

F-2000

Digital Paddlewheel Flow Meter



Features

- > 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
- > Front panel security lockout

NEMA 4X

Highlights

Flow range

.4 - 200 GPM
1 to 27,000 LPM

Pressures

300 PSI
(20 bar)

Pressure drop

8 PSI
(varies per model)

Full Scale Accuracy

+/- 1%

Power supply

Battery operated

Warranty

1 Year

Available Models



Molded Fittings



Saddle Mount
Fittings



PVC Fittings

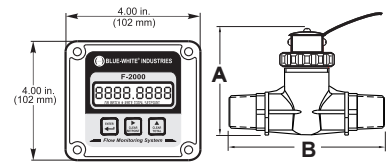
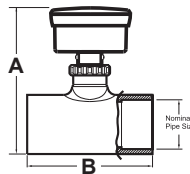
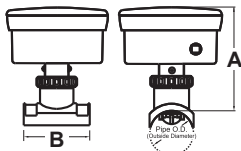


Stainless Steel
Tee Fittings



Maximum Working Pressure	300 PSI (20 bar) @ 70 °F (21 °C)
	200 °F (93 °C) @ 0 PSI (PVDF saddles and SS Tee fittings)
Maximum Fluid Temperature	140 °F (60 °C) @ 0 PSI (PVC saddles and PVC Tee fittings)
	NOTE: Temperature rating of F-2000 only. Actual pipe rating may vary.
Maximum Ambient Temperature	14 °F to 110 °F/ -10 °C to 43 °C
Maximum Pressure Drop	8 PSI (varies per model)
Full scale Accuracy	+/- 1%
Power Requirement	15 VDC Nominal (15 - 24 VDC Absolute)
Model RT units only	4 AA batteries or 15 - 24 VDC plug-in transformer
All units	15 - 24 VDC (plug-in transformer supplied)
Signal Distance	AC sine wave sensor = 200 ft(60 m) Optional Hall Effect sensor = 1 mile(1.6 km)
Signal Cable	3 conductor shielded. Included 25 ft(7.6 m)
Approximate Shipping Weight	4 lb. (1.8 kg)
Enclosure	NEMA 4X (IP56)
RoHS Compliant	Yes

Dimensions



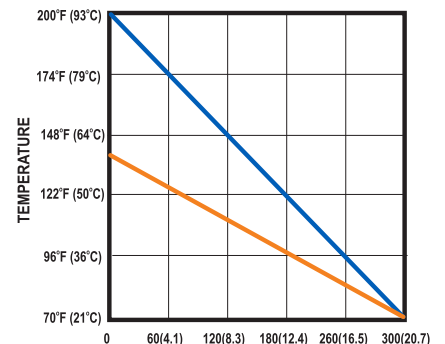
Saddle Fittings			316 SS Tee		PVC Tee		Molded Fittings			
Pipe Size	A	B	Pipe Size	A	B	A	B	Pipe Size	A	B
1-1/2"(50mm)	4-1/2"	3-3/16"	1"	5-1/2"	3"	6"	4"	3/8"	3-3/4" (95)	4-3/4" (121)
2"(63mm)	4-1/2"	3-3/16"	1-1/2"	6-1/4"	3-13/16"	6-5/8"	4-1/2"	1/2"	3-3/4" (95)	5-1/8" (130)
3"(90mm)	4-1/2"	3-3/16"	2"	6-3/4"	4-7/16"	7-1/8"	4-3/4"	3/4"	4" (102)	5-1/4" (133)
4"(110mm)	4-1/2"	3-3/16"						1"	4" (102)	5-5/8" (143)
6"(160mm)	4-3/8"	3-3/16"						1-1/2"	4-1/2" (114)	6-1/2" (165)
8"(200mm)	4-3/8"	3-3/16"						2"	4-3/4" (121)	6-3/4" (171)
10"(250mm)	4-1/2"	4-1/2"								
12"(315mm)	4-1/2"	4-1/2"								

Performance

Digital Paddlewheel Flow Meter

NOTE: All tests performed after approximately 30 minutes tube break-in period.

