

Flow Gator

Low Cost, High Accuracy Field Flow Calibrator

The Flow Gator is a portable, documenting, field flow calibrator which reads signals from a master flow meter, a flow meter under test and fluid temperature. With this data, the Flow Gator calculates and compares the precise flow rate from the master meter and unit under test. Automatic viscosity measurement is available when using the Exact Flow AV turbine meter as a master meter. The Flow Gator is the choice for precise, traceable, portable field flow calibrations in an easy to use and understand package.

Features

- Rugged, Lightweight, Compact
- Easy-to-use Menu System
- Field Programmable
- Automatic Viscosity and Density Correction
- ARP4990 Calculations
- USB data storage and printing
- NIST traceable
- Stores 5 master meters
- Stores 5 fluid property tables
- On-board memory data storage

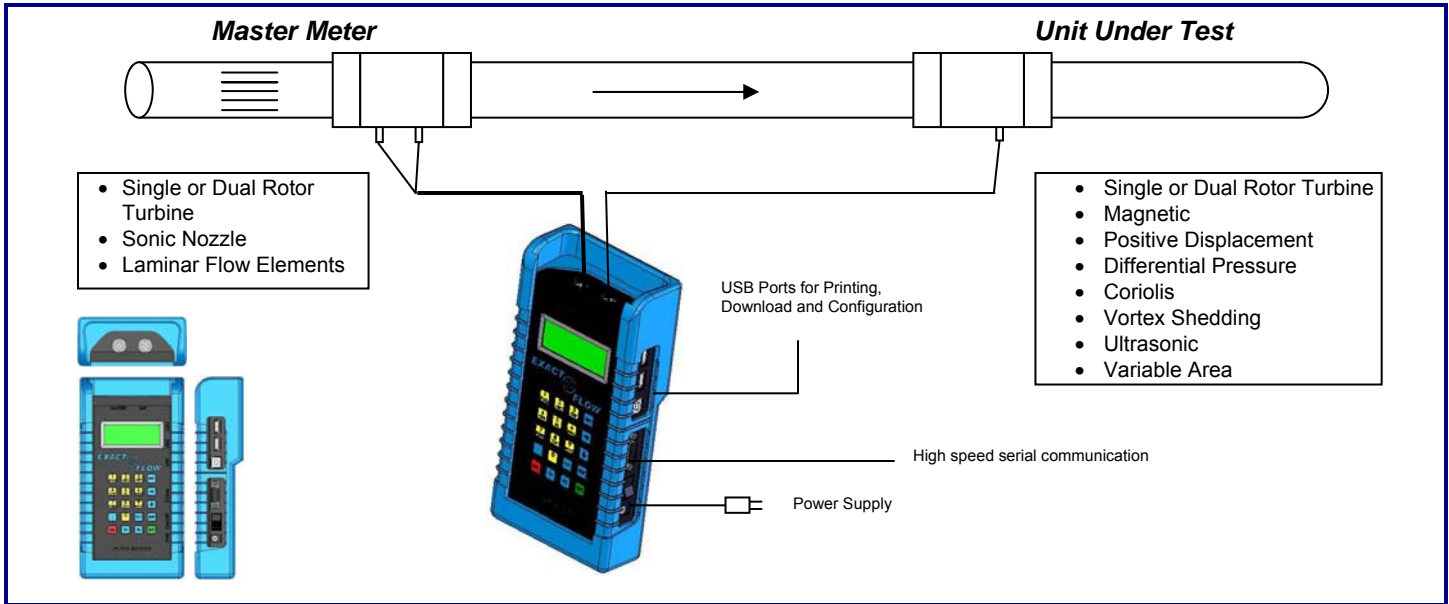


Highest Accuracy Available

- Frequency: $\pm 0.001\%$ of reading.
Period ± 25 nanoseconds
- Analog: $\pm 0.02\%$ of reading.
16-bit resolution
- System accuracy to $\pm 0.15\%$ of reading
(Dependent on Master Meter calibration)

- Store, retrieve and view field data instantly
- High Speed Communication
- GUI software is provided with every Flow Gator
- Options:
 - Battery
 - Printer
 - Memory
 - Carrying case





Flow Gator Specifications

Physical

- Dim: 8.5" x 4.25" x 2.25"
- Input power: 100-240 VAC
- Weight: 1.5 lb

Frequency Inputs

- Accurate to ± 25 nanoseconds
- 4 frequency inputs
- Pulse TTL
 - Frequency: 1 Hz-16 kHz
- RF Carrier
 - Frequency: 5 Hz-3 kHz
 - Inductance: 1 or 0.033 mH
 - Resistance: 4 or 10 Ω
 - Oscillator: 55-65 kHz

Analog Inputs

- Accurate to 16-bit resolution
- 3 analog inputs
 - Thermistor 10 k Ω or RTD 100 Ω
 - Current 4-20 mA
 - Voltage 0-10 or 0-5 VDC

Front Panel

- Display
 - LCD Backlit
 - 4 line x 20 characters
- Data Entry
 - 20 keys
 - Menu driven structure

Master Meters

- Single or dual rotor turbine meters
- Sonic nozzles
- Laminar flow elements
- Stores 5 master meter tables
 - Description
 - 200 points meter table
- Auto-Viscosity available

Unit Under Test (UUT)

- Meter types:
 - Pulse output flow meters
 - Analog output flow meters
 - Visual indication meters
 - Raw or Linearized data

Fluid Properties

- Stores 5 fluid property tables
 - Description by fluid name
 - 100 points kinematic viscosity table
 - 25 points density table

Calibration Functions

- On-board memory
- Each calibration point contains data, i.e. from a turbine meter:
 - Master flow rate
 - UUT Frequency
 - UUT Roshko
 - UUT Strouhal
 - Temperature

- Viscosity
- Density
- Stores 10 forty-point calibrations
 - Meter k-factor at each test point
 - Average k-factor for complete test
- Selectable units
 - Flow rate: GPM, LPM, PPM, PPH
 - Temperature: $^{\circ}$ F, $^{\circ}$ C, R, K

Environment

- Temperature
 - Operating: -40 - 140 $^{\circ}$ F
 - Storage: -67 - 257 $^{\circ}$ F
- Humidity 0-85% RH non-condensing

Communication

- USB port
 - Downloading calibration data to optional USB memory
 - Printing calibration data with optional USB printer
- RS485 or RS232
 - Bi-directional communication
 - GUI software included

Ordering information

Model numbers:

- | | |
|---------|-----------------------------|
| EFGTR-T | Turbine meter master |
| EFGTR-S | Sonic nozzle master |
| EFGTR-L | Laminar Flow Element master |

Options:

- | | |
|----------|---------------------------|
| EFGTR-PS | Sonic nozzle pressure pod |
| EFGTR-PL | Laminar flow pressure pod |
| EFGTR-BT | Battery power pod |
| EFGTR-CL | Calibration check pod |
| EFGTR-CC | Carrying case |