## - THE CLASSICS -Blue-Whites Industries, Ltd. - METERING PUMPS -& FLOWMETERS

**PRECISION CHEMICAL METERING & FLOW MONITORING** 

ProSeries

CLEAR

S6 Chemical Feed Display

16 15

ProSeries

L2 FLOW



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## BLUE-WHITE<sup>®</sup> HAS BEEN A LEADING MANUFACTURER OF TOP QUALITY FLOWMETERS, METERING PUMPS AND WATER TREATMENT ACCESSORIES FOR CLOSE TO SIX DECADES.

AT BLUE-WHITE®, WE PRIDE OURSELVES on innovative engineering, quality materials of construction and excellent customer service. Our worldwide network of factory authorized representatives, distributors, dealers and warranty centers look forward to serving you. This catalog is designed to familiarize you with Blue-White's extensive product lines. If you don't see the product that meets your system requirements please contact the factory. Blue-White® is pleased to provide price quotation for custom calibrations and feed rates; alternate materials of construction, and private labeling to volume purchasers. In addition to the products shown on these pages, Blue-White® manufactures an extensive line of products for larger system requirements, including Industrial and Municipal installations.

ProSeries

## ProSeries 56A Chemical Feed Sensor

The all NEW ProSeries<sup>®</sup> S6A Chemical Feed Sensor accurately measures chemical feed from your metering and dosing pumps. The patent pending design provides the widest flow range on the market, from 10 to 10,000 ml/min (0.158-158.5 GPH). S6A also has a low pressure drop of less than 1 PSI.

The sensor can handle harsh and corrosive chemicals with wetted components constructed out of PVDF and PEEK. The inline pipe fittings allow quick and easy installation.

The S6A has a built-in status LED light for quick visual inspection. The process control is via a configurable solid state relay, which can be configured to a close or open trigger at a set flow-rate, or a flow total for batching operation.

The highly affordable and extremely accurate S6A Chemical feed sensor is unlike anything the Industry has ever seen.

### **PROSERIES S6A ORDERING GUIDELINES**

MODEL	Flow Range				
NUMBER	GPH	mL/min			
S6A1X(*)X	0.158-79.2	10-5,000			
S6A11(*)X	0.158-79.2	10-5,000			
S6A2X(*)X	1.58-158.5	100-10,000			
S6A21(*)X	1.58–158.5	100–10,000			

Elastomer Material (O-Rings) OPTIONS (\*)Replace: V=TFE/P & PVDF, E=EP & PVDF





## **CHEM-FEED**<sup>®</sup> METERING PUMPS

## AN EFFICIENT, DEPENDABLE DESIGN THAT IS ECONOMICAL AND VERSATILE

CHEM-FEED® INJECTORS COMBINE HIGH QUALITY MATERIALS of construction and smart engineering with flexibility and value.

Because we manufacture most of the components in our own plant, including the all ball bearing gear motor, we can offer CHEM-FEED<sup>®</sup> metering pumps with a wide range of configuration, material, voltage and feed rate options.

All CHEM-FEED<sup>®</sup> metering pumps feature Blue-White's exclusive heavy duty cartridge valve head. The thoughtful design of this pump head begins with bullet cartridge valves constructed of tough PVDF plastic. Each valve has two ceramic ball checks and is double sealed with high grade Aflas o-rings. The double ball valve pump head design ensures enhanced priming capabilities, and it is exceptional for purging air and gas.

## Don't Settle for Imitations – Insist on CHEM-FEED® Metering Pumps!

## **CHEM-FEED® APPLICATIONS**

- Water treatment and conditioning.
- Soap, wax and detergent injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

## CHEM-FEED<sup>®</sup> C-1500N Quality. Performance. Options.

## Blue-White's CHEM-FEED® C-1500N Metering Pumps are well suited to a variety of water and wastewater treatment applications.

C-1500N Series injectors feature Blue-White's exclusive Heavy Duty Head with Cartridge Valves constructed of tough PVDF. Each valve has two ceramic checks, and is double sealed. The double ball valve design provides enhanced priming, and is exceptional for purging air and gas. The Heavy Duty Head is nearly maintenance-free, and Bottom and Top Valves are completely interchangeable for quick, easy and economic servicing.

Two distinct models are offered. The STANDARD C-1500N features quick adjusting and, high accuracy mechanical stroke length. The pump's efficient design allows for a minimum stroke length of 5%. Minimum recommended output is 5% of maximum.

## **C-1500N SPECIFICATIONS**

Max. Working Pressure	. 125 psig (8.6 bar)
Max. Fluid Temperature	. 130° F (54° C)
Ambient temp range	. 14° to 110° F (-10° to 43° C)
Max. viscosity	. 1000 Centipoise
Max. suction lift	. 10 ft. Water @ 0 PSI (3.05 m @ 0 bar)
Output accuracy	. +/- 10% of max. (water 0 psi, 5' suction lift)
Turndown ratio	. 20:1 Standard models, 200:1 Deluxe models
Enclosure	Acceptable for outdoor use. NEMA 3R (IP23)
Amperage draw	. 115V/60Hz starting .74 / running .45
	230V/60Hz starting .36 / running .21
	220V/50Hz starting .31 / running .19
	24V/60Hz starting 3.4 / running 2.0
0-ring seals	. FKM and TFE/P (Optional EP)
Dimensions	. 9-1/2" H x 4-1/2" Ŵ x 5-3/4" D
	(24.1cm x 11.4cm x 14.6cm)
Approvimato chipping wt	8 lb (3.6 kg)

Approximate shipping wt. .. 8 lb. (3.6 kg)

### **C-1500N ORDERING GUIDELINES**

STANDARD MODEL with Stroke Adjustment							
MODEL	MAX	( OUTP	UT @ 0	PSI	Max Strokes	MAX	MAX
NUMBER	GPD	GPH	LPH	OZ/MIN	Per minute	PSI	bar
C15N0(*)2X026V00	3.4	0.2	0.5	0.3	14	125	8.6
C15N1(*)2X026V00	8.3	0.3	1.3	0.7	30	125	8.6
C15N3(*)2X026V00	16.3	0.6	2.5	1.4	60	125	8.6
C15N2(*)2X000V00	26.6	1.1	4.2	2.4	45	125	8.6
C15N4(*)2X026V00	34.2	1.4	5.4	3.0	125	125	8.6
C15N2(*)4X000V00	49.0	2.0	7.7	4.3	45	125	8.6
C15N3(*)4X000V00	57.7	2.4	9.1	5.1	60	125	8.6
C15N4(*)2X000V00	68.4	2.8	10.8	5.9	125	125	8.6
C15N4(*)4X000V00	119.7	4.9	18.9	10.6	125	70	4.8
C15N4(*)1X000V00	155.9	6.4	24.6	13.8	125	20	1.4
C15N4(**)3X000V00	228.1	9.5	36.0	20.2	125	10	0.7

DELUXE MODEL	with Stroke and Time I	nterval Adjustment

MODEL	MA	X OUTPUT @ O	PSI	Max Strokes	MAX	MAX
NUMBER	GPH	LPH	OZ/MIN	Per minute	PSI	bar
C15N4(*)2I026V00	.007-1.4	.027-5.40	.015-3.00	125	125	8.6
C15N4(*)21000V00	.014-2.8	.054-10.8	.030-5.90	125	125	8.6
C15N4(*)11000V00	.032-6.4	.123-24.6	.069-13.8	125	20	1.4
VOLTAGE OPTIONS						

(\*)Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz, 3=24V/60Hz (\*\*)Replace: 4=115V/60Hz, 5=220V/50Hz, 6=230V/60Hz Note: 220V/50Hz units deliver approximately 20% less output C-1500N

## CHEM-FEED<sup>®</sup> C-1700N Duplex Head Pump

## The CHEM-FEED® C-1700N Duplex Head Metering Pump features two independently controlled pump heads.

Because of the unique duplex head configuration, motor power is used to maximum efficiency. This is of particular importance for overcoming backpressure. Also, alternating strokes mean double the injections per minute. For example, a 125 RPM delivers 250 injections per minute, or four injections per second. This is of significance for applications requiring a pump approaching a constant, even feed rate, without broad spaces of time between injections.

The C-1700N can be used to inject different amounts of like chemical into separate systems, feed two different chemicals into the same system (blend), or when a single head pump doesn't provide quite enough output.

## **C-1700N SPECIFICATIONS**

Max. Working Pressure	125 psig (8.6 bar)
Max. Fluid Temperature	130° F (54° C)
Ambient temp range	14° to 110° F (-10° to 43° C)
Max. viscosity	1000 Centipoise
Max. suction lift	10 ft. Water @ 0 PSI (3.05 m @ 0 bar)
Output accuracy	+/- 10% of max. (water 0 psi, 5' suction lift)
Turndown ratio	20:1 Standard models
	400:1 Deluxe models with optional Time
	Interval controller
Amperage draw	115V/60Hz starting .74 / running .45
	230V/60Hz starting .36 / running .21
	220V/50Hz starting .31 / running .19
	24V/60Hz starting 3.4 / running 2.0
0-ring seals	FKM and TFE/P

Dimensions .... Approximate shipping wt. .. 11 lb. (5.0 kg)

## **C-1700N ORDERING GUIDELINES**

### **STANDARD MODEL with Stroke Adjustment**

MODEL NUMBER	GPD	MAX OUTP GPH	UT @ 0 PS LPH	I OZ/MIN	Max Strokes Per minute	MAX PSI	MAX bar
C17N0(*)2X000V00	14.2	0.6	2.3	1.3	14	125	8.6
C17N0(*)4X000V00	28.9	1.2	4.5	2.6	14	125	8.6
C17N2(*)2X000V00	50.2	2.1	7.9	4.4	45	125	8.6
C17N3(*)2X000V00	62.3	2.6	9.8	5.5	60	125	8.6
C17N2(*)4X000V00	89.7	3.7	14.1	8.0	45	125	8.6
C17N3(*)4X000V00	119.0	5.0	18.8	10.6	60	125	8.6
C17N4(*)2X000V00	133.8	5.5	21.1	11.9	125	125	8.6
C17N4(*)4X000V00	243.3	10.1	38.4	21.6	125	70	4.8
C17N4(*)1X000V00	304.2	12.6	48.0	27.0	125	20	1.4

VOLTAGE OPTIONS

(\*)Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz

Note: 220V/50Hz units deliver approximately 20% less output

Please Note: Outputs given are a combined total of both pump heads using pure water at zero gauge pressure. All C-1700N are shipped complete with accessory package. Ordering matrix available on request, Order #85000-057.



## FLOW INDICATOR Diagnostic Tool for Chemical Feed Pumps

## BENEFITS

- Rhythmic rising and falling of the ball indicates positive flow.
- Air bubbles indicate chemical has exhausted.
- Stationary ball indicates no flow. Possible problems could be: plugged or dirty
- lost prime
- · stopped motor
- plugged injection fitting
- chemical has been exhausted for a faulty tube or diaphragm

footvalve filter

lengthy period of time

## **APPLICATIONS**

- Glass bobbin for Chlorines and Acids.
- Stainless Steel bobbin for soaps and waxes (high viscose fluids). >

## **ORDERING GUIDELINES**

MODEL NUMBER	Tube Connection	Bobbin Material	Body Material	0-ring
FI-100-4V	1/4" tubing	Glass	Acrylic	FKM
FI-100S-4V	1/4" tubing	Stainless Steel	Acrylic	FKM
FI-100-6V	3/8" tubing	Glass	Acrylic	FKM
FI-100S-6V	3/8" tubing	Stainless Steel	Acrylic	FKM

# FOOT VALVE/ STRAINER

## **APPLICATIONS**

- Foot Valve / Strainer (with check valve) is recommended for CHEM-FEED® models C-340A and C-340E.
- Foot Strainer (no valve) is recommended for FLEXFLO® peristaltic pumps model C-342-6.
- Capacity of strainer is 300 micron.

## ORDERING GUIDELINES

OND				
MODEL	Tube	(OD)	Body	
NUMBER	Connection	Valve	Material	0-ring
C-340A	1/4" and 3/8" tubing	Check Valve	PVDF	Aflas
C-340E	1/4" and 3/8" tubing	Check Valve	PVDF	Aflas
C-342-6	1/4" and 3/8" tubing	No Valve, strainer only	Polypropylene	Aflas



(NSE) CE

C-1700N

## CHEM-FEED<sup>®</sup> C-600P Simple. Proven. Performance.

## CHEM-FEED® C-600P BENEFITS

- Stroke adjustment from 4–100% permits small injections at a higher rate per minute.
- Double-ball inlet and outlet cartridge type ceramic check valves.
- PVDF valve body and fitting, ceramic balls, FKM and TFE/P o-rings.
- PTFE coated EP diaphragm.
- All ball bearing, permanently lubricated gear motor for smooth, powerful operation.
- Polypropylene injection check valve with FKM and TFE/P o-rings and spring loaded ceramic ball seal.
- PVDF suction (foot) valve with FKM and TFE/P o-rings, ceramic check ball and removable polypropylene filter screen.
- Includes 3/8" OD, 1/4" ID suction and discharge tubing, and all mounting hardware.
- Efficient, dependable design each unit is factory tested.

## **C-600P ORDERING GUIDELINES**

## STANDARD MODEL with Stroke Adjustment

MODEL		MAX OUTP	UT @ 0 F	PSI	MAX	MAX	
NUMBER	GPD	GPH	LPH	OZ/MIN	PSI	bar	
C-614P-(*)VAC	24	1.0	3.8	2.7	125	8.6	
C-630P-(*)VAC	58	2.4	9.3	5.2	125	8.6	
C-645P-(*)VAC	91	3.8	14.9	8.1	80	5.5	
C-660P-(*)VAC	110	4.6	17.4	9.8	60	4.1	
C-6125P-(*)VAC	237	9.9	37.0	21.1	30	2.0	
C-6250P-(*)VAC	389	16.2	61.4	34.6	10	0.7	
VOLTAGE OPTIONS							

115=115V/60Hz, 220=220V/50Hz, (\*)Replace:

230=230V/60Hz, 24=24V/60Hz Note: 220V/50Hz units deliver approx. 20% less output

C-600P	
SPECIFICATIO	NS
Max. Working Pressure	125 psig (8.6 bar)
Max. Fluid Temperature	.130° F (54° C)
Ambient temp range	.14° to 110° F (-10° to 43° C)
Max. viscosity	
	10 ft. Water @ 0 PSI (3.05 m @ 0 bar)
Output accuracy	
	(water 0 psi, 5' suction lift)
Turndown ratio	27:1 Standard models
Amperage draw	115V/60Hz starting .74 / running .45
	230V/60Hz starting .36 / running .21
	220V/50Hz starting .31 / running .19
	24V/60Hz starting 3.4 / running 2.0
	12VDC 3.0 amp max
Dimensions	6-1/2" H x 6-5/8" W x 5-3/8" D (16.5cm x 16.8cm x 13.7cm)
Approximate shipping wt.	

## \* CHEM-FEED® C-600P **(D**). (NSE)

CE

## CHEM-FEED® C-600HV

## **CHEM-FEED® C-600HV BENEFITS**

- · Acrylic pump head.
- Ethylene-propylene diaphragm.
- Ethylene-propylene O-ring seals.
- 1/2" ID barbed tubing connections.

## **CHEM-FEED® C-600HV APPLICATIONS**

- Low pressure and open atmosphere metering.
- Plating chemicals.
- · Water and wastewater treatment.

## **C-600HV ORDERING GUIDELINES**

STANDARD MODEL with Stroke Adjustment										
MODEL		MAX OUTI	PUT @ 0 PS	51	MAX	Max				
NUMBER	GPD	GPH	LPH	OZ/MIN	PSI	bar				
C-660HV-(*)VAC	189	7.8	29.5	16.8	20	1.4				
C-6125HV-(*)VAC	398	16.5	62.4	35.3	10	0.7				
C-6250HV-(*)VAC	791	32.9	124.5	70.3	5	0.3				
VOLTAGE OPTIONS										

(\*)Replace: 115=115V/60Hz, 220=220V/50Hz, 230=230V/60Hz, 24=24V/60Hz Note: 220V/50Hz units deliver approx. 20% less output. 12V DC and 24V DC models also available.

## **C-600HV SPECIFICATIONS**

Max. Working Pressure..... 20 psig (1.4 bar) Max. Fluid Temperature.... 130° F (54° C) Ambient temp range ...... 14° to 110° F (-10° to 43° C) Amperage draw ... 115V/60Hz ...starting .74 / running .45 230V/60Hz ...starting .36 / running .21 220V/50Hz...starting .31/running .19 24V/60Hz ..... starting 3.4 / running 2.0 Dimensions

Approximate shipping wt.. 8 lb. (3.6 kg)



## CHEM-FEED<sup>®</sup> C-1100 SERIES Diaphragm Metering Pumps



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**DIGITAL V MODEL - VARIABLE SPEED UNIT** with Stroke Length & 4-20mA. 0-10dc. and Pulse Input Speed Control

## **Standard Model**

## **CHEM-FEED® STANDARD X MODEL FIXED SPEED**

Features a quick-adjusting, high accuracy mechanical stroke length control. The efficient design of the pump allows for a minium stroke length of 5%. Maximum recommended output is 5% of maximum.

## **Deluxe Model**

## CHEM-FEED® DELUXE C MODEL FIXED SPEED

Features stroke length and electronic time interval control. The pumps' on-time is adjustable from 5-100% of the repeating 5 second time interval. (0.25-5.0 seconds). The high frequency of the repeating 5 second time interval and the extremely accurate mechanical stroke adjustment, result in a higher frequency of small injections per minute. Minimum recommended output is 5% of maximum.

## CHEM-FEED® DELUXE F MODEL VARIABLE SPEED

Stroke length and analog speed control. The pumps' speed is adjustable from 10-100% of the maximum using a dial knob style controller. The minimum recommended output is .25% of the maximum. No special input signal connectors to purchase. Model features a 1 amp alarm output.

## **Digital Model**

## CHEM-FEED® DIGITAL E MODEL FIXED SPEED

Features stroke length, electronic user programmable time interval. Interval lengths are user programmable from 0.1 to 99 seconds, in 0.1 increments, with external interval control. The unit accepts pulse inputs (programmable from 1-9900) which can trigger programmable timed chemical injection batches from 0.1-99 seconds in duration. Analog signals can be used to remotely vary the interval timer's on-time adjustment.

## **CHEM-FEED® DIGITAL V MODEL VARIABLE SPEED**

Features stroke length, manual digital percentage and external input signal speed control. The unit accepts pulse inputs from 0-500Hz and 4-20mA or 0-10VDC analog input signals. The minimum and maximum speed at the minimum and maximum input values can be programmed using the digital LCD display. Flow verification sensor option is available. No special input signal connectors to purchase. Model features a 1 amp alarm output.

## **CHEM-FEED® DELIVERS PRECISION, CHEMICAL METERING AND EFFICIENT,** DEPENDABLE OPERATION.

### **CHEM-FEED® BENEFITS**

- Superior pump head design.
- Max feed rate of 15 GPH (56.8 LPH).
- All ball bearing, permanently lubricated gear motor for smooth, powerful operation.
- Efficient, dependable design each unit is factory tested.
- 3/8" OD x 1/4" ID tubing connections.

### **CHEM-FEED® APPLICATIONS**

- · Water treatment and conditioning
- Soap, wax and detergent injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

## **CHEM-FEED® SPECIFICATIONS**

Max. Working Pressure Max. Fluid Temperature	. 130° F (ŠÅ°C)
Ambient temp range	
Max. viscosity	
Max. suction lift	. 10 ft. Water @ 0 PSI (3.05 m @ 0 bar)
Output accuracy	. +/- 1% full scale repeatability
Turndown ratio	. 20:1 Standard Fixed Models
	400:1 Deluxe Fixed Models
	4000:1 Digital Fixed Models
	400:1 Variable Speed Models
Enclosure	Acceptable for outdoor use. NEMA 3R (IP23)
Amperage draw	. 115V/60Hz start 1.37 / run .35
1 3	230V/60Hz start 0.57 / run .18
	220V/50Hz start 0.49 / run .23
O-ring seals	FKM and TFE/P (Optional EP)
Dimensions	
	15.9cm x 25.4cm x 23.5cm
Approximate shipping wt	. 12 lb. (5.4 kg)

hipping

### **C-1100 ORDERING GUIDELINES**

MODEL NUMBER	GPD N	MAX OUTPUT AT O PSI GPD GPH LPH O7/MIN				MAX PSI	MAX bar
C11(*)3(**)4X000V00	57.7	2.4	9.1	5.1	Per minute 60	150	10.3
C11(*)4(**)4X000V00	119.7	4.9	18.9	10.6	125	150	10.3
C11(*)4(**)1X000V00	155.9	6.4	24.6	13.8	125	150	10.3
C11(*)5(**)4X000V00	260.8	10.8	41.1	23.1	250	100	6.9
C11(*)5(**)3X000V00	360.0	15.0	56.8	32.0	250	25	1.7

### MODEL OPTIONS

(\*)Replace: X= STANDARD X MODELS with Stroke Adjustment

C=DELUXE C MODELS with Stroke and Time Adjustment

E=DIGITAL E MODELS with Stroke, Pulse, and 4-20mA Adjustment F=DELUXE F MODELS with Stroke and Dial Knob Speed Adjustment (Variable Speed)

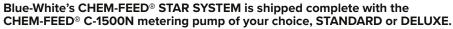
V=DIGITAL V MODELS with Stroke, Pulse, and 4-20mA Analog Speed Adjustment (Variable Speed)

### **VOLTAGE OPTIONS**

(\*)Replace: 4=115V/60Hz, 5=220V/50Hz, 6=230V/60Hz, 7=240V/50Hz

Note: 220V/50Hz units deliver approximately 20% less output.

## CHEM-FEED STAR SYSTEM Ships Complete



The Star System includes the CHEM-FEED C-1500N metering pump of your choice mounted on a sturdy polyethylene tank. Flooded suction assists in priming.

For a thoughtfully designed top quality Metering System, choose the Star System.

## **STAR SYSTEM C-1500N BENEFITS**

- Three tank capacities to choose from:
- 7 gallon, 15 gallon, or 30 gallon.
- All necessary accessories are included. The Polyethylene tank has extra heavy wall thickness for stability with U.V.
- inhibitor for sunlight protection. · Lid positions include open, closed,
- or vent.
- Convenient rectangle shape.
- Raised off the floor for easy wash down.

