

# Water Flow Meter

## TX100/200 Adjustable Turbine Flow Sensor

The TX100/200 series, adjustable insertion turbine flow sensors, use ruby bearings and a non-drag pick-off to achieve a wide flow range and long life. A sensor detects the passage of miniature magnets in the rotor blades (magnets are in 2 or 4 blades only). The resulting square-wave signal can be sent for hundreds of feet without a transmitter, over unshielded cable. This square-wave signal can be sent directly to a PLC or other control, or can be converted using a blind 4-20mA output or flow rate and totalizer display.



Global TX101S shown with optional FT415M Display

### OPERATION

Designed for modularity and versatility, the TX100/200 series adjustable insertion turbine flow sensors have a current sinking pulse output which can be combined with appropriate transmitter or indicator, depending on the application. For rate and total display, the FT415 or FT420 flow indicator can be mounted directly on the TX100/200 series adjustable insertion turbine flow sensors. For a 4-20mA analog output only, the AO55 blind 4-20mA converter can be mounted directly onto the meter.

The installation fitting of the TX100/200 series adjustable turbine flow sensor is standard 1-1/2" male NPT, and can be directly threaded into ordinary saddles or threaded weld fittings. A depth adjustment system allows two basic sizes to cover pipe sizes from 3" to 48".

### OPTIONS

#### TX101B Adjustable Turbine Insertion Flow Sensors

Brass adjustable turbine insertion flow sensors, for 3" to 10" pipe diameter.

#### TX101S Adjustable Turbine Insertion Flow Sensors

Stainless steel adjustable turbine insertion flow sensors, for 3" to 10" pipe diameter.

#### TX201B Adjustable Turbine Insertion Flow Sensors

Brass adjustable turbine insertion flow sensors, for 10" to 48" pipe diameter.

#### TX201S Adjustable Turbine Insertion Flow Sensors

Stainless steel adjustable turbine insertion flow sensors, for 10" to 48" pipe diameter.

### FEATURES

- Two sizes fit entire pipe range: 3" to 10", 10" to 48"
- Turbine rotor to optimize minimum flow limits
- High quality ruby bearings for long life
- One easily replaced moving part
- Uses standard NPT threaded pipe fittings or saddles
- Optional 4-20mA flow rate and totalizer display
- Alternatively, signal can be sent directly to a PLC or other control

### SPECIFICATIONS

<b>Accuracy:</b>	±1% of full scale
<b>Flow Range:</b>	0.2 – 30 ft/sec (.06 – 9.14 m/sec)
<b>Sensor/Output:</b>	Hall Effect Sensor 12 VDC current sinking pulse
<b>Maximum Pipe Pressure:</b>	200 PSI (14 bar)
<b>Maximum Temperature:</b>	200° F (93° C)
<b>Pipe Size</b>	
TX101:	3" – 10"
TX201:	10" – 48"
<b>Fitting Size:</b>	1-1/2" NPT
<b>Insertion Force:</b>	0.44 x pressure in pipe
<b>Power:</b>	5 – 24 VDC, 1.5 mA
<b>Materials</b>	
Sensor Body:	Brass, 316 SS
Rotor:	Polypro
Shaft:	Nickel-bound tungsten carbide
Bearings:	Ruby
Cable:	#22 AWG 3-con 18" (6m)
<b>Maximum Cable Run:</b>	2,000' (650m)

### OPTIONAL OUTPUT METERS/CONVERTERS

#### FT415M Battery Powered Pulse Output and Display

Meter mounted, 3V replaceable Lithium.

#### FT420M Pulse to 4-20mA Output Display

Electromagnetic Flow Meter mounted, 12 – 24 VDC.

#### AO55M Blind 4-20mA Converter

Electromagnetic Flow Meter mounted.

**CALL GEOTECH TODAY (800) 833-7958**

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

(303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242

email: sales@geotechenv.com website: www.geotechenv.com