

F&J SPECIALTY PRODUCTS, INC.

The Nucleus of Quality Air Monitoring Programs

PORTABLE LOW VOLUME AIR SAMPLER w/ DIGITAL FLOWMETER MODEL DF-134E

NOTABLE FEATURES:

- Display in English or metric units set at factory
- Choices of flow/volume units:
 - SLPM SL
 - SCMH SCM
 - SCFM SCF
- State of the Art microprocessor electronics
- Flowrate and volume totalizations displayed are corrected to a factory settable reference Temperature and Pressure (4 options available)
 - Classical STP 0°C, 1 Atm
 - Normal T and P 20°C, 1 Atm
 - Modified Normal T and P 70°F, 1 Atm
 - Standard Ambient T and P 25°C, 1 Atm
- Ambient or reference flow is selectable by operator
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within $\pm 2\%$ F.S.
- RS-232 Communication Port w/Operator selectable download frequency for real-time data
- Auto shut-off on time or volume
- 220-240VAC, 50/60Hz; single phase
- **OPTIONS**
 - 232FCDS Data Storage Device
 - 372239 2 GB Secure Digital Card
 - SDDR-199-A20 FlashCard Reader



GENERAL DESCRIPTION:

The Model DF-134E portable air sampling system with a digital flowmeter is a low-volume air sampler consisting of an oil-less, carbon vane vacuum pump, with a 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 oil-less 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-134E 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.

The typical operating flow range is 1 to 8 CFM (28 – 226 LPM).

Rev.: 02 October 2019

DF-134E DIGITAL LOW VOLUME AIR SAMPLER (200 – 240 VAC)

SPECIFICATIONS:

PUMP TYPE: Oil-less, carbon vane 3/4 HP, 1425 RPM @ 60 Hz

MAXIMUM CAPACITY: 8 CFM (226 LPM) at 0" Hg
Pressure drop

ULTIMATE VACUUM: 25" (635 mm) Hg at sea level

POWER REQUIREMENTS: 220 – 240VAC; 50/60 Hz; 6 amperes, single phase

CIRCUIT BREAKER PROTECTION: 8 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 1 to 8 CFM (28 - 226 LPM)

HANDLE: Black Painted Steel

DIMENSIONS: 56L x 20W x 43 cm H (22"L x 8 1/2"W x 18"H)

AVERAGE dB: 72.5

WEIGHT: 29,1 kg (64 lbs.)

OPERATING TEMPERATURES:

Pump cold start: 32°- 104°F (0°- 40°C)

Pump warm re-start: 32° – 122°F (0° – 50°C)

STORAGE TEMPERATURE: 32°- 122°F (0° - 70°C)

INSTALLATION CATEGORY: Pollution Degree 2

ELECTRONIC SPECIFICATIONS:

MEASUREMENT ACCURACY:

Air flow ± 2% of full scale

Temperature ± 2°F (1,1°C)

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 to reference temperature and pressure or ambient conditions
- Auto-zero correction utilizing electro-pneumatic method to compensate for offset and drift (automatic, once every minute)

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.

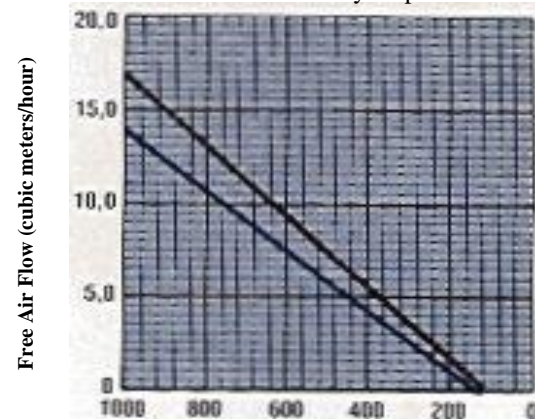
STANDARD COMBINATION FILTER HOLDERS:

<u>FILTER HOLDER MODEL</u>	<u>CHARCOAL CARTRIDGE DIMENSIONS</u>	<u>PARTICULATE PAPER DIAMETER</u>
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

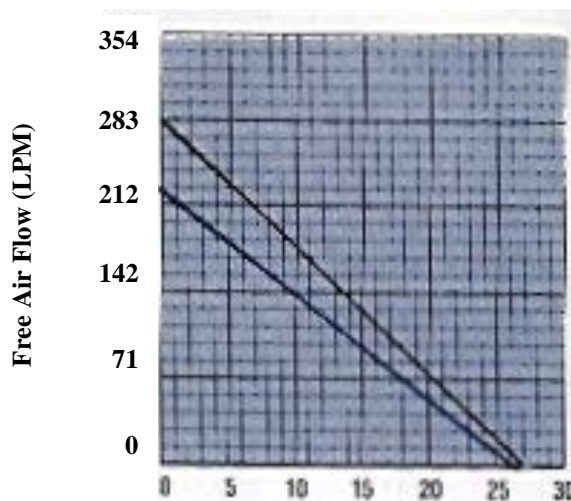
PUMP CURVE

Top line on curve is for 60-cycle performance

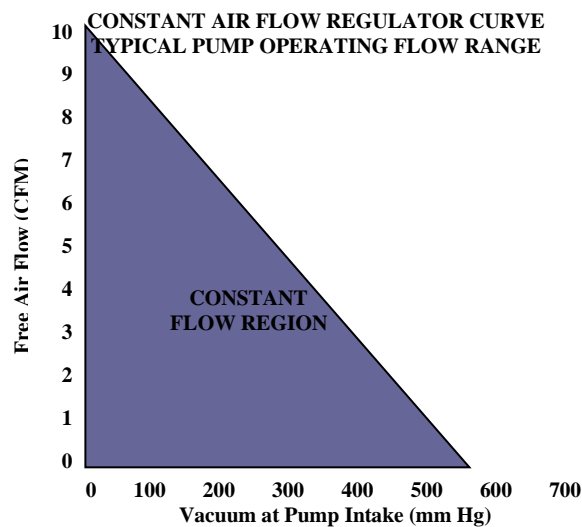
Bottom line on curve is for 50-cycle performance



Metric – Vacuum (mbar)



U.S. Imperial – Vacuum (Inches of Hg)



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