

**F&J SPECIALTY PRODUCTS, INC.**

*The Nucleus of Quality Air Monitoring Programs*

## PORTABLE DIGITAL FLOW METER HIGH VOLUME AIR SAMPLERS

**220 — 240 VAC**



**Portable Grab Sampler  
DF8400E Series**



**ULTRA High Volume  
Portable Grab Sampler  
DFHV-200E Series**



**Brushless High Volume  
Grab Sampler  
DFHV-1-BL-TE Series**



**Brushless High Volume  
Grab Sampler  
DFHV-1S-BL-TE Series**



**DFHV-1E**



**DFHV-1SE**



**DFHV-1DE**



**DFHV-1DSE**

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# PORTABLE DIGITAL FLOW METER HIGH VOLUME AIR SAMPLERS

## BY F&J SPECIALTY PRODUCTS. INC.

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## DIGITAL FLOW METER HIGH VOLUME AIR SAMPLER F&J MODEL DF8400E



### NOTABLE FEATURES:

- State-of-the-art Microprocessor Controlled Electronics
- Accurate flow sensor
- Flowrate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Very accurate elapsed time meter
- Very durable polypropylene plastic housing
- Lightweight < 4,3 kg (9 lbs.)
- Variable speed control up to full flow
- Thermally Protected Motor
- Powerful 1.4 H.P. dual ball bearing motor
- Bright LED display
- Standard 4-inch (102 mm) diameter filter holder; also accommodates optional 8"×10" (20,3 × 25,4 cm) filter holder w/adaptor

### SPECIFICATIONS

#### Pump Type:

Two stage, through flow, thermally protected 1.4 H.P., dual ball bearing vacuum blower motor.

#### Maximum Motor Capacity:

90 CFM at 29.92" HG at 68°F (Free Air Flow); Flow rate achievable will depend on the filter media utilized

#### Power Requirements:

220-240VAC; 50/60Hz; single phase

**Power Cord:** 7'; 18 gauge, 3 conductor

**Circuit Breaker:** 10 amp (able to reset)

**Flow Control** Variable Speed up to full flow

**Dimensions:** 40L × 22,9W × 27,9 cm H  
(15 ¾"L × 9"W × 11"H)

**Weight:** 5 kg (11 lbs.)

**Handle:** Durable plastic/metal

**Particulate Holder:** A durable plastic 4-inch (102 mm) diameter holder is standard

#### Digital Flowmeter Displays:

Flowrate: Corrected to STP

Elapsed Time: hhh:mm

Volume: Corrected to STP

## DIGITAL FLOW METER HIGH VOLUME AIR SAMPLER F&J MODEL DFHV-200E



### NOTABLE FEATURES:

- State-of-the-art Microprocessor Controlled Electronics
- Accurate flow sensor
- Flow rate and Volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Very accurate elapsed time meter
- Very durable polycarbonate plastic housing
- Lightweight 14.4 lbs. (6,5 kg)
- Variable speed control up to full flow
- Thermally Protected Motor
- Powerful 3 H.P. dual ball bearing tangential discharge brushed vacuum blower
- Bright LED display
- Standard 4-inch (102 mm) diameter filter holder; also accommodates optional 110 mm, 125 mm, 140 mm and 150 mm filter holders

### SPECIFICATIONS

#### Pump Type:

Three stage, through flow, dual ball bearing 3.0 H.P., tangential discharge brushed vacuum blower motor.

#### Maximum Motor Capacity:

120 CFM at 29.92" Hg at 68°F (Free Air Flow); Flow rate achievable with filter media will depend on the air flow resistance of the filter media utilized.

#### Power Requirements:

220-240VAC; 50/60Hz; single phase

**Power Cord:** 5'8"; 14 gauge, 3 conductor

**Circuit Breaker:** 20 amp (able to reset)

**Flow Control:** Variable Speed up to full flow

**Noise Level @ 1 meter:** ~96dB (max rpm) \*

**Dimensions:** 48.2cm L x 40.6cm H x 51.4 cm D  
(19" L x 16" H x 10.25" D)

**Weight:** 6,5 kg (14,4 lbs)

**Handle:** Durable plastic/built into housing

**Particulate Holder:** A durable plastic 4-inch (102 mm) diameter holder is standard

#### Digital Flowmeter Displays:

Flowrate:	Corrected to STP
Elapsed Time:	hhh:mm
Volume:	Corrected to STP

\* Hearing protection is recommended when operating this air sampler above 85dB noise level

