



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-30Li

NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
 - Line Power (100VAC – 250VAC)
 - Automobile Cigarette Lighter
 - LIBATBANK-12V
 - On-board 30 Ah LiFe(PO₄) rechargeable battery
- Lightweight — 22 lbs. (9.98 kg)
- Maximum Flow 40L SLPM Maximum with 47 mm glass fiber media (98% DOP efficiency) FP47M
- 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
- Battery Life Indicator
- Brushless motor (12 VDC)
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



**Shown with optional
filter holder FJ-34**

NOTABLE FEATURES:

F&J Model DFRV-ABM50-40L-30Li is a military grade lightweight, small footprint, AC/DC voltage powered air sampling system operable from (1) line power, (2) an on-board 30 Ah LiFe(PO₄) battery, (3) an external 12-15 VDC power source; such as wind or solar power, or (4) from the F&J LIBATBANK-12V external DC power source.

The DFRV-ABM50-40L-30Li is well suited for emergency response air sampling activities and where users do not know whether line power will be available. Typical operating time from on-board battery is approximately 10—12 hours utilizing FP47M glass fiber filter paper.

The automatic flow control feature with the F&J Digital Flowmeter technology provides maximum flexibility for emergency response sampling responsibilities. The set flowrate is maintained automatically in case of dust loading and does not require operator attention. The air sampler is contained in a rugged, metal, small dimensioned enclosure which is water tight. The unit can be carried very easily by its metal handle.

Typical flow range is 5 - 40 SLPM (0.18 – 1.41 SCFM). This flow rate varies by the filter media utilized. If pressure drop across the filter media is not significant lower flow will not be achievable without bypass valve option.

The air sampler is also equipped with internal data storage that allows the user to download the sampling data as a .csv file for easy data analysis.

REV: 15 August 2023

DFRV-ABM50-40L-30Li AC/DC Powered Air Sampler Specifications

Pump Type: Mini rotary vacuum pump

Motor: Brushless motor 12 VDC

Maximum Flowrate: 40 LPM typical
with 47 mm glass fiber media (98% DOP efficiency) FP47M

Power Source:

Line Power; 100VAC to 240VAC
On-board LiFe(PO₄) battery (20 Ah/12.8 VDC)/30Ah
External 12VDC Power Source
LIBATBANK-12V Battery Bank

Current Draw: 4.0 A maximum

Operating Time on Battery: ~10-12 hours with FP47M

Filter Holder Fitting: 3/8 FNPT quick disconnect

Enclosure: Steel

Handle: Durable metal

Weight: 22 lbs. (9.98 kg)

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

Average dBA: 67.5

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

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)
- Rain Shield Filter Holder (P/N: FJ-110RH)
- Rain Shield Filter Holder (P/N: FJ-47RHM)
- Bypass Needle Valve

Optional

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

Filter holders for 102 mm and 110 mm are available

Available Engineering Units for Flow and Volume:

SLPM / SL
SCFM / SCF
SCMH / SCM

Digital Flowmeter Keypad/Display

