

Specification Sheet

P100 Industrial Grade PVDF Turbine



Description

Operation. The PVDF Turbine meter is designed for those applications where a more rugged meter is required. The fluid passes through the meter without a change in direction, and drives the rotor in direct proportion to the quantity of fluid passing through the meter. Rotor revolutions are transferred to the electronic register by magnetic actuation of a pickoff coil.

Compliance to Standards. This unit is Factory Mutual Approved (FM) and carries a Class 1, Division 1, Groups A-G, Approval for hazardous environments.

Installation. The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter can be installed in any position, i.e., horizontal, inclined, or vertical. The meter must have 10 pipe diameters inlet and 5 outlet of straight pipe the same size as the meter. Appropriate strainer per media to be located 10 pipe diameters ahead of the meter inlet.

Application. These units address a wide range of industrial and commercial fluid measuring applications. A Chemical Compatibility Chart is available.

Construction. The PVDF turbine meters contain only one moving part and are trouble-free. The body is PVDF, other wetted parts are ceramic (98% alumina) (shaft), PVDF, i.e. kynar (rotor and supports), ceramic (bearings) and viton (O-ring).

Sizes 1/2" & 1"

Specifications

Sizes

<u>Accuracy (GPM)</u>	1/2"	1"
± 5% Minimum Flow	0.6	2.5
± 1.5% Low Flow	1	5
± 1.5% Peak Flow	10	50
Operating Pressure (psi)	150	150
Max. Pressure Drop (psi)	10	6
Viscosity (Centipoise)	1-25	1-25

Temperature

Operating	-20° to 140°F (-28° to +60°C)
Storage	-40° to 250°F (-40° to +121°C)

<u>Register Reading Smallest Quantity</u>	1/2"	1"
US Gallon	1/100	1/100
Cubic Meter	1/100	1/100
Liter	1/100	1/100

Electronic Register

Battery Life	4000 Continuous Hours
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<u>Capacity of Register</u>	1/2"	1"
US Gallon (millions)	1	1
Cubic Meter (millions)	1	1
Liter (millions)	1	1

<u>Pulse Output Frequency</u>	1/2"	1"
Range (Hz)	37-370	45-475

<u>K Factor (Approximately)</u>	1/2"	1"
	2200	585

Note: Each meter has its K Factor marked on the body.

Materials

Body/Housing	PVDF
Journal Bearings	Ceramic (98% Alumina)
Shaft	Ceramic (98% Alumina)
Rotor and Supports	PVDF (Kynar)
O-Rings	Viton

Connections. All sizes have NPT internal threads.

Register. These turbines are prepared with computer electronics which provide microprocessor-based LCD read-out with a large six digit display indicating both total and rate of flow. The register has two totals, total #1 is non resettable and total #2 can be reset by holding down the display button for 3 to 4 seconds. Total #2 can be reset from a remote position by wiring J1 to J6 with a simple switch. Total #2 can be used for batching applications. Note the register also has two calibrations to support the totals.

Pulse Output. (Optional) This unit provides a digital open collector current sinking output with a frequency range of 0 to 750 Hz, 2 wire, applied voltage of 0 to 60 Volts DC and allowable current up to 100 mA. The output is a square wave pulse, amplitude same as supply voltage.

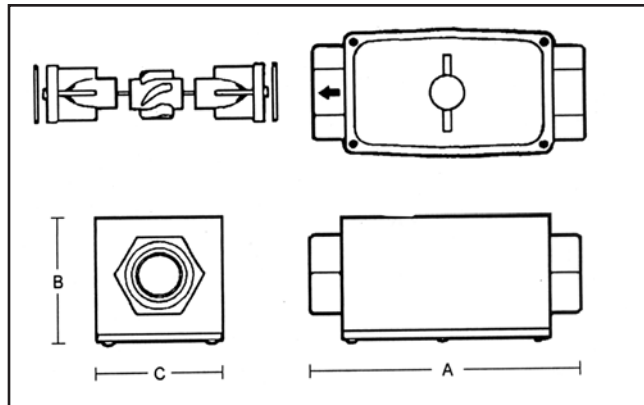
4-20 mA Module. (Optional) Provides an industry standard analog signal that communicates with most process control devices proportional to rate of flow. The unit requires 7-30 VDC from an external power supply. The output is a loop with minimum 4 mA and maximum 25 mA. Note: Or a secondary output 0-5 Volts. FM Approval pending for Pulse and 4-20 mA Modules.

External Power Module. (Optional) External power supplies of 7-30 VDC may be used when both the External Power Module and Pulse Access Module are ordered. When external power is used, the included internal lithium battery becomes a "back-up" power supply.

Standard Remote Kit Assembly. (Optional) This kit modifies the meter by separating the electronics from the meter body, up to 300 ft. from the body, then the meter body can successfully measure fluid up to 180°F. This kit consists of sensor module, a dustcover assembly and one foot of cable.

Dimensions & Net Weights

Meter Size	Dimensions (Inches)			Weight (lbs.)
	A	B	C	
1/2"	7.0	2.50	2.75	1.4
1"	8.125	3.25	3.125	1.9



Note: Computer electronics add 0.7 in. (1.8 cm) to height of turbine housing.

The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice.

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