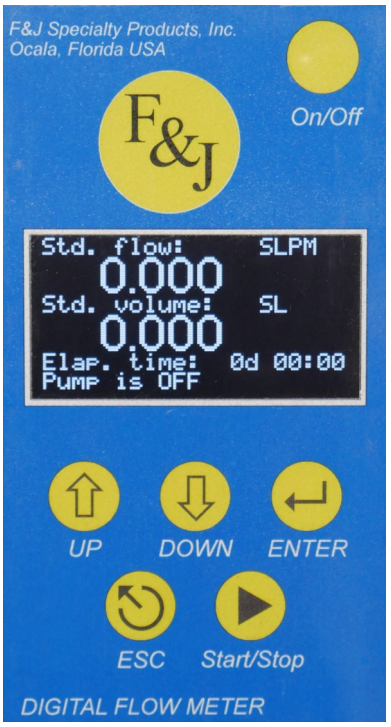
Portable Low Volume Air Sampler with Digital Flow Meter Model DF-1E-2G Series

STANDARD FEATURES:

- Bright OLED display
- Flowrate and volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
  Classical STP 0ºC, 760 mmHg
  Normal T and P 20ºC, 760 mmHg
  Modified Normal T and P 21°C, 760mmHg
  Standard Ambient T and P 25ºC, 760 mmHg
- Reference and ambient flow conditions are displayed
- Elapsed time meter
- Storage of elapsed time and volume in the event of power outage
- Auto Shut-off on time or volume
- Choices of flow/volume units:
  SLPM SL
  SCMH SCM
  SCFM SCF
- Display in English or metric units set at factory
- 2nd Generation State of the Art microprocessor electronics
- Auto zero calibration feature of flow sensor
- Flow rate accuracy within ± 4% F.S.
- 200 – 240 VAC, 50/60Hz; single phase
- Internal Data Storage Downloadable as (.csv) file
- Data download via Type A USB port wired connection or through Bluetooth with optional Bluetooth Dongle for PC Device



DFM Main Screen Display

GENERAL DESCRIPTION:

The Model DF-1E-2G portable air sampling system with a digital flowmeter is a low-volume air sampler consisting of oilless, carbon vane vacuum pump, with a mechanical constant air flow regulator for use where a nearly constant air flow is desirable. The regulator holds a constant pressure drop across an in-line orifice by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum pressure drop at all times, permitting it to run cooler, thus extending its service life. The oilless pump requires no lubrication to maintain optimal efficiency during its service life. The pump is mounted on a base with four rubber feet. A handle is provided on the chassis to facilitate transportation.

The DF-1E-2G Portable Air Sampling System is designed for continuous indoor use. Please consult the product specifications for the design temperature range and the installation category. Standard product displays flow rate, elapsed time and totalized volume by operator selection.

The typical operating flow range is 0.5 to 4 CFM (14 – 115 LPM).

SPECIFICATIONS:

PUMP TYPE: Oilless, carbon vane 1/4 HP, 50/60 Hz, 1 PH
MAXIMUM CAPACITY: 4 CFM (115 LPM) at 0" Hg Pressure drop
ULTIMATE VACUUM: 25" (635 mm) Hg at sea level
POWER REQUIREMENTS: 200 – 240VAC; 50/60 Hz; 3 amperes, single phase
CIRCUIT BREAKER PROTECTION: 6 amperes
ELECTRICAL CORD: All-temperature, 3-wire, 14 gauge
THERMAL OVERLOAD PROTECTION: Furnished as an integral part of the motor
CONSTANT AIRFLOW REGULATOR: Aluminum Construction with silicone diaphragm; adjustable from 0.5 to 4 CFM (14-115 LPM)
HANDLE: Black Painted Steel
DIMENSIONS: 16"L×7 ½"W×13 ¼"H (40,6×19×33,6 cm)
NOISE LEVEL: Average dB 67.0 @ 1 meter
WEIGHT: 36 lbs. (16,36 kg)
INSTALLATION CATEGORY: Pollution Degree 2
OPERATING TEMPERATURE RANGE: 32- 104ºF (0 - 40ºC)

ELECTRONIC SPECIFICATIONS:

MEASUREMENT ACCURACY:

Air flow	± 4.0% of full scale
Temperature	± 2ºF (1.1ºC)
Barometric Pressure	2% over measured range

CALIBRATION: Factory calibration 1 per year
ON-BOARD CALCULATIONS:
Flow calculation from differential pressure value using best fit curve method
Flow correction for standard temperature and pressure
Auto-zero correction utilizing electro-pneumatic method to compensate for offset and drift (automatic, once every minute)

OPTIONS:

Bluetooth Dongle for PC Device (P/N: BTDG)

COMBINATION FILTER HOLDER:

Durable plastic combination filter holders for F&J Model B, C or M charcoal cartridges and 47 mm, 2" or 50 mm diameter particulate filter paper are available. All models have quick-disconnect function.

STANDARD COMBINATION FILTER HOLDERS:

FILTER HOLDER MODEL	CHARCOAL CARTRIDGE DIMENSIONS	PARTICULATE PAPER DIAMETER
FJ-05P	F&J Model B	2" or 50 mm
FJ-21P	F&J Model C	2" or 50 mm
FJ-35P	F&J Model B	47 mm
FJ-46P	F&J Model C	47 mm
FJ-51P	F&J Model M	2" or 50 mm
FJ-53P	F&J Model M	47 mm

PUMP CURVE

Top line on curve is for 60-cycle performance
Bottom line on curve is for 50-cycle performance

1425 RPM @ 50Hz
1725 RPM @ 60Hz