



F&J SPECIALTY PRODUCTS, INC.

The Nucleus of Quality Air Monitoring Programs

EMERGENCY RESPONSE AIR SAMPLING SYSTEM DIGITAL FLOW METER TECHNOLOGY F&J MODEL DFRV-ABM50-40L-AC

NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
 - Line Power (100VAC – 250VAC)
 - Automobile Cigarette Lighter (12 VDC)
 - LIBATBANK-12V Battery Bank
- Lightweight ~14.20 lbs. (6.44 kg)
- Maximum Flow 35 to 40 SLPM Maximum; typical
- Bright LED Display
- Automatic Flow Control Feature
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Auto shut-off on time or volume
- High vacuum rotary vane pump
- Brushless motor (12 VDC)
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Shown with optional
filter holder**

NOTABLE FEATURES:

The DFRV-ABM50-40L-AC exhibits exceptional suitability for air sampling activities within the realm of alternative energy applications. This versatile air sampler is constructed exclusively around a 12 VDC internal operating system, supplied by an external 10A power supply. This configuration equips the sampler with the capability of being powered by solar or wind energy sources for its operational requirements.

An inherent feature of the Digital Flow Meter (DFM) series is its automated flow control. This innovative feature affords a high degree of adaptability, especially in scenarios demanding prompt response for emergency sampling responsibilities. The preset flowrate is maintained automatically even under conditions of excessive dust loading, mitigating the need for operator attention. The air sampling instrument is securely housed within a robust, water resistant and compact metal enclosure. The air sampler's light weight and sturdy metal handle facilitates convenient transportation for emergency situations.

The standard flow range spans from 5 to 40 SLPM (0.2 to 1.41 SCFM). However, it is important to note that this maximum flow rate may vary based on the specific filter media utilized. It is important to note that in cases where the pressure drop across the filter media is not significant, achieving flow rates at the bottom of the range necessitates the integration of a bypass valve option.

REV: 09 October 2023

DFRV-ABM50-40L-AC AC/DC Powered Air Sampler Specifications

Pump Type: Mini Rotary Vane

Motor: Brushless motor 12 VDC

Maximum Flowrate: 40 SLPM typical
with 47 mm glass fiber media (98% DOP
efficiency)

Power Source:

Line Power; 100VAC to 250VAC
Vehicle Cigarette Lighter – 12 VDC
Battery Bank LIBATBANK-12V

Current Draw: 5.0 A maximum

Filter Holder Fitting:

1.80 Threaded Adaptor (standard)
3/8 FNPT quick disconnect (optional)

Handle: Durable metal

Weight: 14.20 lbs. (6.44 kg)

Dimensions: 13.8”L × 9.5”W × 9”H
(35.0 × 24.2 × 22.8 cm)

Operating Temperature Range:

18°F-122°F (-10°C-50°C)

Display: Bright LED (6 character, 1,2 cm H)

Elapsed Time: DD:HH:MM up to 168 hours

Flow Control:

Adjustable from keypad between 5-40 LPM
(Note: Achievable maximum flow rate depends on filter
media)

Flow Accuracy: ±4.0% of Full Scale

Factory Settable Reference T and P

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

OPTIONS:

- Data Storage Device (P/N: 232FCDS)
- 2+ GB Secure Digital Card (P/N: 372239)
- Flash card Reader (P/N: SDDR-199-A20)
- Bypass Needle Valve

Standard Combination Filter Holders Available:

FILTER HOLDER MODEL	CHARCOAL CARTRIDGE DIMENSIONS	PARTICULATE PAPER DIAMETER
FJ-19	F&J Model C	2” or 50 mm
FJ-27	F&J Model B	2” or 50 mm
FJ-34	F&J Model C	47 mm
FJ-39	F&J Model B	47 mm
FJ-52	F&J Model M	2” or 50 mm
FJ-54	F&J Model M	47 mm

Available Engineering Units for Flow and Volume:

SLPM / SL
SCFM / SCF
SCMH / SCM

Digital Flowmeter Keypad/Display

