



F&J SPECIALTY PRODUCTS, INC.

The Nucleus of Quality Air Monitoring Programs

EMERGENCY RESPONSE SAMPLING SYSTEM DIGITAL FLOW METER TECHNOLOGY

F&J Model DFRV-40L-400-12Li

NOTABLE FEATURES:

- State-of-the-Art Electronics
- Operating Modes
 - Line Power (100VAC – 250 VAC)
 - On-Board Batteries
- Long-lasting 12 Ah LiFePO₄ battery pack
- Internal battery charging system operable from line power input
- Lightweight — ~23 lbs. (10 kg)
- Maximum Flow 35 to 40 LPM Maximum; typical
- Bright OLED Display; 4 Line x 32 Characters
- 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 (Graphical and Digital)
- Brushless motor (12 VDC)
- Internal Data Storage Downloadable as (.csv) file
- Data Download via Bluetooth with Optional Bluetooth Dongle for PC Device



Displayed With Optional Rain Hood and Filter Holder

GENERAL DESCRIPTION:

F&J Model DFRV-40L-400-12Li is a lightweight, small footprint, DC voltage powered air sampling system operable from (1) on-board 12 Ah LiFePO₄ battery, or (2) line power.

The DFRV-40L-400-12Li is well suited for emergency response sampling activities where users do not know whether line power will be available. Typical operating time from on-board battery is approximately 6 - 8 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 lightweight small dimensioned enclosure which is water tight. The unit can be carried very easily by its large, rugged plastic handle.

Typical flow range is 8 - 40 SLPM (0.3 -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.

REV: 20 February 2024

DFRV-40L-400-12Li Battery Powered Air Sampler Specifications

Pump Type: Mini rotary vane vacuum pump

Motor: Brushless motor 12 VDC

Maximum Flowrate: 35 LPM typical
with FP-47M glass fiber media

Power Source:

Internal – LiFePO₄; 12.8 VDC/12 Ah Battery Pack
External – Line Power; 100VAC to 240VAC

Battery Charging System:

Internal system which charges from line power

Operating Time on Batteries: ~ 6-8 hours w/FP47M

Current Draw: 5.0 A maximum

Filter Holder Fitting: 3/8 FNPT quick disconnect

Handle: Durable plastic

Weight: 23 lbs. (10 kg)

Dimensions: 16.8”L × 9.0”W × 14.0”H
(42.7 × 22.9 × 35.6 cm)

Average Db: 67.5

Operating Temperature Range: 0°F to 122°F
(-18°C to 50°C)

Display: Bright OLED (4 Line x 32 Characters)

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

Flow Control:

Adjustable from keypad between 8-35 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:

- Combination Filter Holder with Rain Hood
 - 47mm Particulate / C Geometry – FJ-47RH
 - 50mm Particulate / C Geometry – FJ-50RH
- FJ-47RHM
- FJ-47RH
- FJ-47RHM-P
- FJ-47RH-P
- Bypass Needle Valve
- Bluetooth Dongle for PC Device (P/N: BTDG)

Standard Combination Filter Holders Available:

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

Available Engineering Units for Flow and Volume:

SLPM / SLP
SCFM / SCF
SCMH / SCM

Digital Flow Meter Keypad/Display

