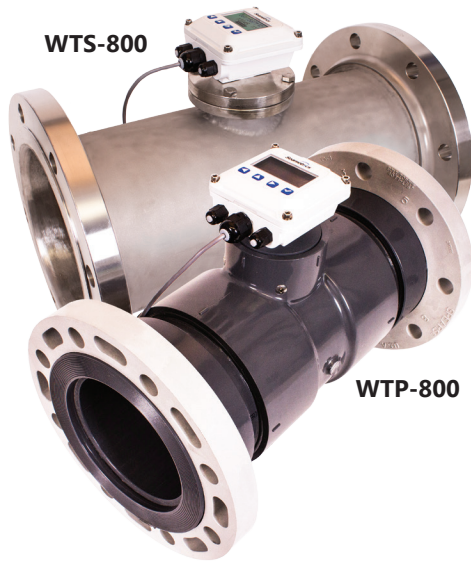


# WT-SERIES TURBINE METERS

# Seametrics



## RIGHT METER FOR

Water treatment

Municipal

Cooling water monitoring

Industrial flow control

## Features

- One moving part
- Low friction jewel bearings
- Field repairable
- Choice of materials
- Variety of displays and controls

This unique system of 2" to 8" turbine meters uses just one moving part, a precision helical rotor. Rotation of the rotor is electronically detected and processed. The high-quality jewel bearings and shafts minimize friction while providing long life in non-lubricating fluids. The entire rotor assembly can be easily removed for field service without removing the meter from the pipe.

WTP bodies are fabricated from Schedule 80 PVC fittings, WTC bodies from carbon steel tubing, and WTS bodies from stainless steel tubing. The turbine insert on WTC and WTS meters is machined from a stainless steel casting. The WTP turbine insert is machined from a solid piece of PVC. Turbine rotors on all models are Kynar (PVDF).

WT meters can be ordered with various output options. The basic model (100) comes with pulse output only. An electronic display (Seametrics FT430/440) can be mounted on the 103 and 109 models to display flow rate and total (resettable or non-resettable), and provide a programmable pulse or 4-20 mA output. Other electronics options include a blind 4-20 mA transmitter (AO55) on the 102 model and a battery-powered (FT450) rate/totalizer plus pulse output for applications that lack power (107 model). All of these controls/displays can be mounted on the meter or remotely mounted on a wall or panel up to 2,000 feet away. WT-Series meters are compatible for use with other remote-mount Seametrics displays and controls as well.

## Contact Your Supplier

## Specifications\*

		WTP				WTC					WTS				
<b>Pipe Sizes</b>		2", 3", 4", 6"				2", 3", 4", 6", 8"					2", 3", 4", 6", 8"				
<b>Materials</b>	<b>Meter Body</b>	PVC Schedule 80 fittings				Painted carbon steel					304 Stainless steel (316 SS optional)				
	<b>Turbine Insert</b>	PVC				CF8 cast stainless					CF8 cast stainless				
	<b>Rotor</b>	Kynar® (PVDF)				Kynar® (PVDF)					Kynar® (PVDF)				
	<b>Shaft</b>	Zirconia ceramic 3"- 6"				Zirconia ceramic 3"- 8"					Zirconia ceramic 3"- 8"				
	<b>Shaft</b>	Tungsten Carbide 2"				Tungsten Carbide 2"					Tungsten Carbide 2"				
	<b>Bearings</b>	Sapphire journal, ruby endstone				Sapphire journal, ruby endstone					Sapphire journal, ruby endstone				
<b>Cable</b>		#22 AWG, 2000' max				#22 AWG, 2000' max					#22 AWG, 2000' max				
<b>Flanges</b>		Optional (See dimensions)				150 lb. drilling (3"- 8" only)					150 lb. drilling (3"- 8" only)				
<b>Maximum Pressure</b>		150 psi @ 75° F (10 bar @ 24° C) (See chart)				200 psi (14 bar)					200 psi (14 bar)				
<b>Maximum Temperature</b>		120° F (50° C) (See chart)				200° F (93° C)					200° F (93° C)				
<b>Accuracy</b>	<b>3" - 8"</b>	± 1% of full scale				± 1% of full scale					± 1% of full scale				
	<b>2"</b>	± 2.5% of full scale				± 2.5% of full scale					± 2.5% of full scale				
<b>Flow Range (GPM)</b>		<b>2"</b>	<b>3"</b>	<b>4"</b>	<b>6"</b>	<b>2"</b>	<b>3"</b>	<b>4"</b>	<b>6"</b>	<b>8"</b>	<b>2"</b>	<b>3"</b>	<b>4"</b>	<b>6"</b>	<b>8"</b>
<b>Minimum</b>		2	3	6	12	2	3	6	12	30	2	3	6	12	30
<b>Maximum</b>		150	400	600	1200	150	400	600	1200	3000	150	400	600	1200	3000

Kynar is a registered trademark of Arkema, Inc.

