

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
- > 4-20ma and 0-10VDC output models
- > Batch Processing and Flow Rate Alarms

Video link:



NEMA 4X

Highlights

Flow range

.4 - 8,000 GPM
1 to 27,000 LPM

Pressures

300 PSI
(20 bar)

Pressure drop

0 - 8 PSI
(varies per model)

Full Scale Accuracy

+/- 1%

Power supply

15-24 VDC
115V/230V60z, 220V/50Hz
Battery operated

Warranty

1 Year

Available Models



Molded Fittings



Saddle Mount Fittings



PVC Fittings

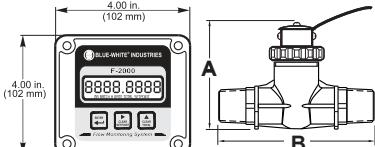
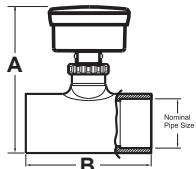
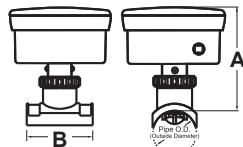


Engineering Specifications

F-2000

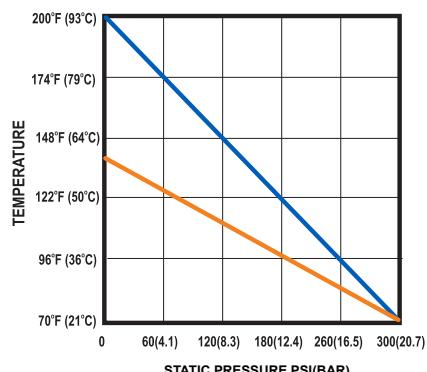
Maximum Working Pressure	300 PSI (20 bar) @ 70 °F (21 °C)
	200 °F (93 °C) @ 0 PSI (PVDF saddles and PP Molded fittings)
Maximum Fluid Temperature	140 °F (60 °C) @ 0 PSI (PVC saddles and PVC Tee fittings)
	NOTE: Temperature rating of F-2000 only. Actual pipe rating may vary.
Maximum Ambient Temperature	14 °F to 110 °F / -10 °C to 43 °C
Maximum Pressure Drop	up to 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) Hall Effect sensor = 1 mile (1.6 km)
Signal Cable	3 conductor shielded. Included 25 ft(7.6 m)(Option for 50 ft and 100 ft)
Approximate Shipping Weight	4 lb. (1.8 kg)
Enclosure	NEMA 4X (IP56)
RoHS Compliant	Yes
BABAA Compliant	Yes

Dimensions



Saddle Fittings			PVC Tee			Molded Fittings		
Pipe Size	A	B	Pipe Size	A	B	Pipe Size	A	B
1-1/2"(50mm)	4-1/2"	3-3/16"	1"	6"	4"	3/8"	3-3/4" (95)	4-3/4" (121)
2"(63mm)	4-1/2"	3-3/16"	1-1/2"	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"	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"						

Maximum Temperature vs. Pressure



Performance

Digital Paddlewheel Flow Meter

PVC Saddles & PVC Tees
 PVDF Saddles & PP Tees

Saddle material:	PVDF (1-1/2", 2", 3", 50mm, 63mm, 90mm sizes) PVC (other sizes)
In-Line Molded Tee:	Polypropylene
Sensor, paddlewheel, axle:	PVDF
Sensor O-ring seals:	FKM (optional EP)

Ordering Information

Molded In-Line Pipe Fittings

Pipe Size M/NPT	GPM Flow Range	LPM Flow Range	M ³ /HR Flow Range	Fitting Number		
				MNPT (MI)	MBSPT (MB)	Flow Range
3/8"	.8 to 8	3 - 30	0.2 - 1.8	38M1	38MB1	1
3/8"	.4 to 4	1 - 10	0.1 - 0.6	38M2	38MB2	2
1/2"	2 to 20	7 - 70	0.4 - 4.2	50M1	50MB1	1
3/4"	3 - 30	11 - 110	0.7 - 6.6	75M1	75MB1	1
1"	5 to 50	20 - 200	1.2 - 12	10M1	10MB1	1
1-1/2"	6 to 60	25 - 250	1.5 - 15	15M2	15MB2	2
2"	10 to 100	40 - 400	2.4 - 24	20M3	20MB3	3
2"	20 to 200	70 - 700	4.2 - 42	20M4	20MB4	4