#### STAR SYSTEM

DIM 'A'

17.5 (44.5)

22.0 (56.0)

30 GALLON TANK 27.0 (69.0) 20.0 (51.0)

DIM 'B'

12.0 (30.5)

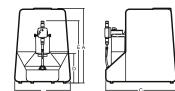
15.5 (38.0)

DIM 'C

16.0 (41.0)

19.5 (50.0)

24.0 (61.0)



DIM 'D'

7.8 (19.7)

7.8 (19.7)

7.8 (19.7)

DIMENSIONS - INCHICK SHIP WT

19 LB. (9 Kg)

28 LB. (13 Ka)

36 LB. (16 Kg)

DIM 'E'

17.0 (43.0)

17.0 (43.0)

17.0 (43.0)

#### **STAR SYSTEM ORDERING GUIDELINES**

STANDARD MODEL with 7, 15, and 30 GALLON Tanks

MODEL	MAX OUTPUT @ 0 PSI				Max Strokes	MAX	MAX			
NUMBER	GPD	GPH	LPH	OZ/MIN	Per minute	PSI	bar			
T15N0(*)2X026V0(***)	3.4	0.2	0.5	0.3	14	125	8.6			
T15N1(*)2X026V0(***)	8.3	0.3	1.3	0.7	30	125	8.6			
T15N3(*)2X026V0(***)	16.3	0.6	2.5	1.4	60	125	8.6			
T15N2(*)2X000V0(***)	26.6	1.1	4.2	2.4	45	125	8.6			
T15N4(*)2X026V0(***)	34.2	1.4	5.4	3.0	125	125	8.6			
T15N2(*)4X000V0(***)	49.0	2.0	7.7	4.3	45	125	8.6			
T15N3(*)4X000V0(***)	57.7	2.4	9.1	5.1	60	125	8.6			
T15N4(*)2X000V0(***)	68.4	2.8	10.8	5.9	125	125	8.6			
T15N4(*)4X000V0(***)	119.7	4.9	18.9	10.6	125	70	4.8			
T15N4(*)1X000V0(***)	155.9	6.4	24.6	13.8	125	20	1.4			
T15N4(**)3X000V0(***)	228.1	9.5	36.0	20.2	125	10	0.7			
DELUXE MODELS with 7 4E and 20 CALLON Tanks										

DELUXE MUDELS WITH 7, 15, and 30 GALLON TANKS										
MODEL	MA	X OUTPUT @ 0	PSI	Max Strokes	MAX	MAX				
NUMBER	GPH	LPH	OZ/MIN	Per minute	PSI	bar				
T15N4(*)2I026V00	.007-1.4	.027-5.40	.015-3.00	125	125	8.6				
T15N4(*)2I000V00	.014-2.8	.054-10.8	.030-5.90	125	125	8.6				
T15N4(*)11000V00	.032-6.4	.123-24.6	.069-13.8	125	20	1.4				

VOLTAGE OPTIONS

(\*) Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz (\*\*) Replace: 4=115V/60Hz, 5=220V/50Hz, 6=230V/60Hz

Note: 220V/50Hz units deliver approximately 20% less output

GALLON OPTIONS

(\*\*\*) Replace: 1=7 Gallon, 2=15 Gallon, 3=30 Gallon

### STAR TANKS ONLY

MODEL	CAF	PACITY
NUMBER	GAL	LITER
STAR 7	7	26.5
STAR 15	15	57
STAR 30	30	113.5

**∰** (€ (NSF) .(T).

## FLEXFLO STAR III Metering System

7 GALLON TANK

15 GALLON TANK

Blue-White's STAR III® Metering System features the FLEXFLO® A-100N Series Peristaltic Metering Pump of your choice, combined with a sturdy Polyethylene tank.

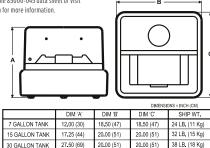
Choose between FLEXFLO'S fixed or variable speed A-100N models, equipped with standard or digital controls.

For an efficient and dependable Peristaltic Metering System Package, get FLEXFLO® STAR III®.

## FLEXFLO® STAR III® BENEFITS

- Three tank capacities to choose from: 7 gallon, 15 gallon, or 30 gallon.
- All necessary accessories are included.
- The Polyethylene tank has extra heavy wall thickness for stability with U.V. inhibitor for sunlight protection.
- · Lid positions include open, closed, or vent.
- Convenient rectangle shape.
- Raised off the floor for easy wash down. •

Note: Refer to the 85000-045 data sheet or visit blue-white.com for more information





5

# FLEXFLO<sup>®</sup> PERISTALTIC METERING PUMPS

## WHEN YOUR INSTALLATION NEEDS A COMPACT PERISTALTIC METERING PUMP DON'T SETTLE FOR LESS THAN THE BEST-FLEXFLO®!

## PERISTALTIC INJECTORS ARE WELL SUITED TO

**METERING CHEMICALS** that could foul heads with conventional check valves. Peristaltic pumps have rollers that compress the tube in a progressive squeezing action.

Blue-White's superior FLEXFLO® peristaltic injectors have an impressive edge over the others. Only FLEXFLO® pumps feature Blue-White's Superior Pump Head and Tube Design.

All FLEXFLO® Peristaltic Pumps are equipped with Blue-White's exclusive patented TUBE FAILURE DETECTION SYSTEM. No other manufacturer can offer this feature.

## **ADVANCED PUMP HEAD & TUBE DESIGN**

- Increased Performance: The precision circumference of the New Pump Head ensures even greater accuracy. Larger internal adapter ports will handle higher viscosity fluids.
- Increased Strength: A strong pump head adapter plate ensures adapters are secured in place. Tougher, more durable tube adapters are manufactured of natural PVDF.
- Easy Reorder: Tube assemblies are stamped with simple reorder number.

**FLEXFLO® OPTIONS** There are a wide range of feed/output rate options, voltage options, motor options, feature and configuration options. In addition, the factory is pleased to quote on custom material and output options, as well as private labeling and packaging for volume purchasers meeting purchase requirements.

## FLEXFLO® BENEFITS

- Precise chemical feed up to 124 GPD / 469.4 LPD.
- Max working pressure of 100 PSI / 6.9 bar.
- Exclusive, Built-in Tube Failure Detection System (TFD).
  FLEXFLO® A-100N pumps are compatible with Blue-White's
- Micro-Flo Verification Sensor.
- De-gassing design eliminates gas or air accumulation in the head.
- Output amount is not affected by changes in back pressure.
- Durable housing of rugged Valox.



FLEXFLO<sup>®</sup> A-100NF - VARIABLE SPEED UNIT with Percentage Speed Control

## FLEXFLO® APPLICATIONS

- Water treatment and conditioning.
- Proportional Chemical injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

## **FLEXFLO® SPECIFICATIONS**

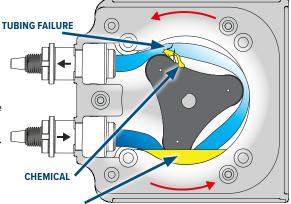
Max. Working Pressure	100 psig (6.9 bar)
Max. Fluid Temperature	130°F (54°C)
Ambient Temp Range	14° to 110°F(-10° to 43°C)
Max. Viscosity	5,000 Centipoise
Max. Suction Lift	30 ft. Water 0 psig (9.14 m @ 0 bar)
Duty Cycle	Continuous
Max. Solids	
Amperage Draw	115V/60Hz, 230V/60Hz, 220V/50Hz
Injection Fitting O-ring Seals	. FKM and TFE/P (Optional EP)
Dimensions	6-1/4" H x 10" W x 9-1/4" D
	15.9cm x 25.4cm x 23.5cm
Approx. Shipping Weight	10 lb. (4.5 kg)

## The Exclusive TUBE FAILURE DETECTION SYSTEM



Blue-White's exclusive patented Tube Failure Detection system, no one comes close to this breakthrough technology (U.S. patent: 7,001,153 and 7,284,964). In fact, the TFD may be the most important patent ever awarded for peristaltic metering pumps. The TFD System will detect a wide range of conductive chemicals with no false triggering. If the TFD senses tube failure, the pump will automatically shut off and energize a relay or switch, permitting communication with external equipment, such as a back-up pump or alarm.

Simple, efficient and BUILT-IN to every FLEXFLO® Pump



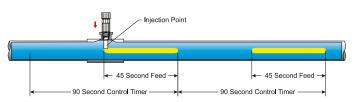
CHEMICAL IS IMMEDIATELY DETECTED IN THE PUMP HEAD. THE PUMP SHUTS DOWN.

## FLEXFLO FIXED SPEED VS. VARIABLE SPEED Units

**FIXED SPEED MODELS** (intermittent cycle time output)

You control the pumps feed by using timers

(built-in or external). See image below.

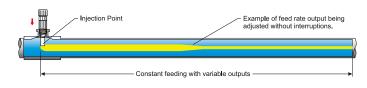


Most fixed speed outputs can be adjusted by simply: 1) Selecting the pump head tube size

2) Choosing the desired RPM (revolutions per minute).

## VARIABLE SPEED MODELS (continuous pulse free output)

Continuous pumping, even while adjusting the percentage of output. See image below.



Graphical representation of the Variable Speed and Fixed Speed peristaltic pump injection characteristics. NOTE: Your chemical or solution is mixed in the fluid. This image is only illustrating the feed characteristics.

## FLEXFLO PUMP TUBING Material Selection Guide

## **FLEX-A-PRENE® TUBING**

Alcohol general Aluminum Sulfate (Alum) Ammonium chloride Ammonium hydroxide Benzyl alcohol Bleach Brine solutions Calcium hydroxide Calcium hypochlorite 20% Citric Acid Ethylene glycol Ferric chloride Ferric nitrate Ferric sulfate Ferrous chloride - 43% in water Ferrous sulfate Fluosilic Acid (up to 25%) Formic acid Glucose Hydrochloric acid 33%

Hydrocyanic acid Hydrogen peroxide Hypochlorous acid lodine Magnesium chloride Magnesium sulfate Phosphoric acid **Plating solutions** Polyaluminum Chloride (PAC) Potassium hydroxide Propylene glycol Sodium hydroxide 50% Sodium bisulfite Sodium chlorite 12% Sodium hypochlorite 12.5% Sodium sulfide Sulfuric acid (up to 50%) Tannic acid

## **FLEX-A-THANE<sup>™</sup> TUBING**

Cyclohexane **Diesel Fuel** Fatty acids Gasoline Heptane Hexane Kerosene Lard Mineral spirits Oils: ASTM reference No.1,2,3 Castor Coconut Fuel Linseed Lubricating Mineral Soap solutions Turpentine

## **FLEX-A-CHEM<sup>™</sup> TUBING**

Ferrous chloride (up to 40%) Fluoboric acid (up to 48%) Fluosilicic acid (up to 25%) Hydrofluoric acid (up to 48%) Nitric Acid (up to 71%) Phosphoric acid (up to 85%) Potassium hypochlorite (up to 70%) Sodium phosphate (up to 30%) Sulfuric acid (up to 98%) Bases Salts Ketones Alcohols: Isobutyl Alcohol Applications Ink and solvent production Battery acid filling Specialty chemical production / processing Sensitive fluid transfer

## EXFLO ORDERING GUIDELINES Fixed & Variable Speed

5.17

MAX MAX PSI bar

65 4.5 50 3.4

65 4.5

65 4.5

50 3.4

326

11.01

### **FLEX-A-PRENE® TUBING**

MODEL	1	MAX	MAX			
NUMBER	GPD	GPH	OZ/MIN	ML/MIN	PSI	bar
A1NO(*)(**)-4T	2.3	0.10	0.20	6	100	6.9
A1N1(*)(**)-4T	4.9	0.21	0.44	13	100	6.9
A1N2(*)(**)-4T	8.0	0.33	0.71	21	100	6.9
A1N1(*)(**)-6T	16.0	0.67	1.42	42	100	6.9
A1N2(*)(**)-6T	24.0	1.00	2.13	63	100	6.9
A1N3(*)(**)-6T	30.1	1.25	2.67	79	75	5.1
A1N1(*)(**)-7T	52.5	2.19	4.66	138	50	3.4
A1N3(*)(**)-7T	95.1	3.96	8.45	250	50	3.4

