

New SP300 Brushless DC Variable-Flow OEM Pumps

The SmallPumps SP300 pumps are rugged little pumps designed for more robust applications requiring a little bit more flow rate than our SP100 and SP200 series. Flow rates are available from 0 to 1000 ml/min. Brushless DC pumps are designed for continuous-duty operation. Motors have tachometer output.

Inquire for details on pcb options. Adapt them to almost any fluid transfer application.

Select from two different motor voltages 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 brushless DC style. Optional PVC housing and switch. They are rated for continuous-duty. Shipping Wt. 3.0 lb. (1.4 kg). One year warranty.

Quick change pump head
Variable-flow
Reversible



Compact, variable-flow SP300VOBLA pumps.

SPECIAL FEATURES

Fluid only contacts the tubing
Self-priming, run dry without damage
Pump viscous fluids and slurries
Continuous-duty brushless DC motors
Compact design

SPECIFICATIONS

	Tygon A60G, Viton	Silicone
Max. Fluid Pressure:		
3.0 & 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:		
3.0 & 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:	±2% full scale	
Repeatability:	±2% full scale	
Max. Fluid Temp.:	93°C (200°F)	
Duty Cycle (motor life):	Continuous, 20,000 hours	
Operating Temp.:	0 to 50°C (32 to 122°F)	
Enclosure:	open motor systems; ABS optional	
Wetted parts:	Silicone, Tygon® A60G or Viton®	
Power:	12 or 24Vdc; up to 1.6 A	
Dimensions (W x H x D):	100 x 100 x 131 mm (4 x 3.75 x 4.25 in.)	
Shipping Wt:	1.4 kg (3 lb)	

APPLICATIONS

Chemical metering
Detergent dispensing
Condensate removal
Analytical instruments
Research & Development

SP300VOBLA Max Flowrates (ml/min)

Motor RPM	Vdc	Amps	Tubing ID (mm)		
			6.4	5.0	3.0
300	12	1.6 A	1000	600	300
300	24	0.8 A	1000	600	300
40	24	0.8 A	130	80	40

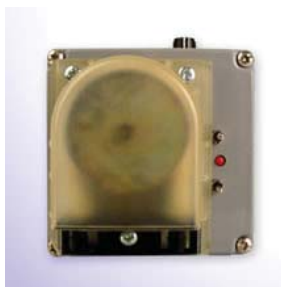
Flow rate listed are nominal and will vary depending upon fluid viscosity and back pressure. Specifications listed are for Tygon A60G (formerly Norprene) tubing. Silicone flow rates are slightly higher. Viton flow rates slightly lower.

SP300VOBLA-Peri Pumps

SP300VOBLA Ordering Information – (Flow rates listed are for Tygon® A60G tubing; Silicone is slightly higher).

<u>Flow Rate</u> ml/min	<u>Tubing</u> ID	<u>RPM Range</u>	<u>Tygon® A60G</u>	<u>Pump Part No.</u> <u>Silicone</u>	<u>Viton®</u>
12Vdc Pumps - Variable-flow; reversible; up to 1.6 A current draw					
0 to 300	3.0 mm (1/8")	0 to 300	SP301-202A	SP300-202A	SP302-202A
0 to 600	5.0 mm (3/16")	0 to 300	SP301-203A	SP300-203A	SP302-203A
0 to 1000	6.4 mm (1/4")	0 to 300	SP301-204A	SP300-204A	SP302-204A
24Vdc Pumps - Variable-flow; reversible; up to 0.8 A current draw					
0 to 40	3.0 mm (1/8")	0 to 40	SP301-256A	SP300-256A	SP302-256A
0 to 80	5.0 mm (3/16")	0 to 40	SP301-257A	SP300-257A	SP302-257A
0 to 130	6.4 mm (1/4")	0 to 40	SP301-258A	SP300-258A	SP302-258A
0 to 300	3.0 mm (1/8")	0 to 300	SP301-252A	SP300-252A	SP302-252A
0 to 600	5.0 mm (3/16")	0 to 300	SP301-253A	SP300-253A	SP302-253A
0 to 1000	6.4 mm (1/4")	0 to 300	SP301-254A	SP300-254A	SP302-254A

Flow rates 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. Control boards are mounted outside of housing. For completely cased pumps, ask about our SP300VCBLA models. Add the following letter(s) to the p/n to include the options.
"C" ABS plastic housing (e.g. SP301C-203A).

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
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