Saddle Mount Pipe Fittings

Pipe Size IPS	GPM Range	M ³ /HR Flow Range	Material	Fitting Number	
				Sch 40 (S4)	Sch 80 (S8)
1-1/2"	15 to 150	3.5 - 34.5	PVDF	15K4	15K8
2"	30 to 300	6.9 - 69.0	PVDF	20K4	20K8
2-1/2"	40 to 400	9.2 - 92.0	PVC	25A4	25A8
3" *	60 to 600	13.8 - 138	PVDF	30K4	30K8
4" *	100 to 1000	23.0 - 230	PVC	40A4	40A8
6" *	250 to 2500	57.5 - 575	PVC	60A4	60A8
8" *	400 to 4000	92.0 - 920	PVC	80A4	80A8
10" *	600 to 6000	138 - 1380	PVC	100A4	100A8
12" *	800 to 8000	184 - 1840	PVC	120A4	120A8

TEE Pipe Fittings (PVC)

Pipe Size	GPM Range	LPM Range	Fitting Number	
			Solvent Weld PVC Tee (AT)	
1"	6 to 60	25 - 250	10AT	
1-1/2"	15 to 150	60 - 600	15AT	
2" *	30 to 300	100 - 1000	20AT	
3" *	60 to 600	230 - 2300	30AT	

DIN 8062	LPM	M ³ /HR Flow Range	Material	Metric PN10 (P0)	Metric PN16 (P6)
50mm	70 to 700	4.2 - 42.0	PVDF	05K0	05K6
63mm *	110 to 1100	6.6 - 66.0	PVDF	06K0	06K6
75mm *	150 to 1500	9.0 - 90.0	PVC	08A0	08A6
90mm *	230 to 2300	13.8 - 138	PVDF	09K0	09K6
110mm *	350 to 3500	21.0 - 210	PVC	11A0	11A6
160mm *	720 to 7200	43.2 - 432	PVC	16A0	16A6
200mm *	1150 to 11500	69.0 - 690	PVC	20A0	20A6
250mm *	1700 to 17000	102 - 1020	PVC	25A0	
315mm *	2700 to 27000		PVC	31A0	

* Not available in GPD (gallons per day) or LPD (liters per day)

