Oilfield Style Liquid Turbine Meter
WH Series

Bulletin SSIN038 Issue/Rev. 0.1 (11/18)

INVALCO has a proven 35 year record in the design and manufacture of quality Liquid Turbine Meters and was a pioneer in the use of Tungsten Carbide as a bearing material for the stringent demands of the petroleum industry.

INVALCO's **WH Oilfield Series Meter** utilizes a rugged, durable three-piece rotor/stator design required for the extreme demands of the oil patch. The double sleeve Tungsten Carbide bearing and flow through design provide excellent performance and unsurpassed mean-time-between-failure (MTBF) characteristics.

Features and Benefits

Rotor Supports

Heavy-duty upstream and downstream flow straightening for increased accuracy and durability

Helical Cast Rotor

Cast from a highly wear-resistant stainless steel for durability and long service life

Journal Bearings and Thrust Balls

Tungsten Carbide bearing surfaces are extremely durable and reliable

All Stainless Steel Construction

All wetted parts are highly corrosion resistant stainless steel ensuring years of corrosion free service

Available in 1" and 2" Wafer Style, 1" and 1-1/2" NPT, and 2" f x f NPT

Capacity Table

Flow Range			Nominal K-Factor		
Size (in.)	GPM	LPM	P/GAL	P/L	P/BBL
1"	6.5 - 65	24.6 - 246	1211	320	50,862
1 1/2"	17.5 - 175	66.2 - 662	342	90	14,332
2"	40 - 400	151.2 - 1512	52	13.75	2,184

Materials of Construction

Body

316 Stainless Steel

Flanges

316 Stainless Steel

Supports

3AE 5360 Stainless Steel

Retainer

316 Stainless Steel

Rotor

CD4MCU Stainless Steel

Shaft

Tungsten Carbide

Bearings

Tungsten Carbide

General Specifications

End Connection/Pressure Rating (CWP)

1" and 1-1/2" NPT – 5000 psig (34,473 Pa)
2" f x f NPT – 5000 psig (34,473 Pa)
1" and 2" Wafer – As per connection flange rating to ANSI 1500 lbs.

Temperature Rating

-20°F to 228°F (-290°C to 109°C) *

Linearity

±1.0% over stated range

Repeatability

±0.05%

Maximum Overrange

125% of flow rate for intermittent periods

Response Time

2.5 milliseconds for step change in flow rate

Frequency Output

100 Hz to 1000 Hz

Voltage Output

Approx. 100mV @ 100 Hz - 1.5 V (RMS) @ 1000 Hz

Standard Pick-up Coil (Order Separately)**

DC Resistance: 975 Ω
Inductance: 400 mH
Mating Connector: 10SL-4S or Wire Leads

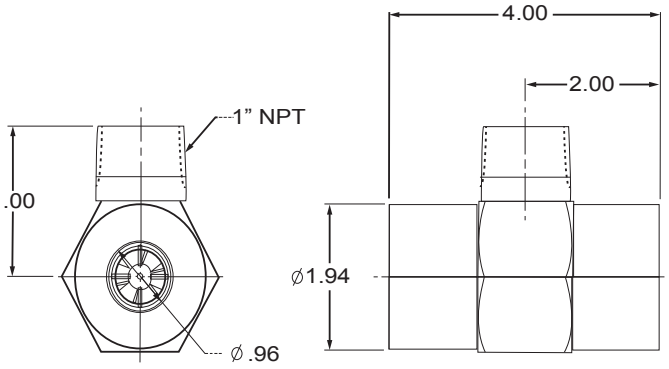
Note:
*Limited by pick-up coil; consult factory for temperatures outside this range.
**Additional pick-up coil options available upon request.

Ordering Information

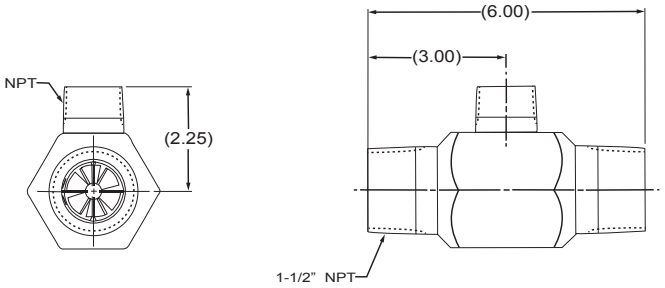
WH	Tungsten Carbide Sleeve Bearing Meters			
|	CODE	BODY STYLE		
|	1	2" f x f NPT		
|	3	Male NPT		
|	9	Wafer		
|	|	CODE	METER SIZE AND FLOW RANGE	
|	|	1	1" - 6.5 to 65 GPM	
|	|	15	1-1/2" - 17.5 to 175 GPM	
|	|	2	2" - 33 to 400 GPM	
|	|	|	CODE	
|	|	|	000	
|	|	|	|	
Example:		|	|	
WH	**3**	**1**	**000**	
Choose one code selection from each option group to build model number.				

Note:
1. Order pickup coil, cable and electronics separately.
2. For special requests please contact factory for quote.

