

# F&J SPECIALTY PRODUCTS, INC.

## F&J ELITE DIGITAL LIGHT (EDL) AIR SAMPLER

### Model DF-EDL-HP

#### NOTABLE FEATURES:

- State-of-the-Art Electronics
- Lightweight: ~16 lbs. (7.26 kg)
- Powerful: Flow rate to 170 LPM
- Very low maintenance
- Automatic Flow Control
- Operator selectable Ambient or Reference flow T and P Conditions
- Auto shut-off on time or volume
- RS232 Communication port
- Brushless motor
- Easily replaceable HEPA filters
- Optional Vertical Mount for Filter Holders



“Lightweight: ~ 16 lbs.”

#### GENERAL DESCRIPTION:

F&J Model DF-EDL-HP is a powerful small foot print light weight AC/DC powered air sampling system operable from (1) line power or (2) an optional 24VDC external power source. This powerful air sampler is the lightest weight low volume air sampler available having similar flow rate capacity.

The DF-EDL-HP air sampler is well suited for various types of air sampling applications such as REMP, plant emissions and work area monitoring programs. The unit is also equipped with two replaceable HEPA filters that filter the cooling air. It can be utilized in remote air sampling applications powered from solar panels or wind turbines.

The F&J Digital Flowmeter technology provides maximum flexibility, flow rate normalization, automatic flow control and opportunities for control by a PC device through the RS232 communication port.

The typical operating flow range is 20 - 120 SLPM (0.7 – 6 SCFM) with FP-47M. The actual flow range implemented will depend on the filter(s) utilized by the customer.

*\* All pictures are being used for illustrative purposes only. Actual product may vary slightly.  
\* Specifications, availability and components are subject to change without notice.*

Rev.: 06 Sept. 2022

# DF-EDL-HP AC/DC Air Sampler Specifications

**Pump Type:** Centrifugal blower

**Maximum Flowrate:**

155 LPM - Typical w/47 mm FP47M glass fiber media  
230+ LPM – Free air flow capacity

**Power Source:**

Line Power; 100VAC to 120VAC  
External DC Source – 24VDC (option)

**Maximum Current Draw:** 4 A maximum on line power  
6 A maximum on 24 VDC

**Filter Holder Fitting:**

3/8 FNPT quick disconnect

**Handle:** Durable plastic

**Weight:** 16 lbs. (7.26 kg)

**Installation Category:** Pollution Degree 2

**Enclosure Rating:** IPX2

**Dimensions:** 12.5" × 11" × 14" (32 × 28 × 36 cm)

**Average dB:** 65 at 94.8 SLPM using FP-47M + TE3C

**Operating Temperature Range:**

14°F to 122°F (-10°C to 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 20-180 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)
- 24VDC External power connector (P/N: 24VDCOPT)
- DC voltage booster to enable operation from 12VDC (P/N: 24VDCOPT-B)

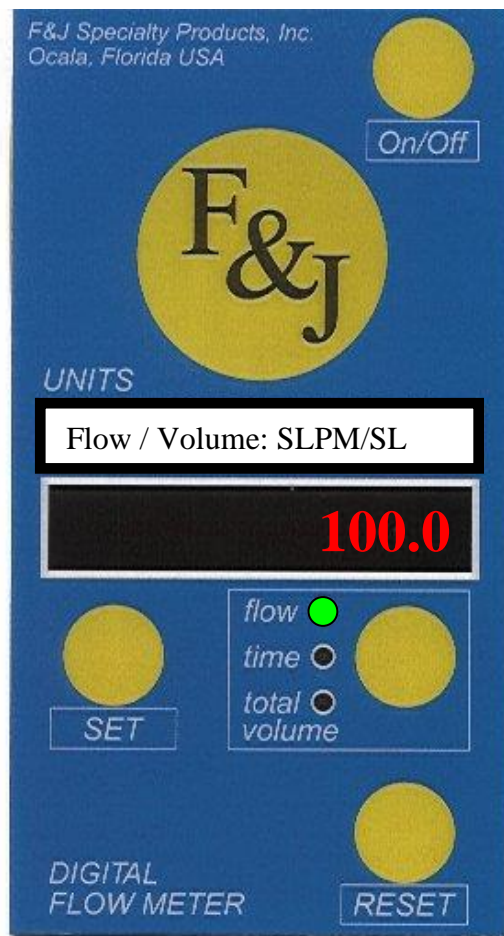
**Standard Combination Filter Holders Available:**

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:**

- scm / scc
- SLPM / SLP
- SCFM / SCF
- SCMH / SCM
- SCMM/SCM

**Digital Flowmeter Keypad/Display**



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# DF-EDL-HP AC/DC Air Sampler Specifications

## Typical Maximum Flow Rates for Various Filter Media Combinations

Filter Media	Flow Rate (SCFM)	Flow Rate (SLPM)	Media D.P.(“Hg)	Media D.P.(“H <sub>2</sub> O)
FP47	3.49	98	3.22	43.78
FP47M	5.47	155	2.13	28.96
FP47M2	8.43	238	1.31	17.81
FP47 & TE2C	2.76	78.11	3.55	48.26
FP47M & TE3C	4.28	121	2.85	38.75
FP47M2 & TE1C	5.36	151.69	1.79	24.34
FP20M	5.40	152.82	1.80	24.47
FP20M & TE2C	3.83	108.39	2.95	40.11
FP20M & TE3C	4.22	119.43	2.67	36.30
FP40M	11	310	0.77	10.47



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## DF-EDL-HP AC/DC Air Sampler Specifications

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Pictured with 130mm FJ-130 Filter Holder



Pictured with 130mm FJ-130 Filter Holder Vertically Mounted



Pictured with 47mm FJ-46P Filter Holder



Pictured with 47mm FJ-46P Filter Holder Vertically Mounted