

# A1

## FLEXFLO® Peristaltic Metering Pump



### Features

- > Tube Failure Detection (TFD+) senses tube rupture
- > Heavy duty display shield protects pump controls
- > Relay outputs include a single 250V/3A and a single solid state
- > Remote Start/Stop
- > SCADA 4-20mA Input

Video link: 



### Highlights

**Flow range**

0.003 – 5.60 GPH  
0.011 – 21.2 LPH

**Pressures**

100 PSI  
(6.89 bar)

**Turndown ratio**

2,000 : 1

**Exclusive**

Tube Failure Detection (TFD+) System

**Motor**

Brushless  
DC

**Warranty**

2 Years

### Control Methods

| Control Methods | Manual Control | 4-20mA Input | Remote Start/Stop | Alarm Output | FVS | Motor Status Output |
|-----------------|----------------|--------------|-------------------|--------------|-----|---------------------|
| A1F             | •              |              | •                 | •            | •   | •                   |
| A1V             | •              | •            | •                 | •            | •   | •                   |



# Engineering Specifications

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|                                          |                                                      |
|------------------------------------------|------------------------------------------------------|
| <b>Maximum Working Pressure</b>          | 100 psig (6.89 bar)                                  |
| <b>Maximum Fluid Temperature</b>         | 185 °F (85 °C)                                       |
| <b>Maximum Ambient Temperature</b>       | 14 °F to 115 °F/ -10 °C to 46 °C                     |
| <b>Maximum Viscosity</b>                 | 5,000 Centipoise                                     |
| <b>Maximum Suction Lift</b>              | 30 ft. Water at sea level (14.7 atm psi)             |
| <b>Operating Voltage</b>                 | 115V60Hz 1 PH (0.6A max.)                            |
|                                          | 220V50Hz 1 PH (0.3A max.)                            |
|                                          | 230V60Hz 1 PH (0.3A max.)                            |
|                                          | 230V50Hz 1 PH (0.3A max.)                            |
|                                          | 240V50Hz 1 PH (0.3A max.)                            |
| <b>Power Cord Options</b>                | 115V60Hz = NEMA 5/15 (USA)                           |
|                                          | 230V60Hz = NEMA 6/15 (USA)                           |
|                                          | 220V50Hz = CEE 7/VII (EU)                            |
|                                          | 240V50Hz = AS 3112 (Australia/New Zealand)           |
|                                          | 230V50Hz = BS 1363/A (UK)                            |
| <b>Motor</b>                             | Brushless DC, 50W                                    |
| <b>Duty Cycle</b>                        | Continuous                                           |
| <b>Motor Speed Adjustment Resolution</b> | 2,000 : 1 (0.05 - 100%) Max rpm = 65 rpm             |
| <b>Maximum Overall Dimensions</b>        | 7.25" W x 9" H x 10" D (18.5 W x 22.9 H x 25.2 D cm) |
| <b>Product Weight</b>                    | 6 lb. (2.7 Kg)                                       |
| <b>Approximate Shipping Weight</b>       | 13 lb. (5.9 Kg)                                      |
| <b>Approximate Shipping Dimensions</b>   | 10.5" W x 13.75" H x 11" D (26.7 W x 35 H x 28 D cm) |
| <b>Enclosure</b>                         | NEMA 4X (IP66), Valox® (PBT) & PA12                  |
| <b>RoHS Compliant</b>                    | Yes                                                  |
| <b>Standards</b>                         | cETLus, CE                                           |

