

# Industrial Grade Stainless Steel Turbine

## Models S050, S075 & S100

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



Sizes:	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

**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. 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 are 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.

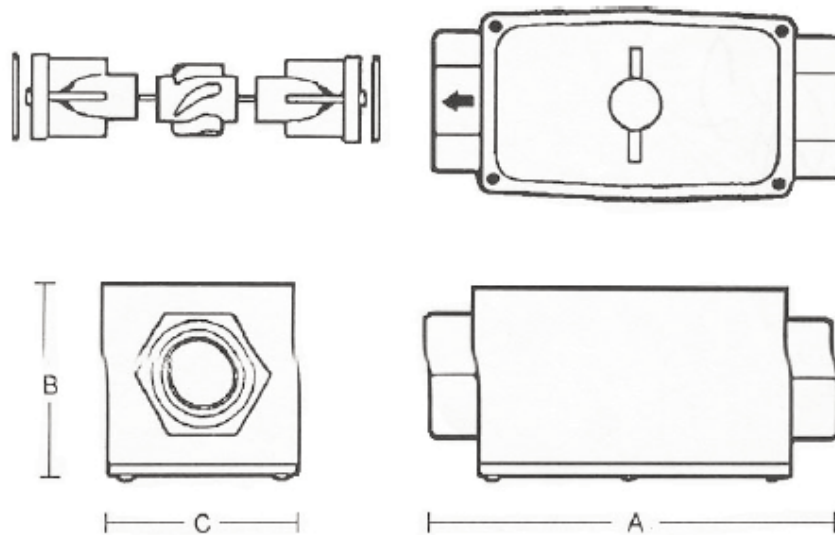
**Pulse Output.** This optional unit provides a digital open collection current sinking output with a frequency range of 0 to 750 Hz, 2 wire, applied voltage of 0 to 60 Volts DC and allowable current up to 100 mA. The output is a square wave pulse, amplitude same as supply voltage.

**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. INDC7-PUL-001. Can be connected to RF or MIU device for central point reading. Note: Register housing and register are 3½ in. diameter style.

**Dimensions and 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.

Elster AMCO Water, Inc.  
 PO Box 1852  
 Ocala, FL 34478-1852  
 United States

T +1 800 874 0890  
 F +1 352 368 1950

watermeters@us.elster.com  
 www.elster.com

© 2007 by Elster. All rights reserved.

The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.