

### A-100NV

**Variable Speed**

**Digital Control**

**4-20mA, 0-10VDC  
& Pulse Inputs**



### Features:

- Peristaltic pump design does not have valves that can clog requiring maintenance.
- Self priming - even against maximum line pressure. By-pass valves are not required. Cannot vapor lock or lose prime.
- Outputs to 250 ml/min (95.1 GPD).
- Output pressures to 100 PSI.
- Output volume is not effected by changes in back pressure.
- Patented pump tube design installs easily and stays centered on the rollers without manual adjustment.
- Two pump tubes supplied with each pump. No extra tubing required.
- Accepts 4-20mA, 0-10Vdc, and Pulse inputs for manual or external speed control.
- Operator friendly digital touch pad.
  - Easy to read LCD display
  - Service and Alarm indicator icons.
  - Display motor speed or input signal values.
  - Prime mode for easy priming without changing programming.
- Built-in Tube Failure Detection system (TFD). Senses chemical in the pump head, shuts off the pump and activates a 1 amp alarm relay (dry contact closure).
- Compatible with Blue-White's output flow verification sensor system.
- Durable housing of chemical resistant Valox (PBT) thermoplastic.

### Specifications:

Max. working pressure: .....100 psig (6.9 bar)

Max. fluid temperature: .....130° F (54° C)

Max. ambient temperature: ..14° to 110° F/ -10° to 43° C

Output adjustment range: ....5-100% in 1% increments

Duty cycle:.....Continuous

Maximum viscosity: .....5,000 Centipoise

Maximum suction lift: .....30 ft. Water 0 psig

Maximum Solids: .....50% by volume

Enclosure: .....NEMA type 2, (IP21)

Voltage (amp draw): .....115VAC/60Hz, 1ph (.350 amp max)  
 230VAC/60Hz, 1ph (.173 amp max)  
 220VAC/50Hz, 1ph (.175 amp max)  
 240VAC/50Hz, 1ph (.193 amp max)

Power Cord Plug Type:.....115V60Hz = NEMA 5/15 (USA)  
 230V60Hz = NEMA 6/15 (USA)  
 220V50Hz = CEE 7/VII (EUROPE)  
 240V50Hz = CEE 7/VII (U.K)

Approximate shipping wt: ...12 lb. (5.4 kg)

### Materials of Construction:

#### Wetted components:

Pump Tube Assembly:.....Norprene<sup>®</sup>, Tygothane<sup>®</sup> or Viton<sup>®</sup> tubing  
 PVDF tube assembly connection fittings

Suction Tubing:.....Clear PVC

Suction Strainer: .....Natural Polypropylene

Discharge Tubing:.....Natural Polyethylene (LLDPE)

Injection/Check valve:

Body & insert: .....Polypropylene (optional PVDF)

Check Ball: .....Ceramic

Spring: .....Hastelloy C-276

Ball Seat O-ring:.....TFE/P (optional EP)

Static Seal O-ring: .....Viton<sup>®</sup> (optional EP)

#### Non-Wetted components:

Pump Head & Enclosure: .....Valox<sup>®</sup> (PBT) thermoplastic

Pump Head Cover:.....Clear PVC

Cover Screws: .....300 Stainless, Polypropylene cap

Roller Assembly:

Rotor:.....Valox<sup>®</sup> (PBT)

