

# A1

## FLEXFLO® Peristaltic Metering Pump



### Features

- > Tube Failure Detection (TFD+) senses tube rupture
- > Heavy duty display shield protects pump controls
- > SCADA Inputs include: 4-20mA (on "V" model), Remote Start/Stop
- > SCADA Outputs include: 4-20mA (on "V" model), single 250V/3A Relay (TFD+/FVS), and a single solid state (Motor On)
- > FDA compliant tubing

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	4-20mA Output	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>Signal Connectors</b>	M12 - 5 pin (IP67 rated connectors on "V" models)
<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 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) Rollers: Nylon 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
<b>Mounting Brackets and Hardware:</b>	316 Stainless steel screws, GF Nylon bracket		Discharge Tubing: 3/8" OD x 1/4" ID x 10' Polyethylene (LLDPE)
			Suction Strainer: Polypropylene
			Weight: Ceramic

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

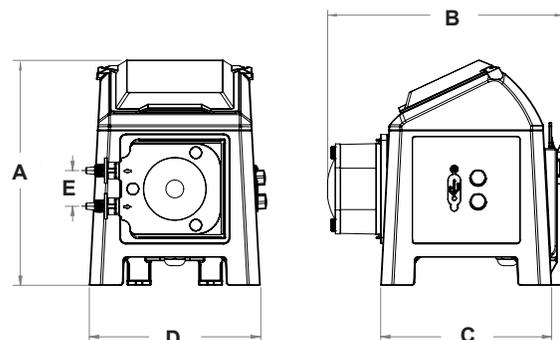
**NOTE:** Additional Accessories, Tanks, and M12 Cables sold separately.

# 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
<b>A</b>	9.46"	24.02	<b>D</b>	7.18"	18.23
<b>B</b>	9.92"	25.19	<b>E</b>	1.5"	3.81
<b>C</b>	7.18"	18.23			



# Model Number Matrix

## 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, 4-20mA Output, 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> <b>KIT-S15</b> <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) STAR III TANKS, PP</p>	 <p><b>KIT-PSM</b> WALL MOUNT BRACKET, HDPE</p>		
<p>90010-663 115V/60Hz NEMA 5/15 90010-664 220V/50Hz CEE 7/V11 90010-665 230V/50Hz BS 1363/A 90010-666 240V/50Hz AS 3112 90010-696 230V/60Hz NEMA 6/15 90010-821 115V Lockable</p> <p><b>POWER CABLES - 6 ft</b></p>	 <p><b>CABLE-UAC</b> USB A-C CABLE - 3 ft</p>	 <p><b>KIT-M12</b> TWO M12 CABLES - 9.8 ft</p>	 <p><b>A1-(see spare parts page)</b> Spare Tube Element</p>
 <p><b>TI40-6V</b> T.I. INJECTOR, 3/8" OD</p>	 <p><b>C-340A</b> FOOT VALVE</p>	<p><b>Visit Accessory Pages for More Options</b></p>	