

ECONOMICAL BALL BEARING GAS TURBINE FLOWMETERS with Male NPT Fittings

FTB-930/940 Series



- ✓ ±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:

$$ACFM = SCFM \times 14.7 / Pa \times Ta / 530$$

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%

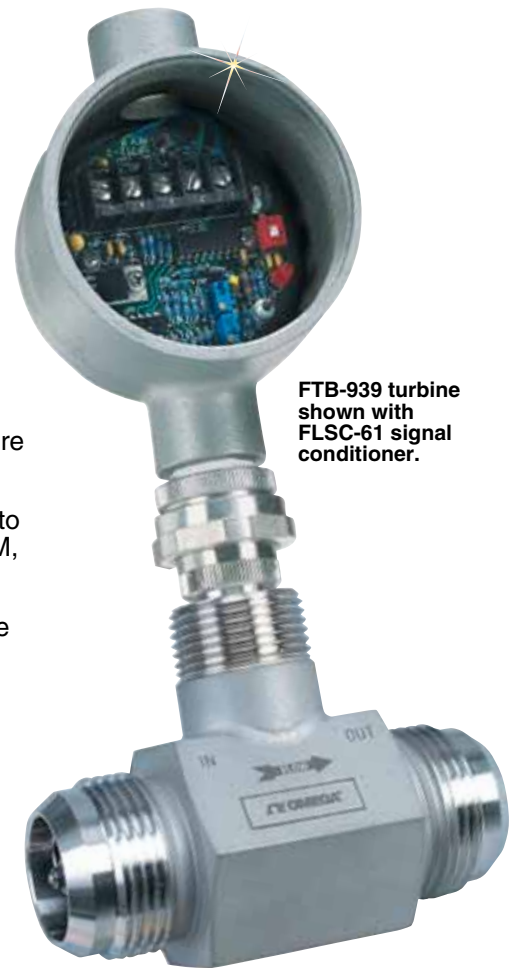
Materials of Construction:

Body: 304/316 stainless steel

Rotor: 17-4 PH SS

Bearings: 440C stainless steel

Output: 30 mV p-p sinewave min



FTB-939 turbine shown with FLSC-61 signal conditioner.

Compatible Meters: DPF701, DPF402, DPF70 with FLSC-AMP, DPF10, FC21, 22
Visit us online.

Electrical: 2-wire connector included

Maximum Temp. Range: -267 to 232°C (-450 to 450°F)

Maximum Pressure Drop: Gas density in lb/ft³ x 4 (psid)

To Order

Model No.	Maximum Linear Range (ACFM)	Nominal K-Factor (p/ACF)	Operating Pressure (psi)	Length mm (inch)	End Connections MNPT (inch)	Approx Weight kg (lb)
FTB-931B	0.35 to 3.5	24,200	5000	76 (3)	1/2	1 (2)
FTB-932	0.75 to 5	14,890	5000	76 (3)	1/2	1 (2)
FTB-933	1 to 10	14,580	5000	76 (3)	1/2	1 (2)
FTB-934	2 to 20	8790	5000	76 (3)	1/2	1 (2)
FTB-935	2.5 to 28	3660	4000	83 (3.25)	3/4	2 (4)
FTB-936	4 to 60	880	3000	89 (3.50)	1	2.5 (5)
FTB-937	6 to 100	720	2500	98 (3.88)	1 1/4	3 (7)
FTB-938	8 to 130	430	2000	111 (4.38)	1 1/2	3.5 (8)
FTB-939	15 to 250	230	1500	121 (4.75)	2	6 (13)
FTB-940	25 to 450	135	1500	154 (6.06)	2 1/2	8 (18)
FTB-941	40 to 650	74	1250	254 (10)	3	8.5 (19)
FTB-942	75 to 1200	4.6	1000	305 (12)	4	16 (36)

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.

SYS/FTB-939/FLSC-62A, FTB-939 flowmeter with 15 to 250 ACFM range, and **FLSC-62A**, 4 to 20 mA signal conditioner.