Rollers: .....Nylon

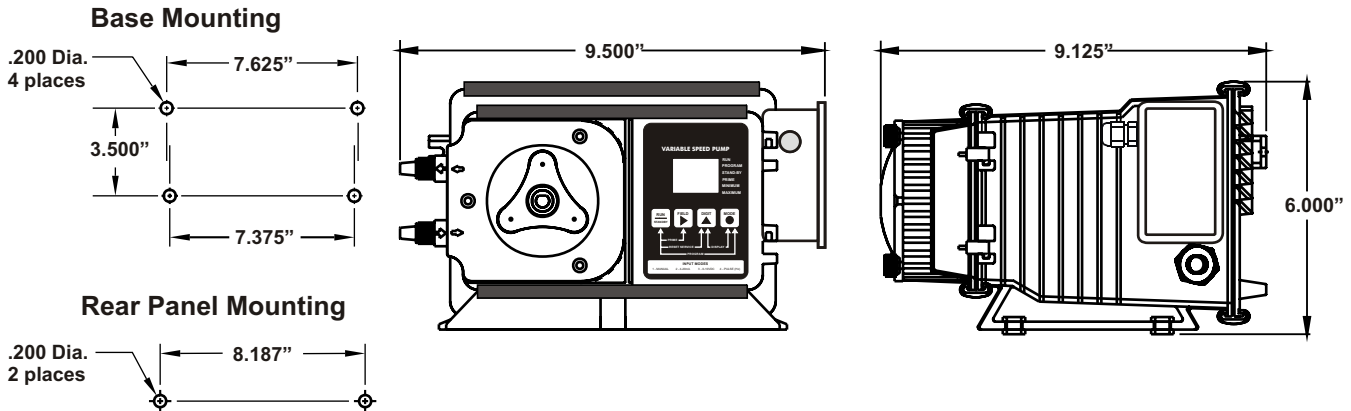
Roller Bearings: .....Bronze

Motor Shaft:.....Nickel plated steel

TFD System Sensor pins: ....Hastelloy C-276

Power Cord: .....3 conductor, SJTW-A Water-resistant

### Dimensions:



### Model Number Matrix:

MODEL A1N [ ] [ ] V - [ ] [ ] - [ ]

Maximum Motor RPM
0 = 14 RPM
1 = 30 RPM
2 = 45 RPM
3 = 60 RPM

Power Supply
0 = 115V60Hz
1 = 220V50Hz
2 = 230V60Hz
8 = 240V50Hz

Output Control
V = Digital speed control with external input
F = Analog speed control
E = Digital batch timer with external input
A = Analog timer, 60 sec. Cycle - 100% duty
C = Analog timer, 5 sec. Cycle - 100% duty
S = Analog timer, 60 sec. Cycle - 10% duty
Z = Proportional feed system - JBox/Cord
X = No output control - fixed feed rate

Miscellaneous Options (not required)
1 = T140-6V injector replaces A-014HD-6A
2 = C-340V footvalve replaces C-342-6 strainer
5 = A-014HDK-6A injector PVDF
T7 = 7 gallon chemical tank system
T15 = 15 gallon chemical tank system
T30 = 30 gallon chemical tank system

Tubing Connection Type
T = Compression tube nuts
Q = Push-on quick connect

Pump Tube Size and Material
1 = 1/4" OD Tygothane
2 = 3/8" OD Tygothane
3 = 7/16" OD Tygothane
4 = 1/4" OD Norprene
5 = 5/16" OD Viton
6 = 3/8" OD Norprene
7 = 7/16" OD Norprene

### Maximum Flow rate and pressure capacities:

Tube no.	Tubing Material	14 RPM MODELS				30 RPM MODELS				45 RPM MODELS				60 RPM MODELS							
		ml/min	oz/min	gph	gpd	PSI	ml/min	oz/min	gph	gpd	PSI	ml/min	oz/min	gph	gpd	PSI	ml/min	oz/min	gph	gpd	PSI
1	Tygothane	15	0.51	0.24	5.7	65	35	1.18	0.55	13.3	65	54	1.83	0.86	20.5	65	67	2.26	1.06	25.5	65
2	Tygothane	32	1.08	0.51	12.2	65	75	2.54	1.19	28.5	65	115	3.89	1.82	43.7	65	140	4.73	2.22	53.2	65
3	Tygothane	73	2.47	1.16	27.8	50	173	5.85	2.74	65.8	50	261	8.82	4.14	99.2	50	326	11.01	5.17	124.0	50
4	Norprene	6	0.20	0.10	2.3	100	13	0.44	0.21	4.9	100	21	0.20	0.10	8.0	100	25	0.85	0.40	9.5	75
5	Viton	11	0.37	0.17	4.2	25	26	0.88	0.41	9.9	25	39	1.31	0.62	14.8	25	48	1.62	0.76	18.3	25
6	Norprene	18	0.61	0.29	6.8	100	42	1.42	0.67	16.0	100	63	2.13	1.00	24.0	100	79	2.67	1.25	30.0	75
7	Norprene	57	1.92	0.90	21.7	50	138	4.66	2.19	52.5	50	200	6.76	3.17	76.1	50	250	8.45	3.96	95.1	50

### Replacement Pump Tubes:

Pump Model Number Suffix	Pump Tube Part Number	Pump Tube Material	Nominal Pump Tube OD
-1T	A-002N-1T	Tygothane	1/4"
-2T	A-002N-2T	Tygothane	3/8"
-3T	A-002N-3T	Tygothane	7/16"
-4T	A-002N-4T	Norprene	1/4"
-5T	A-002N-5T	Viton	5/16"
-6T	A-002N-6T	Norprene	3/8"
-7T	A-002N-7T	Norprene	7/16"
-1Q	A-002N-1Q	Tygothane	1/4"
-2Q	A-002N-2Q	Tygothane	3/8"
-4Q	A-002N-4Q	Norprene	1/4"
-6Q	A-002N-6Q	Norprene	3/8"