\* Specifications subject to change • Please consult our web site for current data ([www.seametrics.com](http://www.seametrics.com)).

## Electronics Options Specifications\*

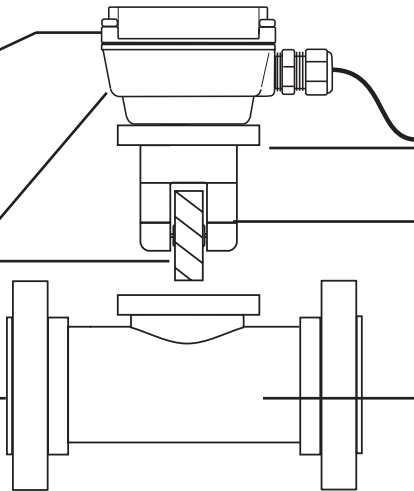
	WT100	WT102	WT103	WT107	WT109
<b>Power</b>	6-24 Vdc	24-36 Vdc (isolated)	7-30 Vdc	Battery (Lithium "C", 3.6V, replaceable)	7-30 Vdc, 4mA (4-20 mA when loop powered)
<b>Electronic Display</b>		A055	FT430	FT450	FT440
<b>Pulse Out</b>	0-160 pulse/sec. current sinking		Pulse scaled and pulse pass through	Pulse scaled	Pulse scaled
<b>Analog Out</b>		4-20 mA Loop			4-20 mA Loop
<b>Rate</b>			5-digit autorange	5-digit autorange	5-digit autorange
<b>Total</b>			8-digit	8-digit	8-digit
<b>Memory</b>			Non-volatile	Non-volatile	Non-volatile
<b>Response Time</b>		2-60 seconds, 90% full scale, (depending on input averaging)			
<b>High/Low Alarm</b>			Selectable on one output	Selectable on one output	Selectable on one output
<b>Regulatory</b>	CE Mark	CE Mark	CE Mark	CE Mark	CE Mark

## Features

Modular electronics for a wide range of applications (available as meter or remote mount)

Rugged cast control housing  
Rotor is the only moving part

150 lb. drilling flanges  
or female NPT threaded  
(depends on model and size)



Cast stainless steel (WTC & WTS)  
or PVC (WTP) insert removes  
easily for service

Jewel bearings for long life  
and low friction resulting in  
lower minimum flows

Schedule 80 PVC (WTP);  
Fabricated carbon steel (WTC);  
or stainless steel (WTS)

## Dimensions

### WTP METER

Meter Size	Dim A	Dim B
2"	10"	7.5"
3"	12"	6.5"
4"	14"	7.0"
6"	18"	8.5"

*NOTE: Flange options face-to-face dimension ("A") is the same as plain ends.*

### WTC and WTS METERS

#### 2" Meter

Female NPT threaded ends standard.  
Flange ends available.

Meter Size	Dim A
2"	* 8" / #10"
3"	12"
4"	14"
6"	18"
8"	20"

