

# **FLEXFLO® Peristaltic Metering Pumps**

## Engineering and Technical Data

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# A-100NVP

### **Variable Speed**

## Digital Control

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

### Enhanced Tube Failure Detection

## **Oil and Water Based Polymers**



### 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 65 PSI (4.5 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 Plus 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:** .....65 psig (4.5 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 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/VII (EUROPE)  
 .....240V50Hz = CEE 7/VII (EUROPE)

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

### **Materials of Construction:**

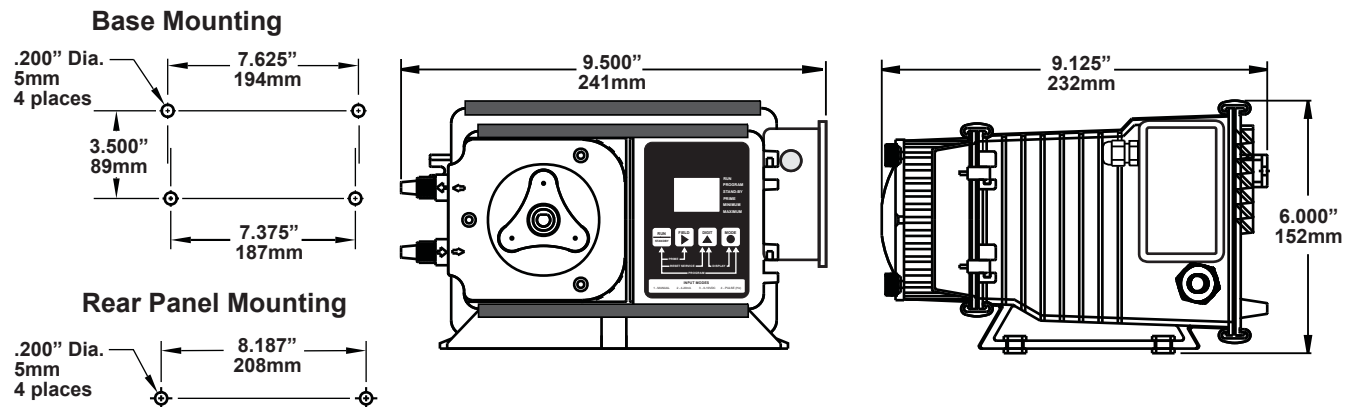
**Wetted components:**

**Pump Tube Assembly:**..... Tygothane®  
**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® (PBT) thermoplastic  
**Pump Head Cover:** .....Clear Acrylic  
**Cover Screws:** .....300 Stainless, Polypropylene cap  
**Roller Assembly:**  
    **Rotor:** .....Valox® (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 <input type="text"/> <input type="text"/> V - <input type="text"/> <input type="text"/> - P			
<b>Maximum Motor RPM</b> 0 = 14 RPM 1 = 30 RPM 2 = 45 RPM 3 = 60 RPM		<b>Miscellaneous Options (not required)</b> 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 P = Polymer Pump equipped with TFD+	
<b>Power Supply</b> 0 = 115V60Hz 1 = 220V50Hz 2 = 230V60Hz 8 = 240V50Hz		<b>Tubing Connection Type</b> T = Compression tube nuts	
<b>Output Control</b> V = Digital speed control with external input F = Analog speed control		<b>Pump Tube Size and Material</b> 1 = 1/4" OD Tygothane 2 = 3/8" OD Tygothane 3 = 7/16" OD Tygothane	

### Maximum Flow rate and pressure capacities:

Model Number	Feed Rate	RPM	Max PSI (BAR)	Pump Tube Part Number	Pump Tube Material	Nominal Pump Tube OD
A1N0*V-1T-P	0.8 - 15 ML/min	14	65 (4.5)	A1-1T	Tygothane	1/4" (6,4mm)
A1N1*V-1T-P	1.8 - 35 ML/min	30	65 (4.5)	A1-1T	Tygothane	1/4" (6,4mm)
A1N3*V-1T-P	6.7 - 67 ML/min	60	65 (4.5)	A1-1T	Tygothane	1/4" (6,4mm)
A1N3*V-2T-P	14.0 - 140 ML/min	60	65 (4.5)	A1-2T	Tygothane	3/8" (9,5mm)
A1N2*V-3T-P	26.1 - 261 ML/min	45	50 (3.5)	A1-3T	Tygothane	7/16" (11,1mm)
A1N3*V-3T-P	32.6 - 326 ML/min	60	50 (3.5)	A1-3T	Tygothane	7/16" (11,1mm)