# Materials of Construction

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| Non-wetted Components:                 |                                                                                     | Wetted Components:                        |                                                                                                                                                        |
|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enclosure:</b>                      | Valox® (PBT) & PA12                                                                 | <b>Pump Head Assembly:</b>                | Tubing**: Flex-A-Prene®, Flex-A-Thane®, Flex-A-Chem®                                                                                                   |
| <b>Pump Head:</b>                      | Valox® (PBT)                                                                        |                                           | Adapter Fittings: PVDF                                                                                                                                 |
| <b>Pump Head Cover:</b>                | Acrylic<br>Permanently lubricated sealed motor shaft support bronze sleeve bearing. |                                           | Body & Insert: PVDF                                                                                                                                    |
| <b>Cover Screws:</b>                   | Stainless steel, polypropylene cap                                                  | <b>Injection / Back-Flow Check Valve:</b> | Check Ball: Ceramic                                                                                                                                    |
| <b>Roller Assembly:</b>                | Rotor: Valox® (PBT)<br>Rollers: Nylon<br>Roller Bearings: Bronze                    |                                           | Spring: Hastelloy C-276                                                                                                                                |
| <b>Motor Shaft:</b>                    | Chrome plated steel                                                                 |                                           | Ball Seat O-Ring: TFE/P                                                                                                                                |
| <b>TFD System Sensor:</b>              | Polysulfone (PES)                                                                   |                                           | Static Seal O-Ring: FKM                                                                                                                                |
| <b>Power Cord:</b>                     | 3 Conductor, SJTW-A water-resistant                                                 | <b>Ancillary Items Provided:</b>          | Suction Tubing: 3/8" OD x 1/4" ID x 10' Clear PVC<br>Discharge Tubing: 3/8" OD x 1/4" ID x 10' Polyethylene (LLDPE)<br>Suction Strainer: Polypropylene |
| <b>Tube Installation Tool:</b>         | GF Nylon                                                                            |                                           | Weight: Ceramic                                                                                                                                        |
| <b>Mounting Brackets and Hardware:</b> | 316 Stainless steel screws, GF Nylon bracket                                        |                                           |                                                                                                                                                        |

\*\* Flex-A-Prene®, Flex-A-Thane®, and Flex-A-Chem® tubing comply with FDA 21 CFR, 117.2600 criteria for food processing.

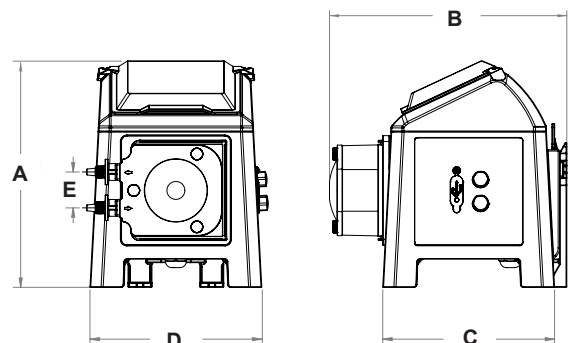
**NOTE:** Additional Accessories, Tanks, and M12 Cables sold separately.

# Output Specifications

| Tube Model | Feed Rate    |               |            | Max Speed | Max Pressure | Max Temperature |
|------------|--------------|---------------|------------|-----------|--------------|-----------------|
|            | GPH          | LPH           | mL/Min     | RPM       | PSI(bar)     | °F(°C)          |
| A1-1*      | 0.001 - 1.09 | 0.002 - 4.13  | .035 - 69  | 65        | 65 (4.50)    | 130 (54)        |
| A1-3*      | 0.003 - 5.60 | 0.011 - 21.2  | .176 - 353 | 65        | 50 (3.45)    | 130 (54)        |
| A1-4*      | 0.001 - 0.44 | 0.001 - 1.68  | .014 - 28  | 65        | 100 (6.89)   | 130 (54)        |
| A1-6*      | 0.001 - 1.35 | 0.003 - 5.14  | .043 - 85  | 65        | 100 (6.89)   | 185 (85)        |
| A1-7*      | 0.004 - 4.17 | 0.0158 - 15.8 | .132 - 263 | 65        | 50 (3.45)    | 185 (85)        |
| A1-8*      | 0.003 - 3.09 | 0.0117 - 11.7 | .098 - 195 | 65        | 50 (3.45)    | 130 (54)        |

# Dimensions

| Dim | Inch  | cm    | Dim | Inch  | cm    |
|-----|-------|-------|-----|-------|-------|
| A   | 9.46" | 24.02 | D   | 7.18" | 18.23 |
| B   | 9.92" | 25.19 | E   | 1.5"  | 3.81  |
| C   | 7.18" | 18.23 |     |       |       |