— PVC Saddles & PVC Tees
— PVDF Saddles & SS Tees



Saddle material:	PVDF (1-1/2", 2", 3", 50mm, 63mm, 90mm sizes) PVC (other sizes)
Pipe fitting:	Polypropylene (optional PVDF)
Sensor, paddlewheel, axle:	PVDF
Sensor O-ring seals:	Viton (optional EP)

Ordering Information

Molded In-Line Pipe Fittings

Pipe Size M/NPT	GPM Flow Range	LPM Flow Range	M ³ /HR Flow Range	OZ/Min Flow Range
38 (3/8")	.8 to 8	30 - 30	0.2 - 1.8	106 - 1058
38 (3/8")	.4 to 4	1 - 10	0.1 - 0.6	35 - 353
50 (1/2")	2 to 20	7 - 70	0.4 - 4.2	247 - 2469
50 (1/2")	.5 to 5	2 - 20	0.1 - 1.2	71 - 705
75 (3/4")	3 - 30	11 - 110	0.7 - 6.6	388 - 3880
75 (3/4")	.8 to 8	3 - 30	0.2 - 1.8	106 - 1058
10 (1")	5 to 50	20 - 200	1.2 - 12	705 - 7054
10 (1")	2 to 20	7 - 70	0.4 - 4.2	247 - 2469
15 (1-1/2")	4 to 40	15 - 150	0.9 - 9.0	529 - 5291
15 (1-1/2")	6 to 60	25 - 250	1.5 - 15	885 - 8818
15 (1-1/2")	10 to 100	40 - 400	2.4 - 24	1411 - 14108
20 (2")	4 to 40	15 - 150	0.9 - 9.0	529 - 5291
20 (2")	6 to 60	25 - 250	1.5 - 15	882 - 8818
20 (2")	10 to 100	40 - 400	2.4 - 24	1411 - 14108
20 (2")	20 to 200	70 - 700	4.2 - 42	2469 - 24689

Saddle Mount Pipe Fittings

Pipe Size IPS	GPM Range	M ³ /HR Flow Range	Model Number	
			Sch 40	Sch 80
1-1/2"	15 - 150	3.5 - 34.5	15K4	15K8
2"	30 - 300	6.9 - 69.0	20K4	20K8
2-1/2"	40 to 400	9.2 - 92.0	25A4	25A8
3"	60 to 600	13.8 - 138	30K4	30K8
4"	100 - 1000	23.0 - 230	40A4	40A8
6"	250 - 2500	57.5 - 575	60A4	60A8
8"	400 - 4000	92.0 - 920	80A4	80A8
10"	600 - 6000	138 - 1380	100A4	100A8
12"	800 - 8000	184 - 1840	120A4	120A8
DIN 8062	LPM	M ³ /HR Flow Range	Metric PN10	
50mm	70 - 700	4.2 - 42.0	05K0	
63mm	110 - 1100	6.6 - 66.0	06K0	
75mm	150 - 1500	9.0 - 90.0	08A0	
90mm	230 - 2300	13.8 - 138	09K0	
110mm	350 - 3500	21.0 - 210	11A0	
160mm	720 - 7200	43.2 - 432	16A0	
200mm	1150 - 11500	69.0 - 690	20A0	
250mm	1700 - 17000	102 - 1020	25A0	
315mm	2700 - 27000	162 - 1620	31A0	

TEE Pipe Fittings

Pipe Size	GPM Range	LPM Range	Model Number	
			316 SS Tee	Solvent Weld PVC Tee
1"	6 to 60	25 - 250	10ST	10AT
1-1/2"	15 to 150	60 - 600	15ST	15AT
2"	30 to 300	100 - 1000	20ST	20AT
3"	60 to 600	230 - 2300	N/A	30AT

Model Number Matrix

RT	S	B	38	K4	GM	1	-	E	Sample Model Number
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Variations

RT = Flow Rate and Totalizing
AO = Analog Output, Flow Rate and Totalizing
PC = Batch Processing, Flow Rate Alarm, Proportional Metering, Flow Rate and Totalizing
AP = Analog Output, Batch Processing, Flow Rate Alarm Proportional Metering, Flow Rate Alarm and Flow Totalizing
FC = Flow Sensor - AC Coil - 200 ft. range
FH = Flow Sensor - Hall Effect - 1 mile range

Display Mounting

S = Meter Mounted on AC Coil Sensor
P = Meter Panel Mounted, AC Coil Sensor, 200 ft. range, includes 25 Ft. of cable
H = Meter Panel Mounted, Hall Effect Sensor, 1 mile Range, includes 25 ft. of cable
X = Sensor only (without Display Meter)
Z = Meter only (without Sensor)

