

ECONOMICAL BALL BEARING GAS TURBINE FLOWMETERS with Male NPT Fittings

FTB-930/940 Series Starts at

\$1060



- ✓ **±1% of Reading Accuracy**
- ✓ **Ball Bearing Design for Economy**
- ✓ **440C Bearing Retainers for Durability**
- ✓ **Ball Bearings Field Replaceable Without Loss of Calibration**
- ✓ **Deflector Cones Stabilize Low-Mass Rotor for Increased Bearing Life**
- ✓ **NIST Certificate Supplied Standard**

The OMEGA® FTB-930 and FTB-940 Series turbine meters have male NPT end fittings for easy connections. They are suitable for use with gases with a minimum density of 0.025 lb/ft³ (air at STP is 0.0752 lb/ft³). These units come supplied with a mating 2-wire connector and can be supplied with integrally mounted FLSC-60 Series signal conditioners to provide 4 to 20 mA, 0 to 5V, or amplified pulse outputs. These turbine gas meters are intended for clean service only; where there is any

doubt about the fluid, strainers are recommended.

OMEGA® precision turbine gas flowmeters are designed to measure actual cubic feet or actual volume passing through the meter. Before sizing a flowmeter, it is necessary to convert flow units (*i.e.*, SCFM, LPM, etc.) to actual units. To convert to actual measured volume (ACFM) from standard volume (SCFM), use the following formula:

$$\text{ACFM} = \text{SCFM} \times 14.7/\text{Pa} \times \text{Ta}/530$$

where:

ACFM = Actual cubic feet per minute of measured gas flow

SCFM = Standard cubic feet per minute gas flow

Pa = Operating pressure (psia) in = (psig + 14.7)

Ta = Temperature in degrees Rankine = (°F + 460)

SPECIFICATIONS

Accuracy: ±1.0% of reading

Repeatability: ±0.25%

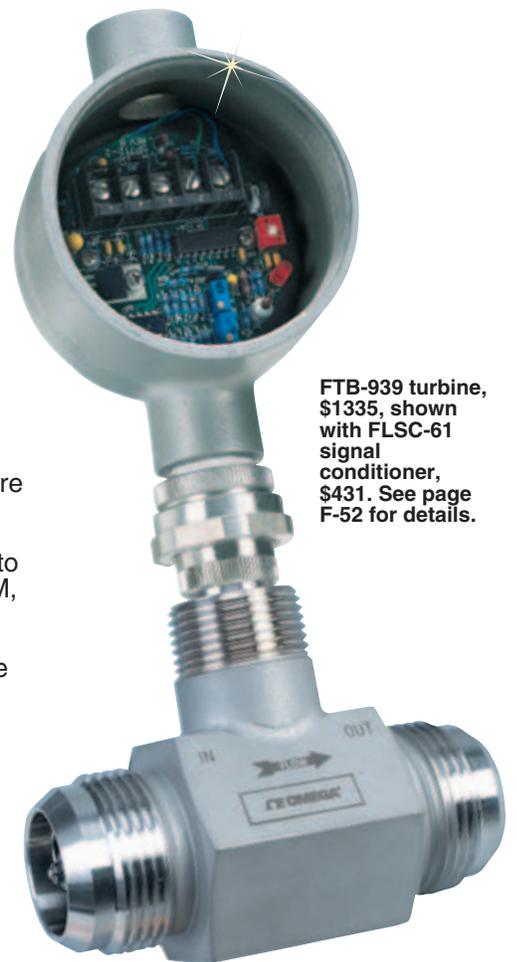
Materials of Construction:

Body: 304 stainless steel

Rotor: 17-4 PH SS

Bearings: 440C stainless steel

Output: 30 mV p-p sinewave min.



FTB-939 turbine, \$1335, shown with FLSC-61 signal conditioner, \$431. See page F-52 for details.

Compatible Meters: DPF701 (page M-5), DPF402 (page M-11), DPF70 with FLSC-AMP (page M-22), DPF10 (page M-23), FC21, 22 (page M-27)

Electrical: 2-wire connector included

Max Temp. Range:

-268 to 232°C (-450 to 450°F)

-268 to 65°C (-450 to 150°F) for FTB-931T

Maximum Pressure Drop:

Gas density in lb/ft³ x 4 (psid)

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Model No.	Price	Maximum Linear Range (ACFM)	Nominal K-Factor (p/ACF)	Operating Pressure (psi)	Length mm (in)	End Connections MNPT (in)	Approx. Weight. kg (lb)
FTB-931B	\$1060	0.35 to 3.5	15,000	5000	76 (3)	1/2	0.4 (1)
FTB-932	1060	0.75 to 5	6000	5000	76 (3)	1/2	0.4 (1)
FTB-933	1060	1 to 10	3160	5000	76 (3)	1/2	0.4 (1)
FTB-934	1060	2 to 20	1875	5000	76 (3)	1/2	0.4 (1)
FTB-935	1060	2.5 to 28	1035	5000	81 (3.25)	3/4	0.4 (1)
FTB-936	1065	4 to 60	500	3500	89 (3.50)	1	0.9 (2)
FTB-937	1096	6 to 100	322	3000	99 (3.88)	1 1/4	0.9 (2)
FTB-938	1205	8 to 130	230	3000	111 (4.38)	1 1/2	1.4 (3)
FTB-939	1335	15 to 250	133	2000	121 (4.75)	2	1.8 (4)
FTB-940	1550	25 to 450	75	1500	154 (6.06)	2 1/2	2.3 (5)
FTB-941	1997	40 to 650	46.1	1000	254 (10)	3	3.2 (7)

Comes complete with mating connector, operator's manual and NIST certificate for air.

Ordering Examples: To order a scaled system that includes signal conditioner, turbine meter with MNPT end fittings, specify model number SYS/FTB-931B/FLSC-61, FTB-931B flowmeter with 0.35 to 3.5 ACFM range, and FLSC-61, 0 to 5V/10V signal conditioner, \$1060 + 431 = \$1491. SYS/FTB-939/FLSC-62A, FTB-939 flowmeter with 15 to 250 ACFM range, and FLSC-62A, 4 to 20 mA signal conditioner, \$1335 + 431 = \$1766.



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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

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters