ECONOMICAL LIQUID TURBINE FLOW METERS

FTB-1500 Series

1 YEAR WARRANTY NIST

Optional

- ±1% of Actual Flow Accuracy
- Pressure Rating Up to 345 bar (5000 psi)
- Stainless Steel Construction with Tungsten Carbide Bearing
- Easy Maintenance Design

FTB-1502, 1.1 to 11 LPM flow meter, shown smaller than actual size.

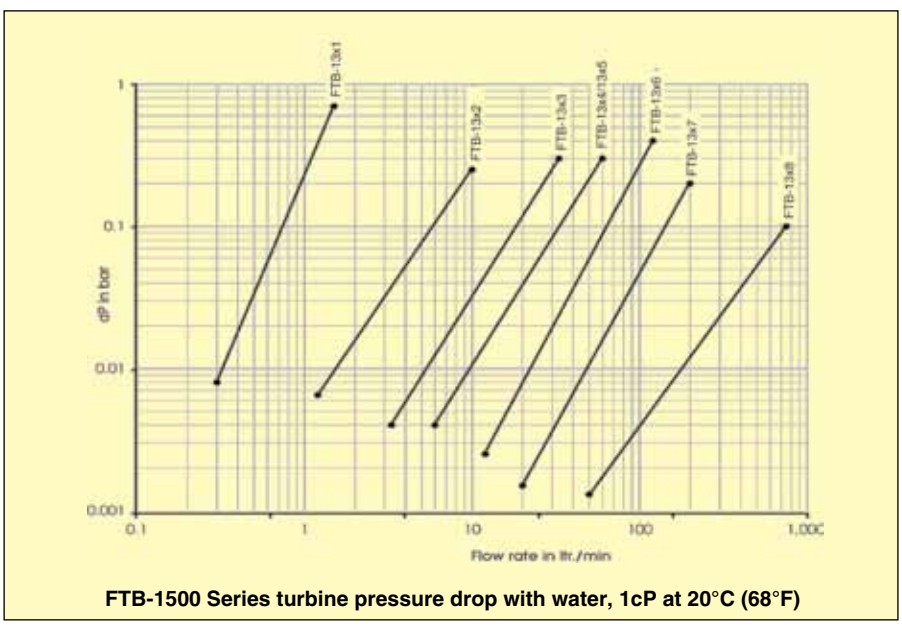
The FTB-1500 Series of turbine flow meters are designed for industrial and laboratory measurement of water, solvents and other low viscosity fluids. The FTB-1300 Series turbine flow meters feature a 316 stainless steel body and a tungsten carbide bearing. They offer good accuracy and reliability with very little pressure drop. The standard turbine flow meters feature threaded end connections.

The FTB-1500 series of turbine flow meters is designed with a wear resistant rotor assembly to provide trouble free operation and a long service life. Fluid moving through the flow meter causes the rotor to turn at a speed proportional to the flow rate, and as the rotor blades cut through the magnetic field of the pickup, an electronic pulse is generated. The pulse train is used to represent the actual flow or total amount of fluid passing through the flow meter. The number of electronic pulses generated per unit volume is known as a K-factor. The value is constant over each flow meter's operating range, and is unique to each meter.

Outputs

Square Wave (FTB-1500 Models):
Supply Voltage: 10 to 28 Vdc
Supply Current: 8 mA @ 12 Vdc, 12 mA @ 24 Vdc
Duty Signal: 50% ±15%
Minimum Signal: 0.5 Hz
Frequency Output: Flow dependent, up to 2000 Hz
Driving Capacity: 50 mA Max resistive load
Output Impedance: ~ 40 Ω, analog switch and self-resetting fuse
Temperature Range: -40 to 85°C (-40 to 185°F)
Cable Length: 60 cm (24")

Current (FTB-1510 Models):
Supply Voltage: 10 to 30 Vdc
Input: 0.25 Hz to 5 KHz
Update Time: 1/F + 25 msec
Amplitude: 1V p-p to 40V p-p
Linearity: ±0.01% of reading
Output: 4 to 20 mA
Enclosure Certifications: NEC Class I Groups C, D; Class II Groups E, F, G (FTB-1310 Series)
Temperature Range: -40 to 85°C (-40 to 185°F)
Electrical Connection: 5 pin M12 (mating connector included)



FTB-1500 Series turbine pressure drop with water, 1cP at 20°C (68°F)

SPECIFICATIONS

Accuracy: ±1% reading
Pressure Max: 345 bar (5000 psi)
Wetted Materials: Stainless Steel (316L, 303 and 1.4122) and carbide with nickel binder (be sure that the operating fluid is compatible with these materials)

Turbine Dimensions: mm (inch)

Model No.	A	B	C	D
FTB-13X1	76.2 (3)	34.29 (1.35)	30.48 (1.20)	½ NPT
FTB-13X2	76.2 (3)	34.29 (1.35)	30.48 (1.20)	½ NPT
FTB-13X3	76.2 (3)	34.29 (1.35)	30.48 (1.20)	½ NPT
FTB-13X4	76.2 (3)	34.29 (1.35)	30.48 (1.20)	½ NPT
FTB-13X5	76.2 (3)	39.37 (1.55)	35.56 (1.40)	1 NPT
FTB-13X6	76.2 (3)	39.37 (1.55)	35.56 (1.40)	1 NPT
FTB-13X7	76.2 (3)	54.61 (2.15)	49.53 (1.95)	1½ NPT
FTB-13X8	101.6 (4)	68.58 (2.70)	64.77 (2.55)	2 NPT

To Order

Model No.	Fittings NPT	Range LPM	GPM	Pulses Per Gallon	Output and Description
FTB-1501	½	0.3 to 1.5	0.08 to 0.4	125,000	Amplified square wave, 5 pin m12 connection
FTB-1502	½	1.1 to 11	0.3 to 3	48,000	
FTB-1503	½	3.4 to 34	0.9 to 9	15,000	
FTB-1504	½	6 to 60	1.6 to 16	10,500	
FTB-1505	1	6 to 60	1.6 to 16	10,500	
FTB-1506	1	11 to 121	3 to 32	1450	
FTB-1506A	1	11 to 121	3 to 32	2900	
FTB-1507	1½	19 to 200	5 to 53	800	
FTB-1508	2	49 to 757	13 to 200	100	
FTB-1511	½	0.3 to 1.5	0.08 to 0.4	4 to 20 mA industrial head electronics enclosure **M12 CONNECTOR** recommend (mating connector included)	
FTB-1512	½	1.1 to 11	0.3 to 3		
FTB-1513	½	3.4 to 34	0.9 to 9		
FTB-1514	½	6 to 60	1.6 to 16		
FTB-1515	1	6 to 60	1.6 to 16		
FTB-1515A	1	11 to 121	3 to 32		
FTB-1517	1½	19 to 200	5 to 53		
FTB-1518	2	49 to 757	13 to 200		

Accessories

Model No.	Description
DPF701	6-digit rate or total display

Comes complete with operator's manual and certificate. Certificate has no points and is not NIST.
*For a 5-point NIST certificate, add suffix **"-NIST"** to model number, for additional cost.*
***Ordering Examples: FTB-1501,** ½ male NPT turbine, 0.3 to 1.5 LPM (0.08 to 0.4 GPM) range with square wave frequency output and **DPF701,** ⅛ DIN digital panel LED display.*
***FTB-1313,** stainless turbine with linear 4 to 20 mA output, ½ NPT connections and a range of 3.4 to 34 LPM (0.9 to 9 GPM).*