



F&J SPECIALTY PRODUCTS, INC.

The Nucleus of Quality Air Monitoring Programs

MOBILE LOW VOLUME AIR SAMPLER w/DIGITAL FLOWMETER MODEL DF-34BMHT

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
- Flow rate measurement and volume totalizations 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
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within $\pm 4\%$ F.S.
- RS-232 Communication Port
- Reference or Ambient Flow Corrections are operator selectable
- 100 – 120 VAC, 50/60Hz; single phase



GENERAL DESCRIPTION:

The Model DF-34BMHT heavy duty hand truck mounted mobile low volume air sampler designed for outdoor use with digital flowmeter and an adjustable, stainless steel sampling gooseneck. The adjustable gooseneck permits sampling at heights varying from 4' to 7' (122 – 213 cm) above floor level. Model DF-34BMHT contains state of the art microprocessor electronics, which provides for corrected flow rate measurements, volume totalizations, and an RS232 communications port. It has a large bright LED display. The air sampler is contained in a powder coat painted environmental enclosure mounted ~3.5 inches above ground level.

The DF-34BMHT Air Sampler includes an oil-less, carbon vane vacuum pump with a constant airflow regulator for use where a nearly constant airflow 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 lifetime. The oil-less pump requires no lubrication to maintain optimal efficiency during its service life. The pump is mounted on a rugged mobile hand truck with two 11" diameter pneumatic tires to facilitate mobile transportation of the unit.

The DF-34BMHT is designed for continuous indoor or outdoor use. Please consult the product specifications for the design temperature range and the installation category.

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

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DF-34BMHT DIGITAL LOW VOLUME AIR SAMPLER (100-120VAC)

Mobile Unit with Adjustable Sampling Height

SPECIFICATIONS:

PUMP TYPE: Oil-less, carbon vane 3/4 HP, 1425 RPM @ 50 Hz

MAXIMUM CAPACITY:

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

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

POWER REQUIREMENTS: 100 – 120VAC, 50/60 Hz; 6 amperes; single phase

CIRCUIT BREAKER PROTECTION: 10 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)

DIMENSIONS: 24"L × 21"W × 55"H
(61L cm × 53A cm × 140 cm Alt)

SAMPLING GOOSENECK: Adjustable to 7' (213cm) with a Aluminum gooseneck sturdy stainless steel rain guard

WHEELS: 11"D, pneumatic tires

WEIGHT: 135 lbs. (61.2 kg)

INSTALLATION CATEGORY: Pollution Degree 3

OPERATING TEMPERATURE RANGE:

14°-122°F (-0°-50°C)

ELECTRONIC SPECIFICATIONS:

MEASUREMENT ACCURACY:

Air flow: +/- 4% of full scale

Temperature: +/- 2.0°F (1.1°C)

Barometric Pressure: 2% over measured range

CALIBRATION: Calibration verification 1 per year

COMMUNICATIONS INTERFACE: RS-232

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)

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