MAX OUTPUT @ ANY PRESSURE GPH OZ/MIN MI MODEL NUMBER ML/MIN OZ/MIN GPD A1N0(\*)(\*\*)-1T A1N3(\*)(\*\*)-1T A1N3(\*)(\*\*)-2T A1N2(\*)(\*\*)-3T A1N3(\*)(\*\*)-3T 5.7 0.24 0.51 15 25.5 1.06 2.26 67 53.2 2.22 4.73 140 992 414 8 82 261

124.0

**FLEX-A-THANE<sup>™</sup> TUBING** 

### FLEX-A-CHEM<sup>™</sup> TUBING

MODEL		MAX OUTPU	T @ ANY PRES	SURE	MAX	MAX
NUMBER	GPD	GPH	OZ/MIN	ML/MIN	PSI	bar
A1NO(*)(**)-8T	24.0	1.00	2.13	63	50	3.4
A1N1(*)(**)-8T	30.1	1.25	2.67	79	50	3.4
A1N3(*)(**)-8T	30.1	1.25	2.67	79	50	3.4

VOLTAGE OPTIONS

(\*)Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz Note: 220V/50Hz units deliver approximately 20% less output. MODEL OPTIONS

(\*\*)Replace: C=A100NC, E=A100NE, F=A100NF, V=A100NV



## FLEXFLO<sup>®</sup> A-100N PERISTALTIC Metering Pumps



## Analog Units

FLEXFLO<sup>®</sup> A-100NF - VARIABLE SPEED UNIT with Percentage Speed Control

## FLEXFLO® A-100NC ANALOG FIXED SPEED

- Precise output control to 20:1 turndown by means of a dial knob.
- Adjustable 5 second repeating interval timer (0.25 5.0 sec) results in high frequency of small injections per minute.

## FLEXFLO® A-100NF ANALOG VARIABLE SPEED

- Manual output control.
- Easy Dial knob style output percentage speed adjustment.
- Nothing to program.
- 10–100% output adjustment.
- On-Off power switch.
- Variable speed results in near continuous injection.



## **Digital Units**

#### FLEXFLO<sup>®</sup>A-100NV - VARIABLE SPEED UNIT with 4-20mA, 0-10dc, and Pulse Input Speed Control

## FLEXFLO® A-100NE DIGITAL FIXED SPEED

- Manual output control digital interval timer for 200:1 turndown ratio.
- Accepts pulse inputs for time on per one pulse or multiple pulses.
- Accepts 4-20mA & 0-10VDC signal for external interval percentage control.
  No special input wiring connectors to buy.
- Digital interval timer results in a high frequency of small injections per minute.

## FLEXFLO® A-100NV DIGITAL VARIABLE SPEED

- Manual or Automatic control.
- Accepts 4-20mA, 0-10VDC, and pulse input signals.
- 1 amp alarm output relay.
- Precise output control with digital touch-pad and LCD display.
- Easy-to-read Service and Alarm indicator icons on LCD display.
- Display motor speed or input signal values on the LCD display.
- Flow Verification Sensor (FVS) compatible.
- Variable speed results in near continuous injection.

## FLEXFLO<sup>®</sup> POLYMER PUMP Peristaltic Metering Pumps

## The all New FLEXFLO<sup>®</sup> Polymer Pump has been designed to handle polymer liquids used in Wastewater Treatment.

The FLEXFLO® peristaltic metering pump has our exclusive built in TFD+ (Tube Failure Detection Plus) system which detects oil and water based polymers, and in turn helps to eliminate costly polymer spills and clean up. Condensation and wash down procedures will not cause false triggering.

Because of the peristaltic design, the FLEXFLO® Polymer Pump has no valves that can clog and thus require maintenance. The FLEXFLO® Peristaltic Polymer Pump is also self-priming even against maximum line pressure, and won't lose prime.

## **ALL FLEXFLO® POLYMER PUMPS FEATURE**

- New TFD+ works with oil and water based polymers.
- Gentle pumping action for long chain polymers.
- Ideal for low and high viscosity fluids.
- 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.
- Durable housing of chemical resistant Valox (PBT) thermoplastic.

## A-100NFP & A-100NVP SPECIFICATIONS



FLEXFLO<sup>®</sup> A-100NVP - VARIABLE SPEED UNIT with 4-20mA, 0-10dc, and Pulse Input Speed Control

A ICONT & A ICONT STECHTOR									
Max. Flow Rate 5.17 GPH (19.56LPH)	Power cord plug type	115V/60Hz = NEMA 5/15 (USA)							
Max. Working Pressure65 psig (4.5 bar)		230V/60Hz = NEMA 5/15 (USA)	<b>A-100NFP</b>	& A.	-100N		<b>RING GU</b>	IDELINE	5
Max. Fluid Temperature130°F (54°C)		220V/50Hz = CEE 7/VII (EUROPE)							-
Ambient Temp Range		240V/50Hz = AS 3112 (Australia/New Zealand)			MAX	PUMP TUBE	PUMP TUBE	PUMP OUTPUT CO A-100NFP	A-100NVP
A-100NFP Output Adjustment Range	Injection Fitting O-ring Seals		FEED RATE mL/min	RPM	PSI (BAR)	PART NUMBER	MATERIAL	MODEL #	MODEL #
10-100% in 1% increments	Enclosure								
A-100NVP Output Adjustment Range	Dimensions	A-100NFP=6"H x 9-3/8"W x 9-1/8"D	0.8-15	14	65 (4.5)	A1-1T	Flex-A-Thane™	A1NO*F-1T-P	A1NO*V-1T-P
14 & 30 RPM with -11, -21 tubes: .5-100% (20:1 turndown)		(15.2cm x 23.8cm x 23.2cm)	1.8–35	30	65 (4.5)	A1-1T	Flex-A-Thane™	A1N1*F-1T-P	A1N1*V-1T-P
All other models:		A-100NVP=6"H x 9-1/2"W x 9-1/8"D	6.7-67	60	65 (4.5)	A1-1T	Flex-A-Thane™	A1N3*F-1T-P	A1N3*V-1T-P
Max. Viscosity		(15.2cm x 24.1cm x 23.2cm)	14.0-140	60	65 (4.5)	A1-2T	Flex-A-Thane™	A1N3*F-2T-P	A1N3*V-2T-P
Max. Suction Lift	Approx. Shipping Weight		26.1-261	45	50 (3.5)	A1-3T	Flex-A-Thane™	A1N2*F-3T-P	A1N2*V-3T-P
Duty Cycle			32.6-326	60	50 (3.5)	A1-3T	Flex-A-Thane™	A1N3*F-3T-P	A1N3*V-3T-P
Max. Solids			VOLTAGE OPTIONS						
Amperage Draw	100NVP=.350 amp max)		(*)Replace: 0=115V/6	0Hz. 1=	220V/50Hz.	2=230V/60Hz. 8:	=240V/50Hz		
230V/60Hz, 1ph (A-100NFP=.563; A	-100NVP=.173 amp max)		()		,				
220V/50Hz, 1ph (A-100NFP=.660; A	A-100NVP=.175 amp max)								
240V/50Hz, 1ph (A-100NFP=.585; A	-100NVP=.193 amp max)								

## **MICRO-FLO** FLOW VERIFICATION SYSTEM

## **ARE YOU CERTAIN THE PUMP IS ACTUALLY PUMPING**

THE MICRO-FLO FLOW VERIFICATION SENSOR is designed to be connected directly to Blue-White model A-100NV and C-100V metering pumps to verify that chemical injection has actually occurred. This innovative product provides accurate measurement and accumulated flow date. If chemical should fail to inject, the pump will stop and an alarm relay will close, allowing for remote alarm indication or initiation of a back-up injector pump. KNOW how much chemical your metering pump is dispensing.

## For Innovation, Accuracy and Dependable Service, count on Blue-White's MICRO-FLO VERIFICATION METER.

## **MICRO-FLO BENEFITS**

- Model Variations include: Sensor Only; and Panel Mount Display, which includes 6' of Cable.
- Six Digit LCD, up to Four decimal positions.
- Displays both Rate of Flow and Accumulated Flow.
- Non-volatile programming and accumulated
- flow memory. • User Selectable scale factors include:
- Flow units: Gallons; Liters; Ounces; Milliliters Time units: Minutes; Hours; Days
- Clear PVC viewing lens or opaque PVDF chemical resistant lens.
- Weather resistant Valox PBT enclosure.
- \*LCD is not recommended for direct sunlight installation.

## **MICRO-FLO SPECIFICATIONS**

Max. Working Pressure	PVC lens: 130 psig (9 bar) @ 70°F (21°C)
5	PVDF lens: 150 psig (10 bar) @ 70°F (21°C)
Max. Fluid Temperature	PVC lens, and connectors: 130°F (54°C) @ 0 PSI
·	PVDF lens, and connectors: 200°F (93°C) @ 0 PSI
Body, Paddle, Axle Material	PVDF
Connector Material	3/8" Tubing connectors: PVDF
O-ring Seals	FKM
Compression Seal to Pump	
Approx. Shipping Weight	

## **MICRO-FLO ORDERING GUIDELINES**

**MICRO-FLO SENSOR** 

FV-200-6V

P (

	MODEL NUMBER	OPERATING FLO GPD	W RANGE C-1100 ML/MIN	OPERATING FLO GPD	W RANGE A-100N ML/MIN
	FV-10*-6V	11.4 to 114	30 to 300	1 to 7	30 to 200
L	FV-20*-6V	38.0 to 380	100 to 1000	1.8 to 31.8	50 to 900
	FV-30*-6V	76.0 to 760	200 to 2000	3.5 to 63.5	100 to 1800
	FV-40*-6V	114 to 1440	300 to 3000	10 to 100	300 to 3000
	FV-50*-6V	190 to 1900	500 to 5000	17 to 170	500 to 5000
	FV-60*-6V	266 to 2660	700 to 7000	24 to 240	700 to 7000
	(*) Replace: 0 :	= PVC LENS CAP	, 1 = PVDF LENS CAP		

9

MICRO-FLO

SENSOR FS-100-3V

## **ACRYLIC VARIABLE AREA FLOWMETERS**



The F-400 SERIES of In-Line Units **F-400N** 

## **F-400N BENEFITS**

- Tough machined acrylic meter body, highly polished to a clear finish. Annealed for added strength.
- Direct reading permanent scale.
- White back reflector for easy reading.
- Sturdy adapters with high grade FKM o-ring seals.
- Standard models #316 stainless steel float guide rods. (Optional K-series hastelloy C-276).
- Standard models #316 stainless steel, PVDF, PTFE float. (Optional K-series hastelloy C-276, PVDF, PTFE).
- Acceptable in direct sunlight applications.

