

EQUFLOW**PVDF Disposable Turbine Flow Sensor**

PVDF wetted parts, F.S. ranges of 2 & 20 lpm, Frequency Output

DESCRIPTION

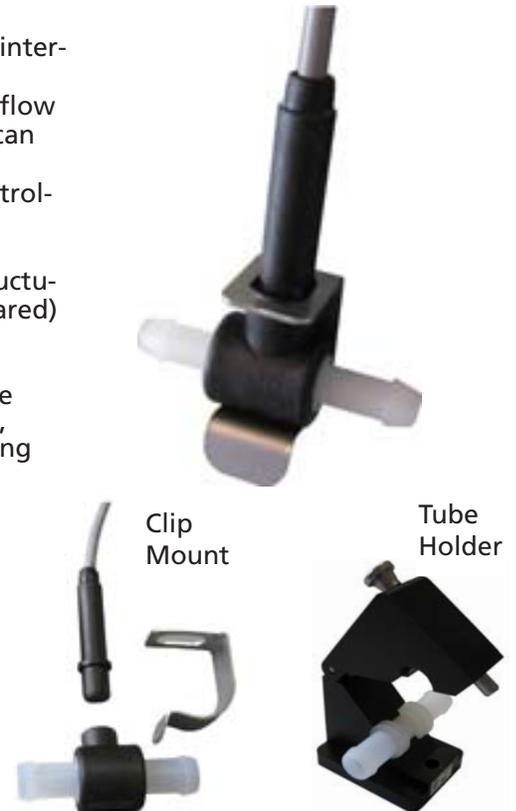
The PVDF Turbine Flow Sensor has been developed to perform a fast interchange of the flowtube to accommodate hygienic applications in the medical, pharmaceutical, and bio-technological industries. It has low flow capabilities and high resolution square wave output. The flow tube can be sterilized to 140°C (284°F) and is gamma radiation resistant up to 50 kGy. These features make this model ideal for monitoring and controlling fluid flows in hygienic applications.

A field replaceable ultra light-weight turbine assembly follows the fluctuation of flow very accurately and generates a high resolution IR (Infrared) reflected digital output signal.

External optional electronic packages include model PD6300 flow rate indicator and totalizer and PD6310 batch controllers. Rich in features, these products provide complete solutions for monitoring and batching applications.

Features

- Turbine flowsensor with high resolution output
- Flow measuring by revolutionary IR turbine reflection.
- PVDF for high chemical and corrosion resistance
- High accuracy and repeatability
- Suitable for opaque liquids
- Meets all the requirements of the US Pharmacopeia Class VI
- BSE/TSE certificate available
- All wetted parts are made of PVDF with ruby bearing
- Programmable K-factor (at factory)
- PVDF flow tube gamma radiation resistant up to 50kGy



Available in two different configurations as shown above, the PVDF sensor may be ordered with a tube holder or may be clip mounted.