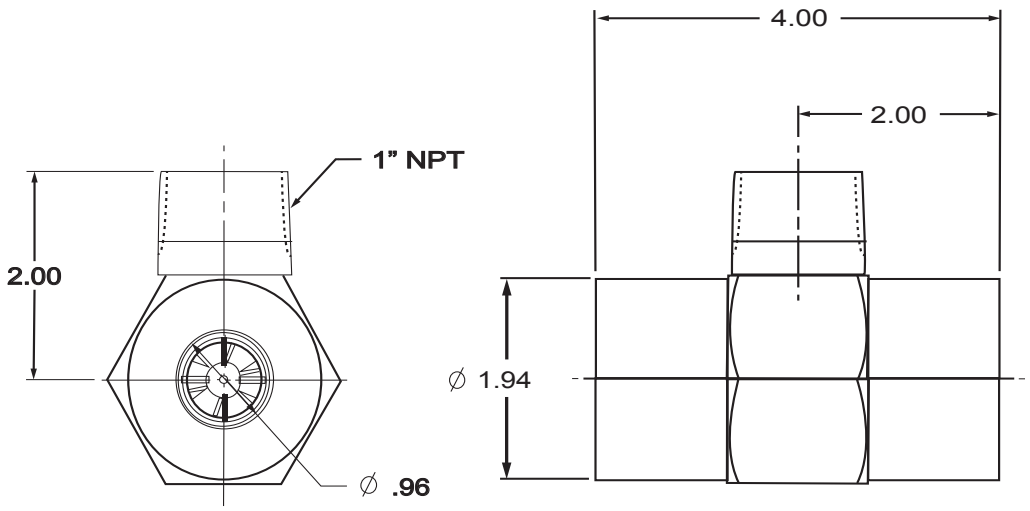
Dimensions 1" Male NPT



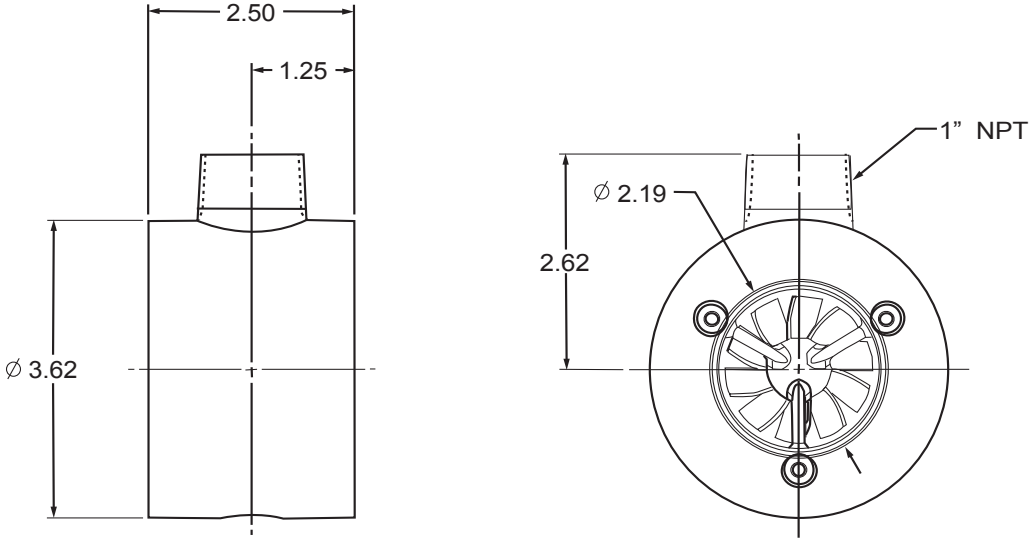
Dimensions 1-1/2" Male NPT



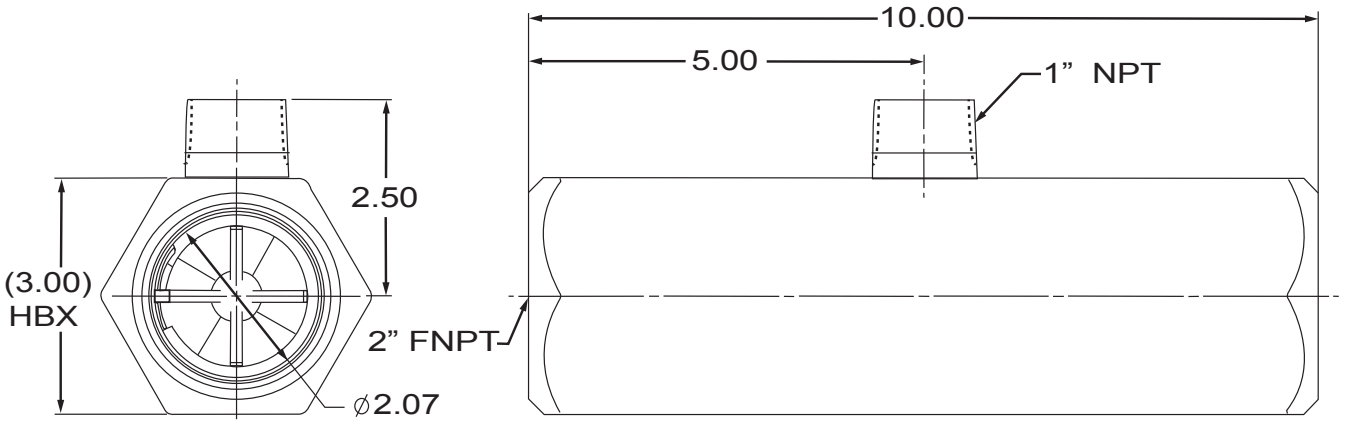
Dimensions 1" Wafer



Dimensions 2" Wafer



Dimensions 2" f x f NPT



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