## **F-400N SPECIFICATIONS**

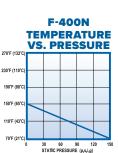
Max. Working Pressure ...... 150 psig (10.3 bar) @ 70° F (21° C) Max. Fluid Temperature .... . Polypropylene adapters: 150° F (65° C) @ 0 PSI Full scale accuracy +/- 5% Machined acrylic Meter body material .. FKM (optional EP) 0-ring seals Approximate shipping wt. .. 1/2 lb. (.23 kg) NIST certificates optional

PIPE SIZES 1/4", 3/8" and1/2" F/NPT

**FLOW RATES** 0.025 to 5 GPM 0.1 to 20 LPM

DIMENSIONS

## Height: 8-3/16" (20.8cm) Width: 1-1/4" (3.2cm)



## **F-410N**

### F-410N BENEFITS

- Tough machined acrylic meter body, highly polished to a clear finish. Annealed for added strength.
- Direct reading permanent scale.
- White back reflector for easy reading.
- Sturdy adapters with high grade FKM o-ring seals.
- Standard models #316 stainless steel float quide rods. (Optional K-series hastelloy C-276).
- Standard models #316 stainless steel or PVC float. (Optional K-series hastelloy C-276 or PVC).
- Acceptable in direct sunlight applications.

## **F-410N SPECIFICATIONS**

Max. Working Pressure 150 psig	(10.3 bar) @ 70° F (21° C)	
Max. Fluid Temperature 316 SS a		C) @ 0 PSI
PVC floa	ts:120° F (49° C) @ 0 PSI	
Full scale accuracy +/- 5%		
Meter body material Machine	ed acrylic	
O-ring seals FKM (op	tional EP)	
Approximate shipping wt 2 lb. (.9		
NIST certificates ontional	<b>F-410N</b>	

270°E (132

230'F (110

70°E (21°

FMPF

**PIPE SIZES** 3/4" and 1" F/NPT

## **FLOW RATES** 1 to 20 GPM

## 4 to 80 LPM

DIMENSIONS Height: 11" (27.9cm) Width: 1-3/4" (3.2cm)

30 60 90 STATIC PRESSURE (p.: 120

TEMPERATURE

PRESSURE



F-430N

Blue White

F-430

GPM

60

LPM

220

200

180

160

140

120

100



F-420N



## **F-420N BENEFITS**

Tough machined acrylic meter body, highly polished to a clear finish. Annealed for added strength.

MPE

- Direct reading permanent scale.
- · White back reflector for easy reading.
- Sturdy adapters with high grade FKM o-ring seals.
- Standard models #316 stainless steel float guide rods. (Optional K-series hastelloy C-276).

270

230

19

110°F (4

Acceptable in direct sunlight applications.

## **F-420N SPECIFICATIONS**

Max. Working Pressure ...... 130 psig (8.9 bar) @ 70° F (21° C) Max. Fluid Temperature ..... 130° F (54° C) @ 0 PSI Full scale accuracy +/- 5% Meter body material. . Machined acrylic 0-ring seals. . FKM (optional EP) Approximate shipping wt. .. 2 lb. (.91 kg) NIST certificates optional

## PIPE SIZES 1" F/NPT and 1-1/2" M/NPT

## FLOW RATES

5 to 50 GPM 20 to 200 LPM

DIMENSIONS

Height: 12" (30.5cm) Width: 2"(5.1cm)

F-420N TEMPERATURE						
	vs				RE	
°F (132°C)						
'F (110'C)						
0°F (88°C)						

60 90

STATIC PRESSURE (p.s.i.g)



DIMENSIONS

Width: 3" (7.6cm)

## **F-430N**

## **F-430N BENEFITS**

- Tough machined acrylic meter body, highly polished to a clear finish. Annealed for added strength
- Direct reading permanent scale.
- White back reflector for easy reading.
- Sturdy adapters with high grade FKM o-ring seals. Standard models #316 stainless steel float guide rods. (Optional K-series hastelloy C-276).

190°F (88

- Acceptable in direct sunlight applications.
- Optional Polypropylene and CPVC

## **F-430N SPECIFICATIONS**

Adapters available.

Max. Working Pressure ...... 130 psig (8.9 bar) @ 70° F (21° C) Max. Fluid Temperature ..... 130° F (54° C) @ 0 PSI Full scale accuracy . +/- 5% Meter body material . Machined acrylic 0-ring seals . FKM (optional EP) Approximate shipping wt. .. 6 lb. (2.7 kg) NIST certificates optional **PIPE SIZES** 270°E (1

### 1-1/2" and 2" F/NPT **FLOW RATES**

## Height: 14" (35.6cm)

**F-430N** TEMPERATURE **VS. PRESSURE** 230°E (110

150°F (6 110°F (43 70°F (21°

60 STATIC PRESSURE (p.s.i.g

## F-550 SERIES Machined Panel Mount Meter





## **F-550 BENEFITS**

- Durable, highly polished, one piece machined meter body. Annealed for added strength.
- #316 Stainless Steel floats and float guides.
- Sturdy adapters with FKM O-ring seals. EP O-rings optional.
- Bulkhead nuts attach directly to inside panel.
- Separate mounting screws are not required.
- Optional Adjustable Flow Control Valve (F-550A only) easy to disassemble. No special tool required, ALL FIELD REPLACEABLE.
- Acceptable in direct sunlight applications.

## **F-550 SPECIFICATIONS**

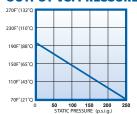
Pressure	. 250 psig (17.2 Bar) @70°F (21°C)
Temperature	. 200°F (93°C) @ 0 pressure
Full Scale Accuracy	. ± 5%
Meter Body Material	. Machined acrylic
Adapter Material	
0-rings	. FKM (Optional EP)
Float Material	. #316 SS
Approximate Shipping Wt	. 2 lbs. (.907 kg.)

## **F-550 ORDERING GUIDELINES**

#### with NON-ADJUSTABLE & ADUSTABLE Valves ADAPTER FLOAT CALIBRATION MODEL I PM MATERIAL NUMBER GPM SIZE F-55250L(\*) 0.025 to 0.250 0.1 to 1 1/4" M/NPT #316 SS F-55375L(\*) F-55375L(\*)-BRB 01 to 1 0 4 to 4 3/8" M/NPT #316 \$\$ 0.1 to 1 1/2" BARB #316 SS 0.4 to 4 3/8" M/NPT F-55376L(\*) 0.2 to 2 0.75 to 7.5 #316 SS F-55376L(\*)-BRB 0.2 to 2 0.75 to 7.5 1/2" BARB #316 SS F-55500L(\*) F-55500L(\*)-BRB 1/2" M/NPT 0.5 to 5 2 to 20 #316 SS 0.5 to 5 2 to 20 1/2" BARB #316 SS F-55750L(\*) 1 to 10 4 to 40 3/4" M/NPT #316 SS F-55005L 1 to 5 3 to 18 1" M/NPT PTFE F-550101 (\*) 1 to 10 4 to 40 1" M/NPT #316 \$\$ F-55015L(\*) 5 to 60 1" M/NPT #316 SS 1 to 15 F-55200L(\*)

#### 2 to 20 7.5 to 75 1" M/NPT #316 SS

#### E-550 **OUTPUT VS. PRESSURE**



## F-300 SERIES Machined Acrylic Flowmeters

Bulkhead Nut (Attached directly to inside panel)

1/2" BARB FITTINGS

FOR THE

F-550

SERIES

1/2" Barb Hose

## **F-300 BENEFITS**

- All horizontal mount meters are NSF 50 listed.
- No metal in the fluid.

F-550A WITH

INTEGRAL FLOW

ADJUSTMENT

VALVE

- · Horizontal or Vertical pipe installation.
- One piece machined acrylic meter body.
- Corrosion resistant internal parts.
- Red plastic float will not corrode.
- Smooth flow means no float bounce. Improved Accuracy: 1" through  $2" = \pm 5\%$  of rate, 2-1/2" • through  $8" = \pm 10\%$  of rate.
- Minimal space needed for installation.
- Easy Reading: Bold, black, permanent printing. Large distance between lines
- Use on SCH 40 and SCH 80.
- Additional Accessory: Optional flow switch can be ordered separately for alarm feedback.

## **F-300 SPECIFICATIONS**

Max. Fluid Temperature	
Accuracy	± 5% for 1", 1-1/2", 1-1/4" and 2"
	± 10% for 2-1/2", 3", 4", 6"
Meter Body Material	Acrylic
Connection Type	Saddle
Float Material	PVDF
Gaskett Material	Neoprene
Max. Pressure Drop	0 psi
Approx. Shipping Weight	1" to 4" Pipe: 1 lbs. (.454 kg.)
	6" to 8" Pipe: 2 lbs. (.907 kg.)

## **I.P.S. PIPE SIZES**

1", 1-1/4", 1-1/2", 2", 2-1/2", 3", 4", 6", 8"

**FLOW RATES** 5 to 2200 U.S. GPM

## 20 to 8328 LPM

## **F-550 NON-ADJUSTABLE DIMENSIONS**

Model Number	Α	В	С	D	E	Mount Hole	
-55250L (1/4")	7-1/4"(18.4cm)	2-1/2"(6.4cm)	11/16"(2.4cm)	5-5/8"(14.3cm)	1-1/4"(cm)	9/16"(1.4cm)	
-55375L (3/8")	8-3/8"(21.3cm)	2-3/4"(7.0cm)	1-11/32"(3.4cm)	6-1/2"(16.5cm)	1-1/2"(cm)	1-1/16"(2.7cm)	
-55376L (3/8")	8-3/8"(21.3cm)	2-3/4"(7.0cm)	1-11/32"(3.4cm)	6-1/2"(16.5cm)	1-1/2"(cm)	1-1/16"(2.7cm)	
-55500L (1/2")	8-3/8"(21.3cm)	2-3/4"(7.0cm)	1-11/32"(3.4cm)	6-1/2"(16.5cm)	1-1/2"(cm)	7/8"(2.2cm)	
-55750L (3/4")	9"(22.9cm)	3-3/4"(9.5cm)	1-1/2"(3.8cm)	6-1/2"(16.5cm)	1-3/4"(cm)	1-1/16"(2.7cm)	
-55200L (1")	10-5/8"(27.0cm)	4"(10.2cm)	1-3/4"(4.4cm)	8"(20.3cm)	2"(cm)	12-1/64"(30.5cm)	

## **F-550 ADJUSTABLE DIMENSIONS**

Model N	lumber	Α	В	C	D	E	F
F-55250	LA (1/4")	7-1/4"(18.4cm)	3-7/16"(8.7cm)	1"(2.5cm)	5-5/8"(14.3cm)	2-7/16"(6.2cm)	1-11/32"(3.4cm)
F-55375I	LA (3/8")	8-3/8"(21.3cm)	4-1/2"(11.4cm)	1-11/32"(3.4cm)	6-1/2"(16.5cm)	3-1/4"(8.3cm)	1-3/4"(4.4cm)
F-55376	A (3/8")	8-3/8"(21.3cm)	4-1/2"(11.4cm)	1-11/32"(3.4cm)	6-1/2"(16.5cm)	3-1/4"(8.3cm)	1-3/4"(4.4cm)
F-55500	LA (1/2")	8-3/8"(21.3cm)	4-1/2"(11.4cm)	1-11/32"(3.4cm)	6-1/2"(16.5cm)	3-1/4"(8.3cm)	1-3/4"(4.4cm)
F-55750	LA (3/4")	9"(22.9cm)	5-1/2"(14.0cm)	1-1/2"(3.8cm)	6-1/2"(16.5cm)	3-1/4"(8.3cm)	1-5/16"(3.3cm)
F-55200	LA (1")	10-5/8"(27.0cm)	5-1/4"(13.3cm)	1-3/4"(4.4cm)	8"(20.3cm)	3-1/2"(8.9cm)	1-7/16"(3.7cm)
Net M		. n:	41	. M. J. M A.P.	under hele		

Note: Mount Hole Dimensions are the same as the Model Non-Adjustable

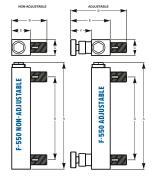
#### PIPE SIZES

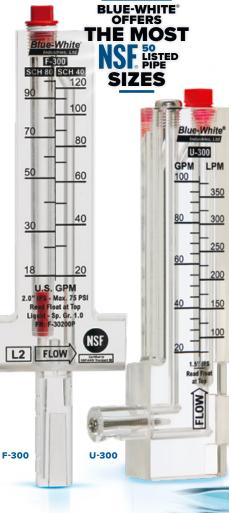
1/4", 3/8, 1/2", 3/4" and 1" M/NPT. 1/2" Barb

## **FLOW RATES**

0.025 to 20 GPM 0.1 to 75 LPM

MODEL OPTIONS (\*) To order with Flow Adjustment Valve add the letter "A" after the "L" in the model number. Model #F-55005L is not available with Adjustment Valve. For optional hastelloy internals, add letter "K" to model number.





