

TURBINE FLOWMETERS

FTB700 Series



- ✓ Choice of PVC or Carbon Steel
- ✓ High-Accuracy Machined Turbine Internals Removable with Meter in Line
- ✓ Standard Meter Bodies are Flanged

OMEGA® FTB700 Series turbine meters have a unique system of precisely-machined helical rotors and high-quality jewel bearings. The rotor is the only moving part. Small magnets on the rotor hub are electronically detected by a solid state Hall-effect sensor outside the wetted area. The turbine rotor uses journal-type sapphire and ruby bearings for minimum friction and maximum life. These bearings are ideal for long life in water and water-based fluids, and they have exceptional low-flow characteristics. The entire rotor assembly (rotor, hubs, bearings, rotor strut) can be removed from the meter as a single unit without removing the meter from the pipe.

SPECIFICATIONS

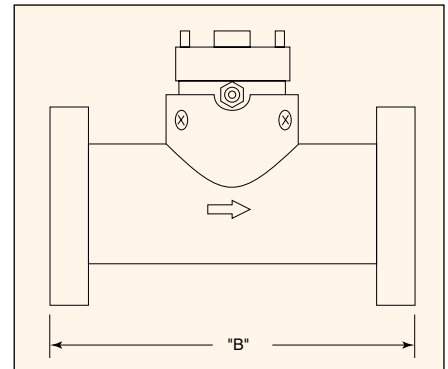
Maximum Working Pressure: 150 psi PVC, 200 psi carbon steel
Maximum Temperature:
 Carbon Steel: 93°C (200°F)
 PVC: 49°C (120°F)
Accuracy: ±1% FS
Signal: Squarewave pulse
Power: 6 to 24 Vdc

Materials

Meter Body: PVC or carbon steel
Flanges: Van Stone w/steel backing flange for PVC bodies, 150# ANSI for carbon steel bodies
Turbine Rotor: PVDF
Rotor Shafts: Zirconia ceramic
Bearings: Sapphire journal, ruby ball
FTB700-T (Optional Blind Transmitter)
Output: 4 to 20 mA
Loop Power: 12 to 26 Vdc (isolated)
Accuracy: ±1%
Response Time: 3 sec, 95% FS



FTB730-C, shown smaller than actual size.



Flowmeter Dimensions: mm (inch)

Pipe Size	51 (2)	76 (3)	102 (4)	152 (6)	204 (8)
"B"	254 (10)	305 (12)	356 (14)	457 (18)	508 (20)

Temperature/Pressure for PVC Body

Operating Temp °C (°F)	Maximum Operating Pressure bar (psi)
24 (75)	10 (150)
38 (100)	9 (124)
49 (120)	5 (75)
54 (130)	3 (50)

To Order Visit omega.com/ftb700 for Pricing and Details				
Model No. PVC	Model No. Carbon Steel	Flow (GPM)	Pulses/Gal	Pipe Size (inch)
FTB720	FTB720-C	2 to 150	60	2
FTB730	FTB730-C	3 to 400	10	3
FTB740	FTB740-C	6 to 600	5	4
FTB760	FTB760-C	12 to 1200	2	6
—	FTB780-C	30 to 3000	2	8

Compatible meters; DPF12, DPF701, DPF401, DPF5200, DPF6200, DPF9100, DPF82, DPF70, visit omega.com

Accessories

Model No.	Description
FTB700-D*	Rate and total display with 4 to 20 mA transmitter (meter mount)
FTB700D-WMB*	Wall mount bracket for FTB700-D
FTB700-T	Blind 4 to 20 mA transmitter
PSU-93	24 Vdc power supply

Comes complete with 5.5 m (18') cable and operator's manual.

* Shown on next page.

Ordering Examples: FTB730, PVC meter, 3 to 400 GPM range.
 FTB720, PVC meter, 2 to 150 GPM range.

RATE AND TOTAL DISPLAY FOR THE FTB700 SERIES

FTB700-D Series

- ✓ Simple Setup
- ✓ Loop Powered
- ✓ Remote or Flow Sensor Mounted Indicator
- ✓ Rugged Metallic Housing
- ✓ Non-volatile Memory

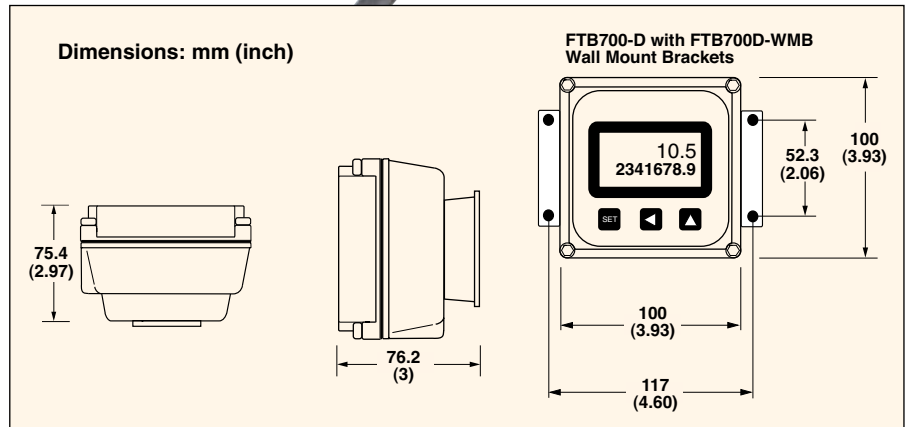


The FTB700-D Series flow displays are microcontroller-based indicator/transmitters that display flow rate and total and provide output signals. The FTB700-D is powered by external DC voltage and has both pulse and 4 to 20 mA analog outputs. When the FTB700-D is being used in the 4 to 20 mA mode, it is a "two-wire" or "loop-powered" device, meaning that the 4 to 20 mA output signal doubles as its power supply.

The addition of a dual-relay output board (-R2) allows for certain applications requiring contact output isolation (e.g., certain metering pumps and water treatment controls). Dual solid state relays provide exactly the same pulse output as the standard unit, and each can signal one external device.

The FTB700-D can be mounted on the meter (-M) or remotely wall mounted with the brackets provided (FTB700D-W). Housings for the "-W" and "-M" models are rugged cast aluminum, potted and gasketed for maximum environmental protection. A membrane keypad allows settings to be changed without removing the cover. (Password protection, a standard feature, can be used to prevent settings from being changed.)

FTB700-D see accessory chart on previous page, shown smaller than actual size.



SPECIFICATIONS

Power: 12 to 30 Vdc, (4 to 20 mA)

Display Rate: 6-digit autorange, 1/2" character height

Total: 8-digit, 5/16" character height

Outputs Current Sinking Pulse: Scaled pulse output (0.1 second duration 6.1 Hz maximum) (or high alarm output or low alarm output). Sensor pass-through pulse output (unscaled)

Analog: 4 to 20 mA

Pulse Output Range:

0.1 - 9999999.9 units/pulse

Input: 5V pulse or contact closure

Input Range: 1.0 - 1,500 pulses/second

K-Factor Range: 0.001 - 99999.999

Flow Alarm Output Range:

0.01 - 999999.99

Operating Temperature: -30 to 65°C (-22 to 148°F)

Environmental: NEMA 4X, (IP66)

Regulatory: CE

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• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

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• Heaters

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