

Specification Sheet



Industrial Grade Stainless Steel Turbine Models S050, S075 & S100

Sizes: 1/2", 3/4" & 1"

Description

Operation. The 316 Stainless Steel 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.

Specifications

	1/2"	3/4"	1"
Minimum Flow GPM	0.5±5%	1±5%	2.5±5%
Low Flow GPM	1±2%	2±1.5%	5±1.5%
Peak Flow GPM	10±2%	20±1.5%	50±1.5%
Operating Pressure (psi)	1500	1500	1500
Max. Pressure Drop (psi)	8	7.5	5
Viscosity (Centipoise)	1-25	1-25	1-25

Temperature

Operating	+14°F to 140°F
Storage	+14°F to 140°F

Register Reading Smallest Quantity

US Gallon	1/100	1/100	1/100
Cubic Meter	1/100	1/100	1/100
Liter	1/100	1/100	1/100

Electronic Register Battery Life

4000 Continuous Hours

Capacity of Register

US Gallon (millions)	1	1	1
Cubic Meter (millions)	1	1	1
Liter (millions)	1	1	1

Pulse Output Frequency Range (Hz)

45-450 37-370 45-475

Materials

Body/Housing	316 Stainless Steel
Journal Bearings	Ceramic (96% Alumina)
Shaft	Tungsten Carbide
Rotor and Supports	PVDF (Kynar)
Retaining Rings	316 Stainless Steel

Construction. The 316 turbine meters contain only one moving part and are trouble-free. The body is 316 Stainless Steel. Other wetted parts are tungsten carbide (shaft), PVDF, i.e. Kynar (rotor and supports) and ceramic (bearings).

Connections. All sizes have NPT internal threads.

Register. These turbines incorporate electronics that provide a microprocessor-based LCD readout with a large six-digit display indicating both total and rate of flow. Note: The totalizer can be reset by wiring J1 to J6 with a simple switch.

Pulse Output. This optional unit provides a digital open collection 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.

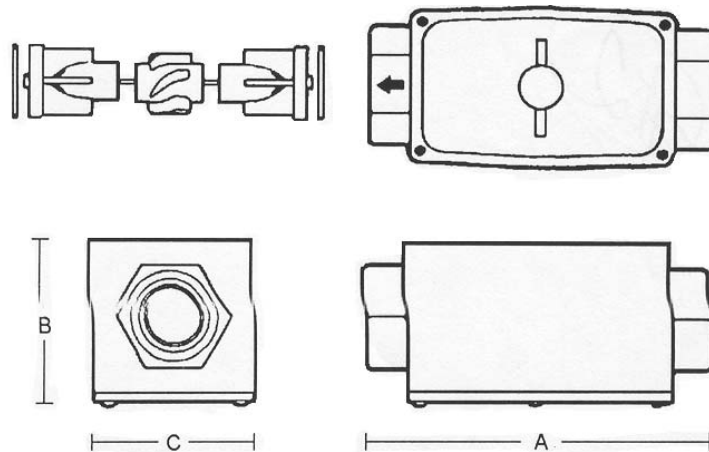
4-20 mA Module. Optional module provides an industry standard analog signal that communicates with most process control devices proportional to rate of flow. The unit requires 7-30 VDC from an external power supply. The output is a loop with minimum

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. 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.

Dimensions & Net Weights

Meter Size	Dimensions (Inches)			Weight (lbs.)
	A	B	C	
1/2"	4.2	1.8	2.0	2.0
3/4"	4.3	2.0	2.0	2.3
1"	4.5	2.2	2.0	2.6



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

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