## **POLYSULFONE VARIABLE AREA FLOWMETERS**

## F-440 SERIES Compact Size. Big Performance.

### **F-440 BENEFITS**

- Adjustable Flow Indicating Marker.
- Enginneered with large half union connections. •
- Oversized o-rings for Superior seal.
- All wetted parts are PVDF or Polypropylene. Tough Polysulfone meter body resists high
- temperatures and pressures.\* Compact size for tight installation spaces.
- 2" scale length (approximate).
- Direct reading permanent scale.
- In-line or Panel mount configurations available.
- Optional Integral Flow Adjustment Valve. •
- Standard models have #316 Stainless Steel. PTFE or PVC float. (Optional K-series Hastelloy
- C-276 or PVC).
- Not recommended for direct sunlight.
- Solarmeter<sup>®</sup> units available with in-line Brass adapters. Contact factory for more information.

## **F-440 SPECIFICATIONS**

Blue-White

F-450 GPN

F-45750L-12 IN-LINE UNIT

LPM

36

32

28

24

Max. Working Pressure ...... 175 psig (10.3 bar) @ 70°F (21°C)

Max. Fluid Temperature
Standard Models
Solarmeter <sup>®</sup> Models 240°F (115°C) @ 0 PSI
Full Scale Accuracy+/- 4%
Meter Body Material Polysulfone
Adapter Material Polysulfone (optional Brass)
O-Ring Material FKM (optional EP)
Approx. Shipping Weight 1/2lb. (.23 kg)

## **F-440 ORDERING GUIDELINES**

STANDARD LIQUID MODELS						
MODEL	Pipe Size	DUAL SCA	LE RANGE	Float		
NUMBER	M/NPT	GPM	LPM	Material		
F-44250(*)-6	3/8"	.025 to .250	0.1 to 1.0	PVDF		
F-44250(*)-8	1/2"	.025 to .250	0.1 to 1.0	PVDF		
F-44375(*)-6	3/8"	0.1 to 1.0	0.4 to 4.0	316 SS		
F-44375(*)-8	1/2"	0.1 to 1.0	0.4 to 4.0	316 SS		
F-44376(*)-6	3/8"	0.2 to 2.0	0.8 to 8.0	316 SS		
F-44376(*)-8	1/2"	0.2 to 2.0	0.8 to 8.0	316 SS		
F-44500(*)-6	3/8"	0.5 to 5.0	1.8 to 18.0	316 SS		
F-44500(*)-8	1/2"	0.5 to 5.0	1.8 to 18.0	316 SS		
F-44750(*)-8	1/2"	1.0 to 10.0	5.0 to 37.5	316 SS		
F-44750(*)-12	3/4"	1.0 to 10.0	5.0 to 37.5	316 SS		
		GPH	LPH			
F-44330(*)-6	3/8"	3.0 to 30.0	10 to 110	PTFE		
F-44330(*)-8	1/2"	3.0 to 30.0	10 to 110	PTFE		
F-44560(*)-6	3/8"	5.0 to 60.0	20 to 220	316 SS		
F-44560(*)-8	1/2"	5.0 to 60.0	20 to 220	316 SS		
<b>MODEL</b> Variatio	MODEL Variations					
*L = In-Line Model is listed *LK = In-Line K-Series - specially						

\*LE = Panel Mount Model \*LA = Adjustable Model

(highly corrosive) \*LKE = Panel Mount K-Series \*LKA = Adjustable K-Series

equipped units for liquid

PIPE SIZES Standard Models: 3/8" F/NPT; 1/2", 3/4" M/NPT Solarmeter® Models: 3/8" F/NPT, 1/2" or 3/4" M/NPT, and 1/2" or 3/4" SWEAT in-line fittings

### **FLOW RATES**

0.025 to 10 U.S. GPM 0.1 to 37.5 LPM 3 to 60 GPH 10 to 220 LPH



18

- 15

- 12

## F-450N SERIES Performance and Versatility

#### **F-450N BENEFITS**

.....

36

32

28

24

F-450 LPM

-45750LE-12 PANEL MOUNT

- Adjustable Flow Indicating Marker.
- Enginneered with large half union connections.
- Oversized o-rings for Superior seal. •
- All wetted parts are PVDF or Polypropylene. •
- Tough Polysulfone meter body resists high temperatures and pressures.\*
- 4" approximate scale length for easy reading.
- Direct reading permanent scale.
- In-line or Panel mount configurations available.
- Optional integral flow adjustment valve.
- Standard models have #316 Stainless Steel or PTFE float. (Optional K-series Hastelloy C-276 or PTFE).
- Not recommended for direct sunlight.
- Solarmeter<sup>®</sup> units available with in-line Brass adapters. Contact factory for additional information.

### **F-450N SPECIFICATIONS**

Max. Working Pressure Max. Fluid Temperature	. 175 psig (10.3 bar) @ 70°F (21°C)
Standard Models	. 212°F (100°C) @ 0 PSI
Solarmeter® Models	. 240°F (115°C) @ 0 PSI
Full Scale Accuracy	. +/- 4%
Meter Body Material	. Polysulfone
Adapter Material	Polysulfone (optional Brass)
0-Ring Material	FKM (Optional EP)
Max. Pressure Drop	
Approx. Shipping Weight	

## **F-450N ORDERING GUIDELINES**

MODEL	Pipe	DUAL SCA	ILE RANGE	Float
NUMBER	Size	GPM	LPM	Materia
F-45375(*)-6	3/8" F/NPT	.1 to 1	.4 to 4	PTFE
F-45375(*)-8	1/2" M/NPT	.1 to 1	.4 to 4	PTFE
F-45376(*)-6	3/8" F/NPT	.2 to 2	1 to 7.5	316 SS
F-45376(*)-8	1/2" M/NPT	.2 to 2	1 to 7.5	316 SS
F-45500(*)-6	3/8" F/NPT	.5 to 5	2 to 20	316 SS
F-45500(*)-8	1/2" M/NPT	.5 to 5	2 to 20	316 SS
F-45500(*)-12	3/4" M/NPT	.5 to 5	2 to 20	316 SS
F-45750(*)-12	3/4" M/NPT	1 to 10	4 to 40	316 SS

\*L = In-Line Model is listed

\*IF = Panel Mount Model

\*LA = Adjustable Model

\*LK = In-Line K-Series - specially equipped units for liquid (highly corrosive)

\*LKE = Panel Mount K-Series \*LKA = Adjustable K-Series

### **PIPE SIZES**

Standard Models: 3/8" F/NPT: 1/2", 3/4" M/NPT Solarmeter® Models: 1/2". 3/4" M/NPT: 1/2". 3/4" SWEAT in-line only.

#### **FLOW RATES**

0.1 to 10 GPM 4 to 40 LPM



## F-451 SERIES Quality. Versatility.

## **F-451 BENEFITS**

- A Heat and Chemical resistant meter body of injection molded Polysulfone.\*
- Floats are #316 S.S. or PTFE, depending on calibration. Permanent, easy to read screen printed scales.
- 1" F/NPT Polysulfone adapters, or 1-1/2" PVC adapters (depending on model ordered).
- FKM O-ring Seals, Optional EP.
- Accuracy  $\pm$  3%.

F-451004LHN-24

- May be ordered with 90° elbow adapters.
- Available with 1" brass sweat or brass F/NPT adapters.
- Available with Polycarbonate Protective Shield.
- Not recommended for direct sunlight applications.
- Optional K Series for corrosive applications. •

#### E-451 OPDEDING GUIDELINES **PIPE SIZES**

F-451 UK	DEKIN	g guil	JELINES	PIPE SIZ
MODEL NUMBER	CALIBR GPM	ATION	ADAPTER SIZE	1", 1-1/2" F/NPT Brass: 1" F/NPT (
F-451006LHN F-451001LHN F-451002LHN F-451003LHN F-451004LHN	0.5 to 6 1.0 to 10 2.0 to 20 3.0 to 30 4.0 to 40	to 22 4 to 40 7.5 to 75 12 to 115 15 to 155	1" F/NPT 1" F/NPT 1" F/NPT 1" F/NPT 1" F/NPT	FLOW R 0.5 to 40 GPM 2 to 155 LPM DIMENS
1-1/2" F/NPT PVC Model Number	Adapters CALIBR GPM	ATION LPM	ADAPTER SIZE	Height: 14-1/2" ( Width: 3-5/16" (8
F-451006LHN-24 F-451001LHN-24 F-451002LHN-24 F-451003LHN-24	0.5 to 6 1.0 to 10 2.0 to 20 3.0 to 30	to 22 4 to 40 7.5 to 75 12 to 115	1-1/2" F/NPT 1-1/2" F/NPT 1-1/2" F/NPT 1-1/2" F/NPT	

15 to 155

1-1/2" F/NPT

4.0 to 40

s: 1" F/NPT or Sweat **OW RATES** o 40 GPM 155 LPM MENSIONS ht: 14-1/2" (36.8cm) h: 3-5/16" (8.4cm)

### **F-451 SPECIFICATIONS**

Max. Working Pressure	. 150 psi (10 Bar) @ 70°F (21°C)
Max. Fluid Temperature	Polysulfone adapters: 212°F
	(100°C) @ 0 PSI.
	PVC adapters:130°F (54°C) @ 0 PSI
Full Scale Accuracy	
Meter Body Material	
Adapter Material	
O-Rings	
Float Material	. #316 SS, Hastelloy C or PTFE,
	depending on calibration.
Max. Pressure Drop	
Approx. Shipping Weight	. 3 lbs. (1.36 kg.)

Blue-White F-452N GPM

LPM 220

200

180

160

140

120

100

80

ad P

F-452N



#### **F-452N BENEFITS**

- One piece Polysulfone meter body resists high temperatures • and pressures.\*
- 316 Stainless Steel or Hastelloy rod guided float.
- Direct reading permanent scale.
- Adapters and unions engineered for maximum protection from misalignment and vibration.
- Optional Polycarbonate Protective Shield.
- Not recommended for direct sunlight.
- Optional K Series for corrosive applications.

