Product Data Sheet
PDS-134
2021-01-09

VertiFlo

Vertical Propeller Flow Meter

Description

VertiFlo meters provide an economical meter installation for accurately measuring flows from wells equipped with submersible pumps. Equally ideal applications are installations on the suction side of centrifugal pumps or similar installations where space limitations and piping configurations deem it inadvisable to utilize the Sparling tube-type or conventional saddle type meters. Special requirements for meter installation are reduced to a minimum because the meter is installed in a standard flanged tee.

Certified Accuracy

Accuracy is within 2% of actual flow for the specified meter range. This accuracy is guaranteed by certified wet calibration at three test points in Sparling's NIST traceable primary flow laboratory. Each meter is tested at low flow, mid-range, and high flow. A test certificate is provided with each meter.

Electronic Design

The Model FM134 features the FT194-II battery powered electronic rate/totalizer which senses the rotation of the propeller by means of a magnetic pickup sensor located in the gearbox. The rate/totalizer and pickup are completely isolated from the flow stream.

Fewer moving parts combined with a proven Sparling design relluts in less wear, reduced maintenace costs and longer life.

Rate Indication and Totalizer

The rate is shown on a 5-digit LCD readout and the cumulative total flow is shown on a 8-digit LCD straight reading totalizer in any standard volumetric units.

The FT194 is ordered separately, it can be mounted integrally, remotely and with the outputs: 4-20mA and Pulse Output.

High Velocity Flows - For applications where continuous flow rates are above the mid-point standard flow range ratings, high velocity construction of the meters is recommended.

Installation

Verti-flo meterheads are drilled in accordance with standard 125# or 250# cast iron flanged tee requirements, as specified on customer order, and are simply bolted into position. The length of the meter drop pipe is manufactured in accordance with overall dimensions as stated in the customer's order.

For down-flow installations, the straightening vanes are supplied integral with the meter and no further work is required.

For up-flow, three straightening vanes are recommended to be welded upstream of the meter.

Welding vanes, bolting type vanes and stainless-steel liner and vane assemblies are available at extra cost.

Materials

All materials used in manufacturing are highly resistant to normal water corrosion and recommended for water works application. Special materials are utilized for highly corrosive conditions. Liquid temperatures should not exceed 100°F.

Flow Rates & Dimensions

Size		4"	6"	8"	10"	12"	14"
Low Flow							
	Min	50	90	100	125	150	250
	Max	400	900	1200	1600	2200	3000
Standard Flow							
	Min	120	200	240	320	400	520
	Max	600	1600	2300	3000	4000	5000
150 psi	A	9	11	$13\frac{1}{2}$	16	19	21
	BC	$7\frac{1}{2}$	$9\frac{1}{2}$	$11\frac{3}{4}$	$14\frac{1}{4}$	17	$18\frac{3}{4}$
	# of Bolts	8	8	8	12	12	12
	Size of Bolts	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{7}{8}$	1
300 psi	A	10	$12\frac{1}{2}$	15	$17\frac{1}{2}$	$20\frac{1}{2}$	23
	BC	$7\frac{7}{8}$	$10\frac{5}{8}$	13	$15\frac{1}{4}$	$17\frac{3}{4}$	$20\frac{1}{4}$
	# of Bolts	8	12	12	16	16	20
	Size of Bolts	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{2}$

Ordering Information

Size (in)	Flow Range (GPM)	Drop Pipe Length (in)	
	Low	Up-Flow	Down-Flow
4.00	50.0 - 400	18.0	28.5
6.00	90.0 - 900	21.0	41.0
8.00	100 - 1200	23.0	53.0
10.0	125 - 1600	27.0	66.0
12.0	150 - 2200	29.0	78.0
14.0	250 - 3000	34.0	91.0

How to Order a FM134

Table 1: Base Model Number
FM134 - Electronic Vertiflo Meterheads

Table 2: Size
04 - 4" **06** - 6" **08** - 8"
10 - 10" **12** - 12" **14** - 14"

Table 3: Head Connections
1 - 125# AWWA Flange (150 psi MWP)
2 - 250# AWWA Flange (300 psi MWP)

Table 4: Construction
4 - Up-Flow (Vanes Not Included)
5 - Down-Flow (Vanes Included)

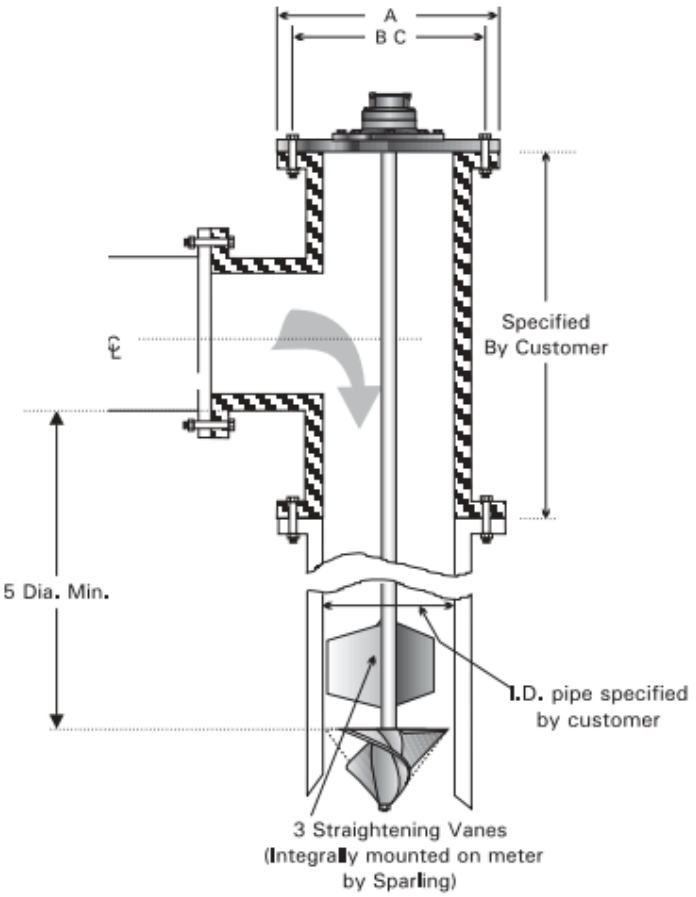
Table 5: Flow Range
1 - Low Range
2 - Standard Range

Table 6: Readouts
0 - None

Table 7: Accessories
0 - None
1 - Welding Vanes
2 - Bolting Vanes
5 - Add. Drop Pipe Length
6 - One and Five Above
7 - Two and Five Above

Model	Size	Head	Const	Flow	Read	Access.
FM134	04	1	4	1	0	0

DOWN-FLOW



UP-FLOW