ on-off switch (e.g. SP301CS-002).



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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SP300VOPS-J17-p2