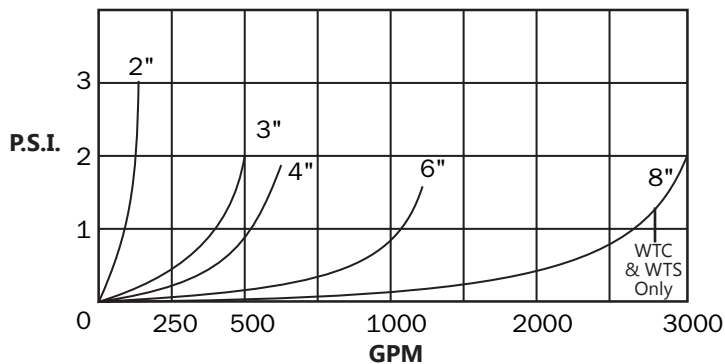
*\* Without flange, #With flange*

#### 3" - 8" Meter

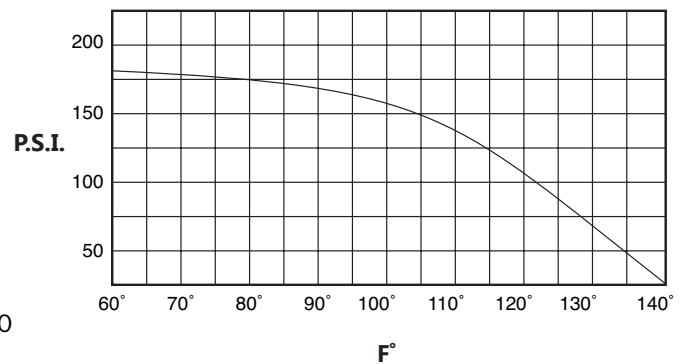
Flange  
150 lb  
drilling

## Pressure and Temperature

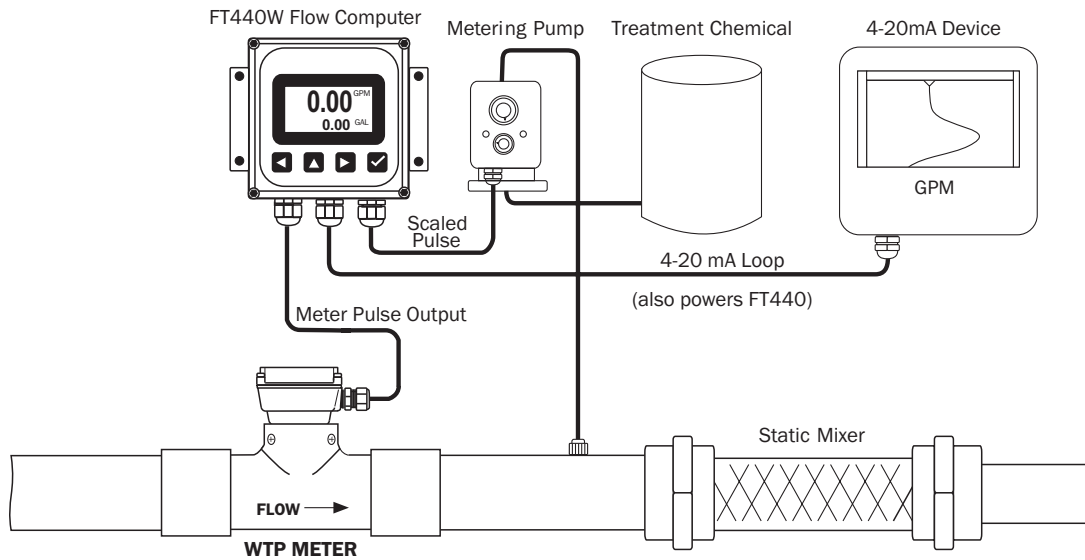
Pressure Loss Chart (all)



Pressure vs. Temperature (WTP Only)



## Typical Application



## How to Order

MODEL	ELECTRONICS	SIZE	OPTIONS
Carbon Steel = <b>WTC</b>	Pulse Output = <b>100</b>	2" = <b>-200</b>	Micropower Sensor = <b>-04</b> (For use with FT450W)
PVC = <b>WTP</b>	4-20 mA only = <b>102</b>	3" = <b>-300</b>	316 SS (WTS only) = <b>-14</b>
Stainless Steel = <b>WTS</b>	Rate+Total/Pulse Scaled/ Pulse Pass Through = <b>103</b>	4" = <b>-400</b>	Flanged Ends (WTP) = <b>-18</b>
	Battery-Powered/Pulse = <b>107</b>	6" = <b>-600</b>	Flanged Ends (2" WTS) = <b>-20</b>
	Rate+Total/Pulse Scaled/ 4-20mA = <b>109</b>	8" = <b>-800</b> (WTC & WTS Only)	Tamper-evident = <b>-32</b>
			Flanged Ends (2" WTC) = <b>-34</b>
			Non-resettable total = <b>-64</b>
			Hinged Display Cover = <b>-126</b>
<b>ACCESSORIES</b>			
Remote Rate and Total Indicator = <b>FT430W/440W</b>		Remote Battery-Operated Rate/Totalizer = <b>FT450W</b>	
Remote Blind 4-20 mA Converter = <b>AO55W</b>		Remote Pulse Divider = <b>PD10W</b>	