# WT-SERIES
## TURBINE METERS



### 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 3" 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 and WTS bodies from stainless steel tubing. The turbine insert on 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*

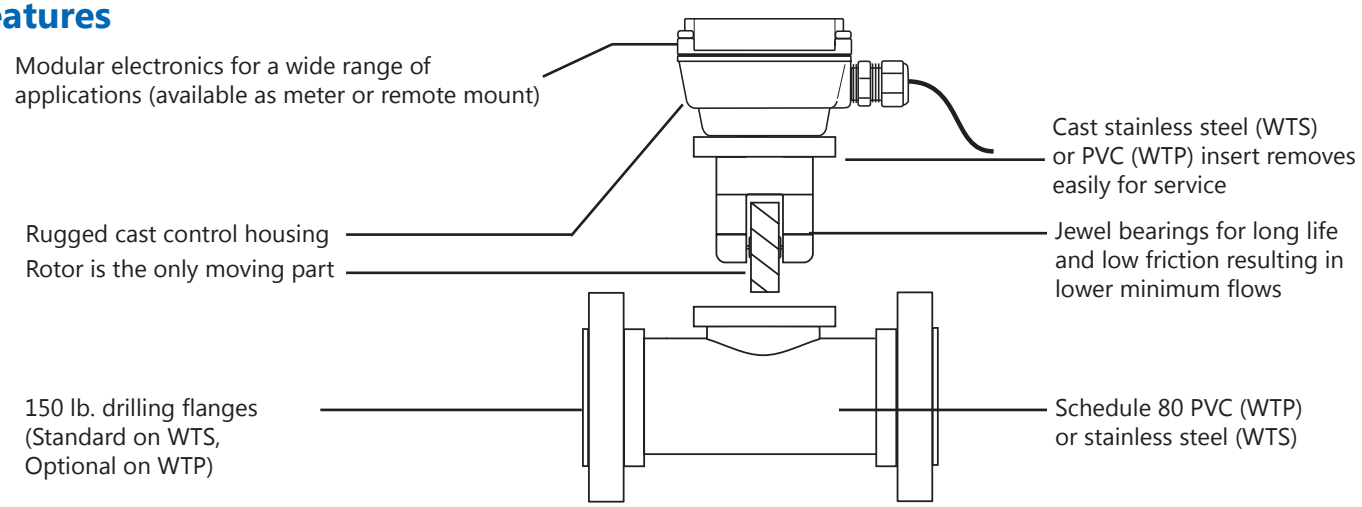
| | | WTP | | | WTS | | | |
|---|---|---|---|---|---|---|---|---|
| **Pipe Sizes** | | 3", 4", 6" | | | 3", 4", 6", 8" | | | |
| **Materials** | **Meter Body** | PVC Schedule 80 fittings | | | 304 Stainless steel (316 SS optional) | | | |
| | **Turbine Insert** | PVC | | | CF8 cast stainless | | | |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

*Kynar is a registered trademark of Arkema, Inc.*
** Specifications subject to change. Please consult our web site for current data (seametrics.com).*

## Electronics Options Specifications*

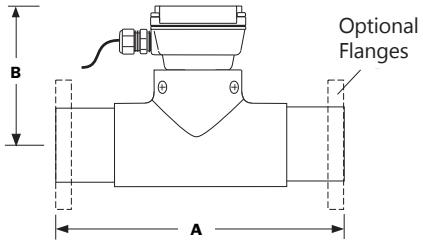
| | WT100 | WT102 | WT103 | WT107 | WT109 |
|---|---|---|---|---|---|
| **Power** | 6-36 Vdc | 24-36 Vdc (isolated) | 7-30 Vdc | Battery (Lithium "C", 3.6V, replaceable) | 7-30 Vdc, 4mA (4-20 mA when loop powered) |
| **Electronic Display** | | A055 | FT430 | FT450 | FT440 |
| **Pulse Out** | 0-160 pulse/sec. current sinking | | Pulse scaled and pulse pass through | Pulse scaled | Pulse scaled |
| **Analog Out** | | 4-20 mA Loop | | | 4-20 mA Loop |
| **Rate** | | | 5-digit autorange | 5-digit autorange | 5-digit autorange |
| **Total** | | | 8-digit | 8-digit | 8-digit |
| **Memory** | | | Non-volatile | Non-volatile | Non-volatile |
| **Response Time** | | 2-60 seconds, 90% full scale, (depending on input averaging) | | | |
| **High/Low Alarm** | | | Selectable on one output | Selectable on one output | Selectable on one output |
| **Environmental** | | NEMA 4X, IP66 | NEMA 4X, IP67 | NEMA 4X, IP67 | NEMA 4X, IP67 |
| **Regulatory** | CE Mark | CE Mark | CE Mark | CE Mark | CE Mark |

## Features




## Dimensions

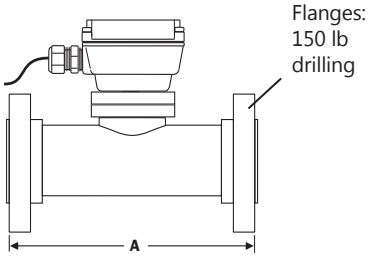
**WTP METER**




| Meter Size | Dim A | Dim B |
|---|---|---|
| 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.*

