

# 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 5.17 GPH (19.56 LPH).
- Output pressures to 100 PSI (6.9 bar).
- 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:  
14 & 30 RPM with -1T, -2T, -4T tubes: 5-100% (20:1 turndown)  
All other models: .....10-100% (10:1 turndown)  
Duty cycle: .....Continuous  
Maximum viscosity: .....5,000 Centipoise  
Maximum suction lift: .....30 ft. Water 0 psig  
Maximum Solids: .....50% by volume  
Enclosure: .....NEMA 3R, (IP23)

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/VI (EUROPE)  
240V50Hz = CEE 7/VI (EUROPE)  
Approximate shipping wt: ...12 lb. (5.4 kg)

## Materials of Construction:

### Wetted components:

Pump Tube Assembly: .....Norprene<sup>®</sup>, Norprene Chemical<sup>®</sup>, Tygothane<sup>®</sup> or FKM tubing with PVDF 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: .....FKM (optional EP)

### Non-Wetted components:

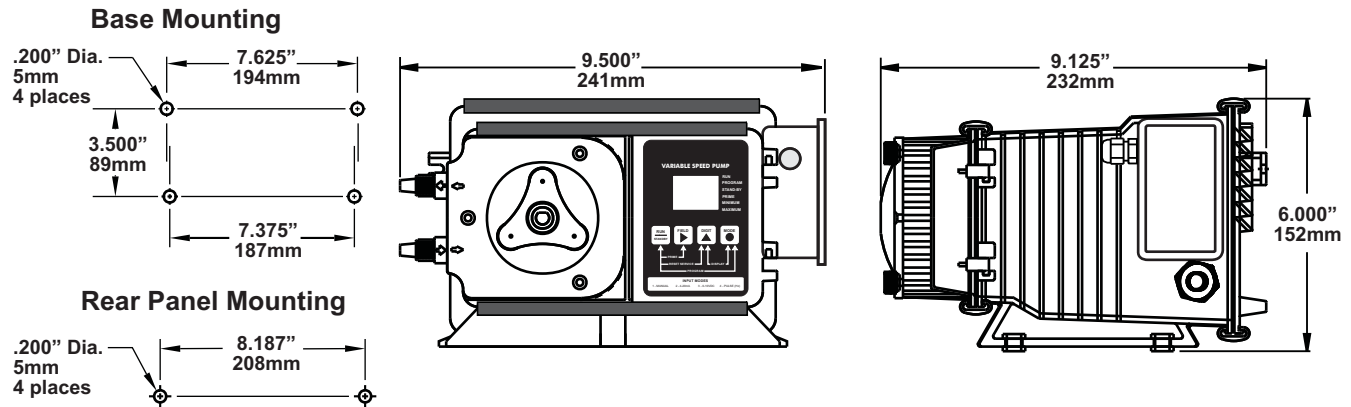
Pump Head & Enclosure: .....Valox<sup>®</sup> (PBT) thermoplastic  
Pump Head Cover: .....Clear Acrylic  
Cover Screws: .....300 Stainless, Polypropylene cap  
Roller Assembly:  
Rotor: .....Valox<sup>®</sup> (PBT)  
Rollers: .....Nylon  
Roller Bearings: .....Bronze  
Motor Shaft: .....Nickel plated steel  
TFD System Sensor pins: .....Hastelloy C-276  
Power Cord: .....3 conductor, SJTW-A Water-resistant

# Blue-White®

FLEXFLO® Peristaltic Metering Pumps

Industries, Ltd.

## 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
- X = No output control - fixed feed rate

### Miscellaneous Options (not required)

- 1 = T140-6V injector replaces A-014N-6A
- 2 = C-340V footvalve replaces C-342-6 strainer
- 5 = A-014NK-6A injector PVDF
- 6 = Jumper set for digital square wave input
- T7 = 7 gallon chemical tank system
- T15 = 15 gallon chemical tank system
- T30 = 30 gallon chemical tank system
- X = NSF61 certified (ships without accessories)

### Tubing Connection Type

- T = Compression tube nuts

### 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 FKM
- 6 = 3/8" OD Norprene
- 7 = 7/16" OD Norprene
- 8 = 7/16" OD Norprene Chemical

## Maximum Flow rate and pressure capacities:

Tube no.	Tubing Material	14 RPM MODELS				30 RPM MODELS				45 RPM MODELS				60 RPM MODELS			
		ml/m	oz/m	lph	gph PSI(bar)	ml/m	oz/m	lph	gph PSI(bar)	ml/m	oz/m	lph	gph PSI(bar)	ml/m	oz/m	lph	gph PSI(bar)
1	Tygothane	15	0.51	0.90	0.24 65(4.5)	35	1.18	2.10	0.55 65(4.5)	54	1.83	3.24	0.86 65(4.5)	67	2.26	4.02	1.06 65(4.5)
2	Tygothane	32	1.08	1.92	0.51 65(4.5)	75	2.54	4.50	1.19 65(4.5)	115	3.89	6.90	1.82 65(4.5)	140	4.73	8.40	2.22 65(4.5)
3	Tygothane	73	2.47	4.37	1.16 50(3.5)	173	5.85	10.38	2.74 50(3.5)	261	8.82	15.66	4.14 50(3.5)	326	11.01	19.56	5.17 50(3.5)
4	Norprene	6	0.20	0.36	0.10 100(6.9)	13	0.44	0.78	0.21 100(6.9)	21	0.71	1.26	0.33 100(6.9)	25	0.85	1.50	0.40 75(5.2)
5	FKM	11	0.37	0.66	0.17 25(1.7)	26	0.88	1.56	0.41 25(1.7)	39	1.31	2.34	0.62 25(1.7)	48	1.62	2.88	0.76 25(1.7)
6	Norprene	18	0.61	1.08	0.29 100(6.9)	42	1.42	2.52	0.67 100(6.9)	63	2.13	3.78	1.00 100(6.9)	79	2.67	4.74	1.25 75(5.2)
7	Norprene	57	1.92	3.42	0.90 50(3.5)	138	4.66	8.28	2.19 50(3.5)	200	6.76	12.00	3.17 50(3.5)	250	8.45	15.00	3.96 50(3.5)
8	Nor Chem	40	1.35	2.40	0.63 50(3.5)	84	2.80	5.04	1.31 50(3.5)	140	4.73	8.40	2.22 50(3.5)	180	6.10	10.80	2.85 50(3.5)

Gallons shown are U.S. Gallons

## Replacement Pump Tubes:

Pump Model Number	Suffix	Pump Tube Part Number	Pump Tube Material	Nominal Pump Tube OD
-1T		A1-1T	Tygothane	1/4" (6,4mm)
-2T		A1-2T	Tygothane	3/8" (9,5mm)
-3T		A1-3T	Tygothane	7/16" (11,1mm)
-4T		A1-4T	Norprene	1/4" (6,4mm)
-5T		A1-5T	FKM	5/16" (7,9mm)
-6T		A1-6T	Norprene	3/8" (9,5mm)
-7T		A1-7T	Norprene	7/16" (11,1mm)
-8T		A1-8T	Norprene Chemical	7/16" (11,1mm)

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