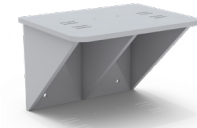






# Model Number Matrix

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## FLEXFLO® Model Number

|                                                                   |                                                                                   |          |                                   |          |               |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------|----------|---------------|
| <b>A1</b>                                                         | FLEXFLO® Peristaltic Metering Pump                                                |          |                                   |          |               |
| <b>Series</b>                                                     |                                                                                   |          |                                   |          |               |
| <b>F</b>                                                          | Standard Control Methods (Manual, Remote On/Off)                                  |          |                                   |          |               |
| <b>V</b>                                                          | 4-20mA Input, In Addition to Standard Control Methods (Manual, Remote)            |          |                                   |          |               |
| <b>Power Cord (Operating voltage requirement 96VAC to 264VAC)</b> |                                                                                   |          |                                   |          |               |
| <b>4</b>                                                          | 115V 50/60Hz, NEMA 5/15 plug (US)                                                 | <b>6</b> | 220V 50/60Hz, CEE 7/V11 plug (EU) | <b>X</b> | No Power Cord |
| <b>Pump Tube Size and Material</b>                                |                                                                                   |          |                                   |          |               |
| <b>1</b>                                                          | 1/4" OD Flex-A-Thane®   0.001 – 1.09 GPH   .035 - 69 mL/Min   65 PSI (4.5 bar)    |          |                                   |          |               |
| <b>3</b>                                                          | 7/16" OD Flex-A-Thane®   0.003 – 5.60 GPH   .176 - 353 mL/Min   50 PSI (3.45 bar) |          |                                   |          |               |
| <b>4</b>                                                          | 1/4" OD Flex-A-Prene®   0.001 - 0.44 GPH   .014 - 28 mL/Min   100 PSI (6.89 bar)  |          |                                   |          |               |
| <b>6</b>                                                          | 3/8" OD Flex-A-Prene®   0.001 – 1.35 GPH   .043 - 85 mL/Min   100 PSI (6.89 bar)  |          |                                   |          |               |
| <b>7</b>                                                          | 7/16" OD Flex-A-Prene®   0.002 – 4.17 GPH   .132 - 263 mL/Min   50 PSI (3.45 bar) |          |                                   |          |               |
| <b>8</b>                                                          | 7/16" OD Flex-A-Chem®   0.002 – 3.09 GPH   .098 - 195 mL/Min   50 PSI (3.45 bar)  |          |                                   |          |               |
| <b>Inlet/Outlet Connection Size, Connection Type</b>              |                                                                                   |          |                                   |          |               |
| <b>T</b>                                                          | 3/8" OD x 1/4" Tube Compression Fitting                                           |          |                                   |          |               |
| <b>M</b>                                                          | 1/2" Male NPT Fitting                                                             |          |                                   |          |               |
| <b>MB</b>                                                         | 1/2" Male BSPT Fitting, Natural PVDF (Kynar)                                      |          |                                   |          |               |
| <b>A1</b>                                                         | <b>F</b>                                                                          | <b>4</b> | <b>-</b>                          | <b>1</b> | <b>T</b>      |
| <b>Sample Model Number</b>                                        |                                                                                   |          |                                   |          |               |

## Accessories

|                                                                                                                                                                                                                                                                                   |                                                                                                                                         |                                                                                                                                        |                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>KIT-S07</b><br/><b>KIT-S15</b><br/><b>KIT-S30</b></p> <p>* Includes cover and foot valve</p> <p>KIT-S07 (7 Gallon), KIT-S15 (15 Gallon), KIT-S30 (30 Gallon)<br/>STAR III TANKS, PP</p> |  <p><b>KIT-PSM</b><br/>WALL MOUNT BRACKET, HDPE</p> |  <p><b>KIT-MB</b><br/>FLOOR MOUNTING BRACKETS</p> |                                                                                                                                                      |
| <p>90010-663 115V/60Hz NEMA 5/15<br/>90010-664 220V/50Hz CEE 7/V11<br/>90010-665 230V/50Hz BS 1363/A<br/>90010-666 240V/50Hz AS 3112<br/>90010-696 230V/60Hz NEMA 6/15</p> <p><b>POWER CABLES - 6 ft</b></p>                                                                      |  <p><b>CABLE-UAC</b><br/>USB A-C CABLE - 3 ft</p>    |  <p><b>KIT-M12</b><br/>TWO M12 CABLES - 9.8 ft</p> |  <p><b>A1-(see spare parts page)</b><br/>Spare Tube Element</p> |
|  <p><b>TI40-6V</b><br/>T.I. INJECTOR, 3/8" OD</p>                                                                                                                                       |  <p><b>C-340A</b><br/>FOOT VALVE</p>                 | <p><b>Visit Accessory Pages for More Options</b></p>                                                                                   |                                                                                                                                                      |