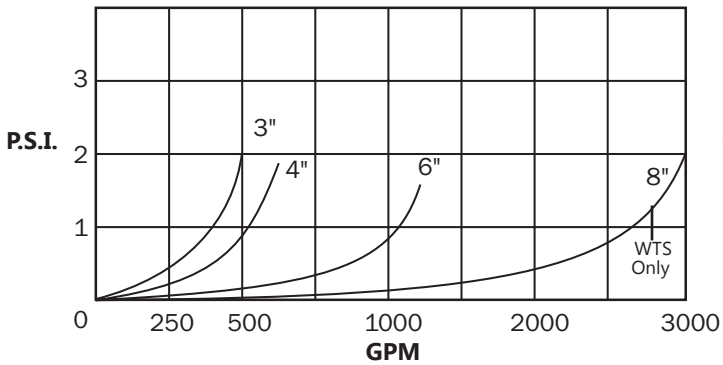
**WTS METER**



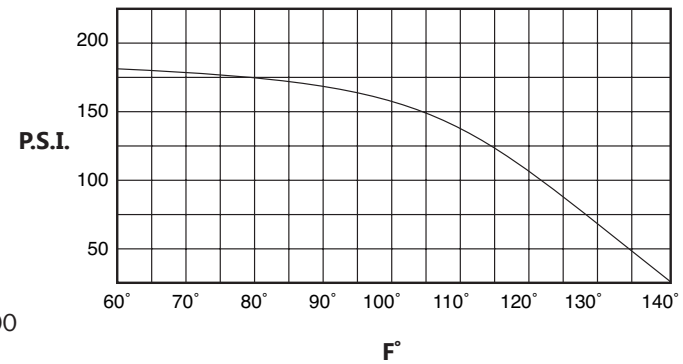

| Meter Size | Dim A |
|---|---|
| 3″ | 12″ |
| 4″ | 14″ |
| 6″ | 18″ |
| 8″ | 20″ |

## Pressure and Temperature

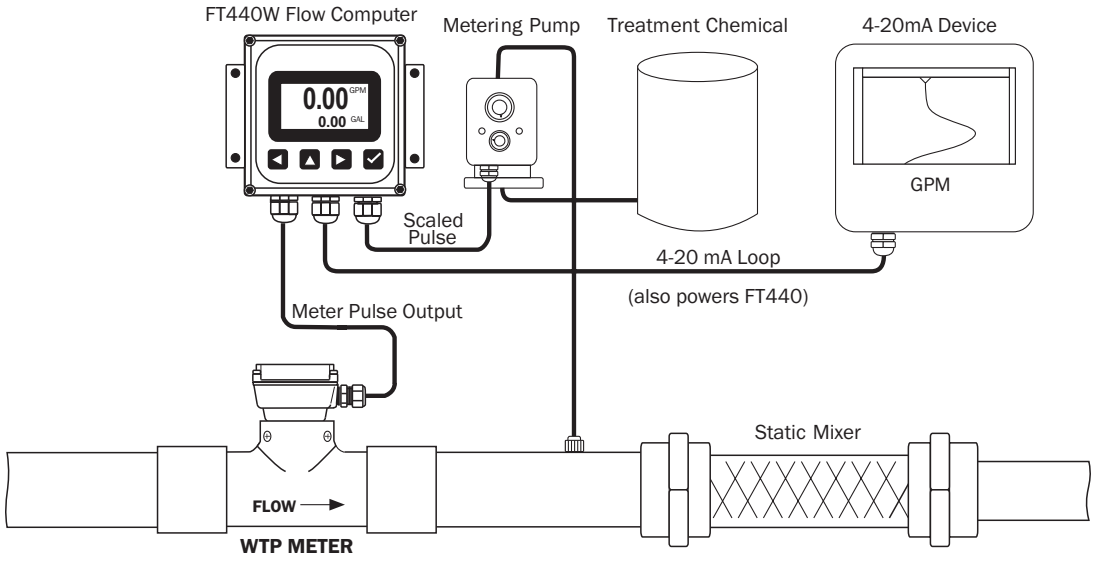
**Pressure Loss Chart (WTP & WTS)**




**Pressure vs. Temperature (WTP Only)**



## Typical Application




## How to Order

**MODEL**

PVC = **WTP**

Stainless Steel = **WTS**

**ELECTRONICS**

Pulse Output = **100**

4-20 mA only = **102**

Rate+Total/Pulse Scaled/ Pulse Pass Through = **103**

Battery-Powered/Pulse = **107**

Rate+Total/Pulse Scaled/ 4-20mA = **109**

**SIZE**

3″ = **-300**

4″ = **-400**

6″ = **-600**

8″ = **-800** *(WTS Only)*

**OPTIONS**

Micropower Sensor = **-04** *(For use with FT450W)*

316 SS *(WTS only)* = **-14**

Flanged Ends *(WTP)* = **-18**

Tamper-evident = **-32**

Non-resettable total = **-64**

Hinged Display Cover = **-126**

**ACCESSORIES**

Remote Rate and Total Indicator = **FT430W/440W**

Remote Blind 4-20 mA Converter = **AO55W**

Remote Battery-Operated Rate/Totalizer = **FT450W**

Remote Pulse Divider = **PD10W**