#### **F-452N SPECIFICATIONS**

Max. Working Pressure 150 psig (10.3 bar) @ 70°F (21°C) Max. Fluid Temperature 212°F (100°C) @ 0 PSI	MODEL NUMBER	DUAL SC/ GPM	ALE RANGE LPM	ADAPTER SIZE
Full Scale Accuracy+/- 2% Meter Body Material	F-452020LHN F-452060LHN F-452080LHN F-452100LHN F-452130LHN F-452175LHN	2 to 20 6 to 60 8 to 80 6 to 100 20 to 130 25 to 175	8 to 78 30 to 230 40 to 300 20 to 380 80 to 500 100 to 675	2" F/NPT 2" F/NPT 2" F/NPT 2" F/NPT 2" F/NPT 2" F/NPT 2" F/NPT
Approx. Shipping Weight 5 lb. (2.27 kg)				

**F-452 ORDERING GUIDELINES** 

#### **PIPE SIZES** DIMENSIONS

2" F/NPT

Height: 18-7/8" (47.9cm) Width: 4-5/8" (11.7cm) **FLOW RATES** 2 to 175 GPM 8 to 675 LPM

## F-460 & F-461 SERIES For Ultra Pure & Corrosive Environments

## **F-460 & F-461 BENEFITS**

- Polysulfone meter body with precisely engineered float guide ribs.
- No metal in the fluid path.
- Direct reading permanent scale.
- Ideal for corrosive environments\* such as Deionized Water or other applications where an all plastic meter is desirable.
- Not recommended for direct sunlight.

## F-460 & F-461 SPECIFICATIONS

Max. Working Pressure ...... 150 psig (10.3 bar) @ 70°F (21°C) Max. Fluid Temperature ..... PVDF adapters: 210°F (98°C) @ 0 PSI, PVC adapters:130°F (54°C) @ 0 PSI .. +/- 2-1/2% Full Scale Accuracy ...

1" F/NPT and 1" Socket Fusion

**F-461 FLOW RATES** 

- Meter Body Material Polysulfone
- Float Material .... .. PTFE

0-ring Seals.... FKM

Max. Pressure Drop 2 psi Approx. Shipping Weight .... F-460 = 1 lb. (.45 kg), F-461 = 3 lb. (1.4 kg)

#### **F-460 PIPE SIZES F-461 PIPE SIZES**

1/2" and 3/4" F/NPT 1/2" and 3/4" Socket Fusion

**F-460 FLOW RATES** 0.1 to 5.0 U.S. GPM

0.4 to 20 LPM **F-460 DIMENSIONS** Height: 10" (25.4cm) Width: 1-3/4" (4.4cm)

4 to 130 LPM **F-461 DIMENSIONS** Height: 15" Width: 2-3/4"

1 to 35 GPM

## **Butt Fusion &** Socket Fusion Fittings

AVAILABLE FOR F-460, F-461, AND F-462 Polypropylene or PVDF Butt Fusion & Socket Fusion Fittings for ULTRA PURE APPLICATIONS

## F-462 WITH RIB GUIDED FLOAT **High Capacity. Top Performance.**

## **F-462 BENEFITS**

F-461

Blue-White

F-461

70

65

60

55

50

40

3

e-White

11

F-460

F-460

GPM

18

16

14

- Polysulfone meter body with precisely engineered float guide ribs.
- No metal in the fluid path.
- Direct reading permanent scale.
- Ideal for corrosive environments\* such as Deionized Water or other applications where an all plastic meter is desirable.
- · Not recommended for direct sunlight.

## **F-462 SPECIFICATIONS**

Max. Working Pressure	
	@ 70°F (21°C)
Max. Fluid Temperature	
Full Scale Accuracy	
Meter Body Material	. Polysulfone
Float Material	PTFE
0-ring Seals	. FKM (Optional EP)
Max. Pressure Drop	2 psi
Approx. Shipping Weight	. 5 lb. (2.27 kg)

#### **PIPE SIZES** 2" F/NPT, 2" Socket Fusion,

63mm Butt Fusion

## 2 to 80 GPM 8 to 300 LPM

DIMENSIONS Height: 18-7/8" (47.9cm) Width: 4-5/8" (11.7cm)

**FLOW RATES** 

### **F-462 ORDERING GUIDELINES**

MODEL	Pipe	DUAL SC	ALE RANGE	Adapter	Float
NUMBER	Size	GPM	LPM	Material	Materia
F-462200LX-32H	2" F/NPT	2 to 20	8 to 80	Polysulfone	PTFE
F-462500LX-32H	2" F/NPT	5 to 50	20 to 200	Polysulfone	PTFE
F-462800LX-32H	2" F/NPT	8 to 80	30 to 300	Polysulfone	PTFE

MODEL	Pipe	DUAL SC	ALE RANGE	Adapter	Float
NUMBER	Size	GPM	LPM	Material	Material
F-462200LX-33G	2" S.F.	2 to 20	8 to 80	Polypropylene	PTFE
F-462500LX-33G	2" S.F.	5 to 50	20 to 200	Polypropylene	PTFE
F-462800LX-33G	2" S.F.	8 to 80	30 to 300	Polypropylene	PTFE
F-462200LX-33K	2" S.F.	2 to 20	8 to 80	PVDF	PTFE
F-462500LX-33K	2" S.F.	5 to 50	20 to 200	PVDF	PTFE
F-462800LX-33K	2" S.F.	8 to 80	30 to 300	PVDF	PTFE

## STANDARD F-462 LIQUID MODELS with 63mm Butt Fusion Adapters

MODEL	Pipe		ALE RANGE	Adapter	Float
NUMBER	Size	GPM	LPM	Material	Material
F-462200LX-34G	63mm B.F.	2 to 20	8 to 80	Polypropylene	PTFE
F-462500LX-34G	63mm B.F.	5 to 50	20 to 200	Polypropylene	PTFE
F-462800LX-34G	63mm B.F.	8 to 80	30 to 300	Polypropylene	PTFE
F-462200LX-34K	63mm B.F.	2 to 20	8 to 80	PVDF	PTFE
F-462500LX-34K	63mm B.F.	5 to 50	20 to 200	PVDF	PTFE
F-462800LX-34K	63mm B.F.	8 to 80	30 to 300	PVDF	PTFE

#### MODEL Variations

Polycarbonate shield = add the letter "C" to the end of the model number. PVC Union Nuts = replace "X" with "P'

## F-460 & F-461 ORDERING GUIDELINES

STANDARD F-460 LIQUID MODELS with F/NPT Adapters

MODEL	Pipe	DUAL SCA	LE RANGE
IUMBER	Size	GPM	LPM
-46010LX-08(*)	1/2"	0.1 to 1.2	0.4 to 4.4
-46010LX-12(*)	3/4"	0.1 to 1.2	0.4 to 4.4
-46020LX-08(*)	1/2"	0.2 to 2.0	0.8 to 8.0
-46020LX-12(*)	3/4"	0.2 to 2.0	0.8 to 8.0
-46030LX-08(*)	1/2"	0.3 to 3.0	1.0 to 11
-46030LX-12(*)	3/4"	0.3 to 3.0	1.0 to 11
-46050LX-08(*)	1/2"	0.5 to 5.0	2.0 to 20
-46050LX-12(*)	3/4"	0.5 to 5.0	2.0 to 20

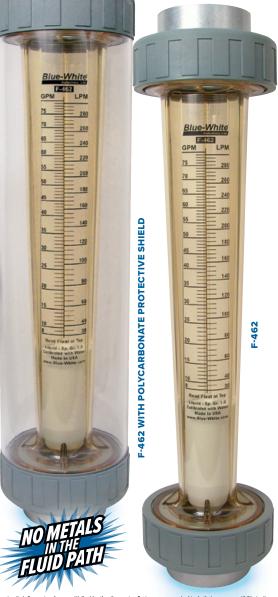
## STANDARD F-461 LIQUID MODELS with F/NPT Adapters

MODEL	Pipe	DUAL SC	ALE RANGE
NUMBER	Size	GPM	LPM
F-461100LX-16(*)	1"	1 to 10	4 to 40
F-461200LX-16(*)	1"	2 to 20	5 to 75
F-461300LX-16(*)	1"	3 to 35	12 to 130
<b>MODEL</b> Variations			

\*P= PVC Adapter

> \*K = PVDF Adapter PVC Union Nuts = replace "X" with "P"

Contact factory for Socket Fusion Models.



\* The factory does not guarantee their flowmeters for use with liquids other than water. Customers are required to do their own compatibility testing.

## **DIGIMETER** PADDLEWHEEL FLOWMETERS

## THE BW DIGI-METER® IS THE METER OF CHOICE WHEN YOUR APPLICATION REQUIRES AN INNOVATIVE, ACCURATE AND VERSATILE DIGITAL FLOWMETER.

## BUDIGIMETER F-1000 Paddlewheel Flowmeter

## BLUE-WHITE'S CAREFULLY ENGINEERED BW DIGI-METER® F-1000 SERIES INCLUDE PREMIER FEATURES AND PROVIDE OUTSTANDING PERFORMANCE.

Three versions of the BW DIGI-METER® F-1000 are offered. The F-1000RB Unit is a rate meter only; the F-1000TB Unit is a flow totalizer; and the F-1000RT Unit is both a Rate Meter and Flow Totalizer. BW DIGI-METERS are available with a number of configuration and mounting style options. If you don't see the unit that meets your requirements here, please contact our courteous and knowledgeable staff for assistance.

## **F-1000 BENEFITS**

- Easy to read six digit LCD, up to four decimal positions.
- Tamper proof.
- Battery operated (2 AAA batteries included).
- Three model variations:
  - **RB** = RATE ONLY
  - TB = TOTAL ONLY
  - RT = RATE & TOTALIZER
- Total reset function can be disabled.
- Display update time: Rate 1.5 sec., Total 0.5 sec.
- Factory calibrated nothing to program.
- Custom calibration units available. Contact the factory.
- Weather resistant ABS enclosure. NEMA 4X
- Calibration Units: GPM, LPM, M3/H, oz/min, GPH,LPH.
- LCD is not recommended for direct sunlight applications.

### F-1000 SPECIFICATIONS WITH SADDLE MOUNT BODY

	300 psig (20 bar) @ 70° F (21° C) 200° F (93° C) @ 0 PSI (all PVDF saddle fittings)
max. I ulu lemperature	140° F (60° C) @ 0 PSI (all PVC saddle fittings)
Note: Temperature rating of F-10	100 only. Actual pipe rating may vary.
Full scale accuracy	
	PVDF (1-1/2", 2", 3", 50mm, 63mm, 90mm sizes)
	PVC (all other sizes)
Sensor/Paddle/Axle material	PVDF
0-ring seals	FKM (Optional EP)
Max. pressure drop	0 psi (no significant drop)
Approximate shipping wt	2 lb. (.91 kg)

### WITH SOLVENT WELD OR STAINLESS STEEL TEE BODY

Max. Working Pressure	
	300 psig (20 bar) @ 70° F (21° C)
PVC Tee fittings	200 psig (13.8 bar) @ 70° F (21° C)
Max. Fluid Temperature	
316 SS Tee fittings	200° F (93° C) @ 0 PSI
PVC Tee fittings	140° F (60° C) @ 0 PSI
Full scale accuracy	+/- 2%
Tee material options	316 Stainless Steel, PVC
Body, Paddle, Axle material	PVDF
0-ring seals	FKM (Optional EP)
Max. pressure drop	0 psi (no significant drop)
Approximate shipping wt	

### WITH MOLDED IN-LINE BODY

	300 psig (20 bar) @ 70° F (21° C)
Max. Fluid Temperature	200° F (93° C) @ 0 PSI
Full scale accuracy	+/- 2%
Meter body material	Polysulfone
Sensor/Paddle/Axle material	PVDF
0-ring seals	FKM (Optional EP)
Max. pressure drop	8 psi (varies per model)
Approximate shipping wt	2 lb. (.91 kg)

BLUE-WHITE® INDUSTRIES

#### BW DIGI-METER® F-1000 WITH SADDLE MOUNT PIPE SIZES 1-1/2", 2", 2-1/2", 3", 4", 6", 8", 10", 12"

BLUE-WHITE<sup>®</sup> INDUSTRIES

GALLONS PER MINUTE

Rate - Totalizer

11.11 11

E-1000-RT

GALLONS PER MINUTE

BW DIGI-METER® F-1000 WITH SOLVENT TEE BODY PIPE SIZES 1".1-1/2". 2".3"

> BW DIGI-METER® F-1000 WITH MOLDED IN-LINE BODY PIPE SIZES 1/4", 3/8", 1/2", 3/4", 1", 2" M/NPT

## BUDIGIMETER F-2000 Paddlewheel Flowmeter

## THE THOUGHTFULLY ENGINEERED BW DIGI-METER® F-2000 COMBINE INNOVATIVE FEATURES AND BENEFITS, AND THE FINEST MATERIALS OF CONSTRUCTION TO PROVIDE AN ACCURATE AND VERSATILE DIGITAL FLOWMETER.