POWER

B = Battery Holder with 4 AA cells
1 = U.S. Transformer, AC 115V60Hz/15Vdc, NEMA 5/15 plug
2 = Europe Transformer, AC 230V50Hz/15Vdc, CEE 7/II plug
3 = U.S. Transformer, AC 230V60Hz/15Vdc, NEMA5/15 plug
4 = U.S. Transformer, 115V60Hz and Battery back-up
5 = Europe Transformer, 230V50Hz and Battery back-up
6 = U.S. Transformer, 230V60Hz and Battery back-up
X = No Selection (Customer must supply power)

Pipe Sizes M/NPT

Imperial Pipe Sizes	Metric Pipe Sizes
38 = 3/8" IPS	05 = 50mm
50 = 1/2" IPS	06 = 63mm
70 = 3/4" IPS	07 = 75mm
10 = 1" IPS	09 = 90mm
15 = 1-1/2" IPS	11 = 110mm
20 = 2" IPS	16 = 160mm
25 = 2-1/2" IPS	20 = 200mm
30 = 3" IPS	25 = 250mm (PN10 only)
40 = 4" IPS	31 = 315mm (PN10 only)
60 = 6" IPS	
80 = 8" IPS	
100 = 10" IPS	
120 = 12" IPS	

Option

E = EP O-rings
K = Kalrez O-rings
P = No pipe fitting
Z = Proportional system set-up
W = Wall/pipe mount kit
* Deduct the cost of the pipe fitting

Calibration Range (see pipe fitting detail)

1 = Range 1	4 = Range 4
2 = Range 2	5 = Range 5
3 = Range 3	6 = Range 6

Calibration Units

GM = U.S. Gallons per minute	LH = Liters per hour
GH = U.S. Gallons per hour	LD = Liters per day
GD = U.S. Gallons per day	MH = Cubic Meters per hour
OM = U.S. Ounces per minute	IM = Imperial Gallons per minute
AD = Acre Feet per day	IH = imperial Gallons per hour
LM = Liters per minute	

Pipe Fitting Type

SADDLE, SCH40 (I.P.S.) PVC or IRON pipe
K4 = 1-1/2", 2", 3" PVDF
A4 = 2-1/2", 4", 6", 8", 10", 12" PVC
SADDLE, SCH80 (I.P.S.) PVC pipe
K8 = 1-1/2", 2", 3" PVDF
A8 = 2-1/2", 4", 6", 8", 10", 12" PVC
SADDLE, PN10 METRIC (DIN 8062) pipe
K0 = 50mm, 63mm, 90mm PVDF
A0 = 75, 110, 160, 200, 250, and 315mm PVC
SADDLE, PN16 METRIC (DIN 8062) pipe
K6 = 50mm, 63mm, 90mm only, PVDF
A6 = 75, 110, 160, and 200, PVC
INLINE INJECTION MOLDED PP AMERICAN M/NPT
M1 = Range #1, M2 = Range #2
M3 = Range #3, M4 = Range #4
3/8", 1/2", 3/4", 1" M/NPT, polypropylene
1-1/2" M/NPT, polypropylene
2" M/NPT, polypropylene
INLINE INJECTION MOLDED PP BRITISH M/BSPT
MB1 = Range #1, MB2 = Range #2
MB3 = Range #3, MB4 = Range #4
3/8", 1/2", 3/4", 1" M/BSPT, polypropylene
1-1/2" M/BSPT, polypropylene
2" M/BSPT, polypropylene

INLINE INJECTION MOLDED PVDF AMERICAN M/NPT
F1 = Range #1, F2 = Range #2
F3 = Range #3, F4 = Range #4
3/8", 1/2", 3/4", 1" M/NPT, PVDF
1-1/2" M/NPT, PVDF
2" M/NPT, PVDF
INLINE INJECTION MOLDED PVDF BRITISH M/BSPT
FB1 = Range #1, FB2 = Range #2
FB3 = Range #3, FB4 = Range #4
3/8", 1/2", 3/4", 1" M/BSPT, PVDF
1-1/2" M/BSPT, PVDF
2" M/BSPT, PVDF
INLINE INJECTION MOLDED TEE PVC SLIP/SOCKET
AT = 1", 1-1/2", 2" only, Female slip glue/weld, 3"
INLINE TEE 316 SS AMERICAN F/NPT
ST = 1" F/NPT
1-1/2" F/NPT
2" F/NPT