F-2000 Model Number Matrix

F-2000

RT	S	B	38	M1	GM	1	-			Sample Model Number
Variations										Cable Feet
RT = Flow Rate and Totalizing										Blank = Standard 25 feet
AO = Analog Output, Flow Rate and Totalizing										50FT = 50 feet of signal cable
PC = Batch Processing, Flow Rate Alarm, Proportional Metering, Flow Rate and Totalizing										100FT = 100 feet of signal cable
AP = Analog Output, Batch Processing, Flow Rate Alarm Proportional Metering, Flow Rate Alarm and Flow Totalizing										Pipe Fitting
FC = Flow Sensor - AC Coil - 200 ft. range										Blank = Standard
FH = Flow Sensor - Hall Effect - 1 mile range										P = No pipe fitting*
Display Mounting										O-rings
S = Meter Mounted on AC Coil Sensor										Blank = Standard (FKM)
P = Meter Panel Mounted, AC Coil Sensor, 200 ft. range, includes 25 Ft. of cable										E = EPDM
H = Meter Panel Mounted, Hall Effect Sensor, 1 mile Range, includes 25 ft. of cable										
X = Sensor only (without Display Meter)										
Power (AO, PC, AP models must use transformer power supply)										Calibration Range* (see pipe fitting detail)
B = Battery Holder with 4 AA cells (RT model only)										1 = Range 1 2 = Range 2 3 = Range 3 4 = Range 4
1 = U.S. Transformer, AC 115V60Hz/15Vdc, NEMA 5/15 plug										
2 = Europe Transformer, AC 230V50Hz/15Vdc, CEE 7/17 plug										
3 = U.S. Transformer, AC 230V60Hz/15Vdc, NEMA5/15 plug										
X = No Selection (Customer must supply power)										
Pipe Sizes M/NPT (Ensure pipe size chosen is available for the fitting type)										Calibration Units
Imperial Pipe Sizes	Metric Pipe Sizes									GM = U.S. Gallons per minute LH = Liters per hour
38 = 3/8" IPS	05 = 50mm									GH = U.S. Gallons per hour LD = Liters per day
50 = 1/2" IPS	06 = 63mm									GD = U.S. Gallons per day MH = Cubic Meters per hour
75 = 3/4" IPS	07 = 75mm									OM = U.S. Ounces per minute IM = Imperial Gallons per minute
10 = 1" IPS	09 = 90mm									AD = Acre Feet per day IH = Imperial Gallons per hour
15 = 1-1/2" IPS	11 = 110mm									LM = Liters per minute
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										
* Calibration Range										
Molded In-line fittings - Use last number of fitting #.										
All other fittings - Use Range 1										
Saddle Pipe Fitting Type										Inline Pipe Fitting Type
SADDLE, SCH40 (I.P.S.) PVC or IRON pipe										INLINE INJECTION MOLDED PP AMERICAN M/NPT
K4 = 1-1/2", 2", 3" PVDF										M1 = Range #1, M2 = Range #2
A4 = 2-1/2", 4", 6", 8" PVC										M3 = Range #3, M4 = Range #4
A4 = 10", 12" PVC										3/8", 1/2", 3/4", 1" M/NPT polypropylene
SADDLE, SCH80 (I.P.S.) PVC pipe										1-1/2" M/NPT polypropylene
K8 = 1-1/2", 2", 3" PVDF										2" M/NPT polypropylene
A8 = 10", 12" PVC										INLINE INJECTION MOLDED PP BRITISH M/BSPT
SADDLE, PN10 METRIC (DIN 8062) pipe										MB1 = Range #1, MB2 = Range #2
K0 = 50mm, 63mm, 90mm PVDF										MB3 = Range #3, MB4 = Range #4
A0 = 75, 110, 160, 200 PVC										3/8", 1/2", 3/4", 1" M/BSPT polypropylene
A0 = 250,315mm PVC										1-1/2" M/BSPT polypropylene
SADDLE, PN16 METRIC (DIN 8062) pipe										2" M/BSPT polypropylene
K6 = 50mm, 63mm, 90mm PVDF										INLINE INJECTION MOLDED TEE PVC SLIP/SOCKET
A6 = 75, 110, 160, and 200, PVC										AT = 1", 1-1/2", 2"
										Female slip glue/weld
										3" Female slip glue/weld
Optional Accessories and Components										
71000-294 Panel Mount Kit Bracket										
71000-514 Mounting Conversion Kit, Sensor Mount to Panel Mount.										
71000-301 Wall Mount Adapter Kit. Cable Not Included.										
71000-302 Wall or Pipe Mounting Kit (3/8" - 1.5 " Pipe). Cable Not Included.										
71000-303 Wall or Pipe Mounting Kit (2" Pipe). Cable Not Included.										
71000-304 Wall or Pipe Mounting Kit (3" Pipe). Cable Not Included.										
71000-305 Wall or Pipe Mounting Kit (4" Pipe). Cable Not Included.										
71000-306 Wall or Pipe Mounting Kit (6" Pipe). Cable Not Included.										
71000-307 Wall or Pipe Mounting Kit (8" Pipe). Cable Not Included.										
71000-414 Wall or Pipe Mounting Kit (10" Pipe). Cable Not Included.										
71000-415 Wall or Pipe Mounting Kit (12" Pipe). Cable Not Included.										
71000-322 Battery Back-up Kit										