If you don't see the unit that matches your requirements listed here, please contact our courteous and knowledgeable staff for assistance.

## FOUR MODEL VARIATIONS

- **RT** = Rate and Totalizer. Transformer or battery operated.
- AO = 4-20mA, 0-10 VDC analog output, flow rate & totalizer. Transformer operated.
- **PC** = Batch processing, flow rate alarm, proportional chemical metering, flow rate and totalizer. Transformer operated.
- **AP** = Analog output, batch processing, flow rate alarm, proportional chemical metering, flow rate and totalizer. Transformer operated.

## F-2000 BENEFITS

- Easy to read 8 digit LCD, up to 4 decimal positions.
- Flow rate and Total flow display.
- AC/DC transformer or battery operated (RT models only). 4 AA batteries.
- Factory programmed with calibration certificate.
- Field programmable via front panel touch pad.
- Front panel security lockout.
- Total reset function can be disabled.
- Weather resistant ABS enclosure. NEMA 4X. Note: LCD is not recommended for direct sunlight applications.
- Panel mounting option available.
- Custom calibration units available. Contact the factory.

## **F-2000 SPECIFICATIONS**

## WITH SADDLE MOUNT BODY

Max. Working Pressure	. 300 psig (20 bar) @ 70°F (21°C)
Max. Fluid Temperature	. 200°F (93°C) @ 0 PSI
	(all PVDF saddle fittings)
	. 140°F (60°C) @ 0 PSI
	(all PVC saddle fittings)
	000 only. Actual pipe rating may vary.
Full Scale Accuracy	.+/- 1%
Sensor/Paddle/Axle Material	. PVDF
O-ring Seals	. FKM
Max. Pressure Drop	. O psi (no significant pressure drop)
Approx. Shipping Weight	. 4lb. (1.8 kg)

### WITH SOLVENT WELD OR STAINLESS STEEL TEE BODY

Max. Working Pressure	
	300 psig (20 bar) @ 70° F (21° C)
PVC Tee fittings	200 psig (13.8 bar) @ 70° F (21° C)
Max. Fluid Temperature	
316 SS Tee fittings	200° F (93° C) @ 0 PSI
PVC Tee fittings	140° F (60° C) @ 0 PSI
Full scale accuracy	+/- 1%
Tee material options	316 Stainless Steel, PVC
Body, Paddle, Axle material	PVDF
0-ring seals	FKM (Optional EP)
Max. pressure drop	0 psi (no significant drop)
Approximate shipping wt	4 lb. (.91 kg)

## WITH MOLDED IN-LINE BODY

Max. Working Pressure	300 psig (20 bar) @ 70°F (21°C)
Max. Fluid Temperature	200°F (93°C) @ 0 PSI
Full Scale Accuracy	
Sensor/Paddle/Axle Material	PVDF
0-ring Seals	FKM
Max. Pressure Drop	8 psi (varies per model)
Approx. Shipping Weight	4lb. (1.8 kg)

BW DIGI-METER® F-2000 WITH MOLDED IN-LINE BODY PIPE SIZES 3/8", 1/2", 3/4", 1", 1-1/2", 2"

BW DIGI-METER® F-2000 WITH SOLVENT TEE BODY PIPE SIZES 1", 1-1/2", 2", 3" BW DIGIMETER® F-2000 WITH SADDLE MOUNT PIPE SIZES 1-1/2", 2", 2-1/2", 3", 4", 6", 8", 10", 12"



## BUDIGIMETER F-2000 Flow Monitoring System

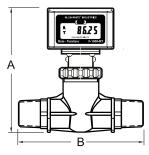
BW DIGI-METER® F-2000 SERIES ELECTRONIC INSERTION STYLE FLOWMETERS, ARE WELL SUITED FOR MONITORING FLOW IN MUNICIPAL WATER AND WASTEWATER APPLICATIONS.

The clamp on saddle fitting and insertion sensor is quickly installed on IPS (ASTM-D-1785) pipe sizes from 1-1/2" through 12" and metric (DIN 8062) pipe sizes from 50mm through 315mm. The electronic display and communication enclosure can be mounted directly to the sensor, or remotely mounted to a pipe or panel.

Standard F-2000 models display flow rate and accumulated total flow, and include an NPN open collector output for communication with data loggers, SCADA systems, and other external devices.







#### F-1000 with MOLDED In-Line Body PIPE SIZE A B

 3/8" MPT
 5-3/8" (13.7cm)
 4-3/4" (12.1cm)

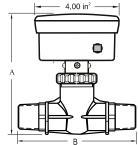
 1/2" MPT
 5-3/8" (13.7cm)
 5-1/8" (13.7cm)

 3/4" MPT
 5-3/8" (13.7cm)
 5-1/4" (13.3cm)

 1" MPT
 5-3/8" (13.7cm)
 5-5/8" (14.3cm)

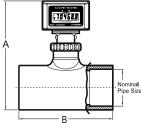
 1-1/2" MPT
 6-1/8" (15.6cm)
 6-1/2" (16.5cm)

 2" MPT
 6-3/8" (16.2cm)
 6-3/4" (17.1cm)

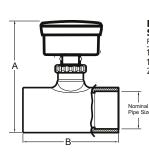


### F-2000 with MOLDED In-Line Body

PIPE SIZE 5-7/8"(14.9cm) 4-3/4"(12.1cm) 3/8" MPT 1/2" MPT 5-7/8"(14.9cm) 5-1/8"(13.0cm) 3/4" MPT 6"(15.2cm) 5-1/4"(13.3cm) 1" MPT 6"(15.2cm) 5-5/8"(14.3cm) 1-1/2" MPT 6-1/2"(16.5cm) 7"(17.8cm) 2" MPT 6-3/4" (17.1cm) 7"(17.8cm)

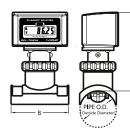


F-1000 with SOLVENT TEE Body				
PIPE SIZE	Α	В		
1"	6"(15.2cm)	4"(10.2cm)		
1-1/2"	6-5/8"(16.8cm)	4-1/2"(11.4cm)		
2"	7-1/8"(18.1cm)	4-3/4"(12.1cm)		
3"	8"(20.3cm)	5-1/2"(14.0cm)		



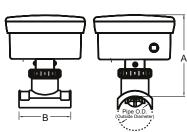
## F-2000 with SOLVENT TEE Body PIPE SIZE A B 1" 6"(15.2cm) 4"(10.2cm) 1-1/2" 6-5/8"(16.8cm) 4-1/2"(11.4cm)

" 6-5/8"(16.8cm) 4-1/2"(11.4cm) 7-1/8"(18.1cm) 4-3/4"(12.1cm)



	SADDLE MOUNT Body				
PIPE SIZE (m	m) A	В			
150(050)	4-5/16"(11.0cm)	3-3/16"(8.1cm			
200(063)	4-5/16"(11.0cm)	3-3/16"(8.1cm			
300(090)	4-5/16"(11.0cm)	3-3/16"(8.1cm			
400(110)	4-5/16"(11.0cm)	3-3/16"(8.1cm			
600(160)	4-1/4"(10.8cm)	3-3/16"(8.1cm			
800(200)	4-1/4"(10.8cm)	3-3/16"(8.1cm			
1000(250)		4-1/2"(11.4cm			
1200(315)	4-1/4"(10.8cm)	4-1/2"(11.4cm			

F 4000 ................



F-2000 with SADDLE MOUNT Body				
PIPE SIZE (mi	n) A	B		
150(050)	4-1/2"(11.4cm)	3-3/16"(8.1cm)		
200(063)	4-1/2"(11.4cm)	3-3/16"(8.1cm)		
300(090)	4-1/2"(11.4cm)	3-3/16"(8.1cm)		
400(110)	4-1/2"(11.4cm)	3-3/16"(8.1cm)		
600(160)	4-3/8"(11.1cm)	3-3/16"(8.1cm)		
800(200)	4-3/8"(11.1cm)	3-3/16"(8.1cm)		
1000(250)	4-3/8"(11.1cm)	4-1/2"(11.4cm)		
1200(315)	4-1/2"(11.4cm)	4-1/2"(11.4cm)		



## BUDIGIMETER F-2000 with Digital Hall Effect Output Signal

## F-2000 BENEFITS

- TTL/CMOS compatible, current sinking output signal.
- Optional AC sine wave output sensor available.
- One mile signal range without boosters.
- NEMA 4X rated.

## **F-2000 SPECIFICATIONS**

Max. Working Pressure ...... 300 psig (20 bar) @ 70°F (21°C) Max. Fluid Temperature ..... 200°F (93°C) @ 0 PSI (Polypro and PVDF saddles) 140°F (60°C) @ 0 PSI (PVC saddles and TEE fittings) Note: Temperatures rating of F-2000 only. Actual pipe rating may vary.



**MOLDED FITTINGS** 

TEE EITTINGS

## BUIGIMETER F-1000 & F-2000 Installation Options

## BLUE-WHITE F-1000 AND F-2000

**FLOWMETER** model numbers include a pipe fitting as part of the complete model number. Although it is possible to purchase the pipe fittings separately, it is not necessary.



## SADDLE FEATURES

- 1-1/2" thru 3" (50mm thru 90mm) injection molded PVDF.
- 4" thru 12" (110mm thru 315mm) machined from
- solid PVC sheet stock.
- Installs on existing pipe no other fittings are required.
- No added pressure drop to system.
- Ships with metal clamps to secure fitting to pipe.

## SADDLE SPECIFICATIONS

## **I.P.S. PIPE SIZES:**

1-1/2", 2", 2-1/2", 3", 4", 6", 8", 10", 12"

### **METRIC PIPE SIZES:**

50, 63, 90, 110, 160, 200, 250, 315MM

## Blue-White Industries, Ltd.

5300 BUSINESS DRIVE HUNTINGTON BEACH, CA 92649 USA Phone: 714-893-8529 Fax: 714-894-9492 E-mail: sales@blue-white.com www.blue-white.com

#### **MOLDED IN-LINE**

- One piece injection molded construction.
- Male pipe thread In-line installation.
- Polypropylene fittings for standard applications.
- PVDF material for highly corrosive applications.

## **MOLDED IN-LINE SPECIFICATIONS**

## PIPE SIZES:

3/8", 1/2", 3/4",1", 1-1/2", 2" M/NPT

## **TEE FEATURES**

- Easy to install.
- No added
- pressure drop to system.

## **TEE SPECIFICATIONS**

Max. PSI

- Max. Temp 316 SS TEE ...... 200° F (93° C) @ 0 PSI

## PIPE SIZES:

1", 1-1/2", 2", 3"

## AUTHORIZED REPRESENTATIVE