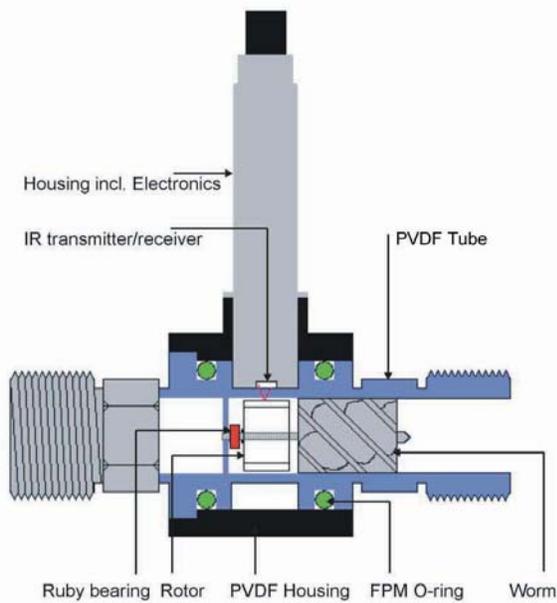
SPECIFICATIONS

Patent No. US5388466

GENERAL

Model	PVDF0045	PVDF0085
Inner diameter in mm	4.7	9.3
Flow range (L/min)	0.06 - 2.0	0.3 - 20.0
Hose barb tube connection	7 mm	12 mm
Tube length in mm	53	62
Max. pressure at 20°C in bar (psi)	25 Bar (363 psi)	20 Bar (290 psi)
*K factor (water) in pulse/Liter (nominal)	100,000	4,500
Wetted parts	PVDF / Ruby	
Accuracy	1% of reading	
Repeatability	< 0.15 %	
Liquid temperature in °C	-20 to +80	
Viscosity in cSt.	0.8 - 10	
Power supply	5 - 30 Vdc	
Output signal	5 - 30 V sq. wave	
Power consumption	34 mA at 5 V	
Electrical lead	PVC, 1 meter	
Recommended Line filter	100 µm	
Flow tube sterilizable	up to 140°C	
Gamma radiation resistant	50 kGy	

*K-factors (pulses per liter) are factory determined and provided for each flow tube. Customer specified K-factors can be accommodated and are programmed at the factory.



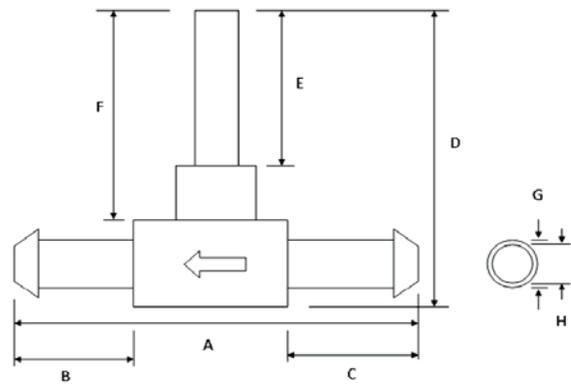
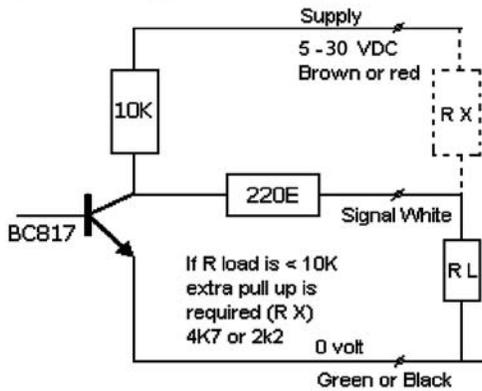
Working Principal:
 A static worm forces the passing fluid to spin. The spinning fluid drives a rotor with reflectors into a frictionless rotation. A high resolution infrared sensor determines the rate of flow by counting the passing reflections. The set up even allows the flow of opaque liquids to be determined accurately. The ultra low mass of the rotor guarantees a quick response to changes in the rate of flow.

WIRING

Wiring:

Power Supply 5-30 Vdc

Output All Sensors: NPN square wave



Dim. (MM)	PVDF0045	PVDF0085
A	52	62
B	15	20
C	17	20
D	60	67
E	36	36
F	46	46
G	7.0	12
H	4.5	9.0

ORDERING INFORMATION

ABCDEFGH

PVDF0045PHP01CA

A Model	B Tube Diameter / Range	C Wetted Material	D Connection	E Cable Type	F Cable Length	G Version	H Power
PVDF	0045= 4.5 mm/0.03-2 l/min 0085= 8.5 mm/0.3-20 l/min	P=PVDF	H= Hose Barb	P= PVC	01= 1 meter (Standard) 02= 2 meters	T= Click Housing C= Clip Housing	A= 5-30 VDC

Replacement Parts

Clip Mounted:

PVDF0045PH000CX PVDF tube only for model 0045

PVDF0085PH000CX PVDF tube only for model 0085

0000.P.X.P.01.CA Electronics

Tube Holder:

0045.C.X.P.01.TA Tubeholder for PVDF 4.5, w/5-30vdc electronics

0085.C.X.P.01.TA Tubeholder for PVDF 8.5, w/5-30vdc electronics

0045.P.H.0.00.TX PVDF disposable tube 4.5 for tube holder

0085.P.H.0.00.TX PVDF disposable tube 8.5 for tube holder