## DIGITAL FLOW METER HIGH VOLUME AIR SAMPLER F&J MODEL DFHV-1-BL-TE



### 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
- Automatic Flow Control
- Auto Shut-off on time or volume
- Flowrate and volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within  $\pm 4.0\%$  F.S.
- RS-232 Communication Port w/Operator selectable download frequency for real-time data
- 220 – 240 VAC, 50/60Hz; single phase

### SPECIFICATIONS

**Pump Type:** The pump is a 450W brushless blower with 3 phase commutation for more precise speed control

**Maximum Motor Capacity:**

36 CFM at 29.92" Hg and 70°F (Free Air Flow)

**Humidity Operating Range:**

0-95% RH (non-condensing)

**Temperature Operating Range:**

18 to 122°F (-8 to 50°C)

**Ultimate Vacuum:** 58.9" H<sub>2</sub>O (4.34 Hg) at standard temperature, pressure and zero flow restriction

**Power Requirements:** 220 – 240VAC;

50/60Hz at 3 amperes; single phase

**Circuit Breaker Protection:** 10 amperes

**Electrical Cord:** All temp, 3-wire, 16 gauge

**Handle:** Durable plastic

**Dimensions:** 25.4cm L x 21.0cm W x 24.8cm H  
(10" L x 8 1/4" W x 9 3/4" H)

**Noise Level:** Average dB 83.8 @ 1 meter

**Weight:** Approx 5,43 kg (12 lbs)

**Installation Category:** Pollution Degree 2

**Digital Flow Meter Displays:**

Flowrate: Corrected to STP

Elapsed Time: hhh:mm

Volume: Corrected to STP

**Flow Calibration:**

Factory calibration recommended once per year

## DIGITAL FLOW METER HIGH VOLUME AIR SAMPLER F&J MODEL DFHV-1S-BL-TE



### 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
- Automatic Flow Control
- Auto Shut-off on time or volume
- Flowrate and volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within  $\pm 4.0\%$  F.S.
- RS-232 Communication Port w/Operator selectable download frequency for real-time data
- 220 – 240 VAC, 50/60Hz; single phase

### SPECIFICATIONS

**Pump Type:** The pump is a 450W brushless blower with 3 phase commutation for more precise speed control

**Maximum Motor Capacity:**

36 CFM at 29.92" Hg and 70°F (Free Air Flow)

**Humidity Operating Range:**

0-95% RH (non-condensing)

**Temperature Operating Range:**

18 to 122°F (-8 to 50°C)

**Ultimate Vacuum:** 58.9" H<sub>2</sub>O (4.34 Hg) at standard temperature, pressure and zero flow restriction

**Power Requirements:** 220 – 240VAC;

50/60Hz at 3 amperes; single phase

**Circuit Breaker Protection:** 10 amperes

**Electrical Cord:** All temp, 3-wire, 16 gauge

**Handle:** Durable plastic

**Dimensions:** 24.4cm L x 21.0cm W x 24.8cm H  
(10" L x 8 1/4" W x 9 3/4" H)

**Noise Level:** Average dB 83.8 @ 1 meter

**Weight:** Approx 5,43 kg (12 lbs)

**Installation Category:** Pollution Degree 2

**Digital Flow Meter Displays:**

Flowrate: Corrected to STP

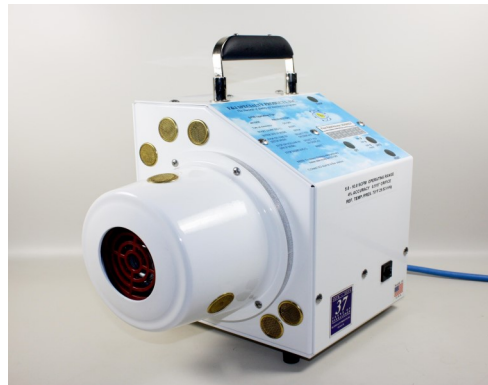
Elapsed Time: hhh:mm

Volume: Corrected to STP

**Flow Calibration:**

Factory calibration recommended once per year

## Digital Flow Meter High Volume Technology F&J Model DFHV-1E



### 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
- Automatic Flow Control
- Auto Shut-off on time or volume
- Flowrate and volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within  $\pm 4.0\%$  F.S.
- RS-232 Communication Port w/Operator selectable download frequency for real-time data
- 220 – 240 VAC, 50/60Hz; single phase

### SPECIFICATIONS

**Pump Type:** Two stage, dual ball-bearing, bypass type with an independent cooling system for the motor that provides thermal overload protection.

**Maximum Motor Capacity:**  
94 CFM at 29.92" Hg and 68°F (Free Air Flow);  
Flow rate achievable will depend on the filter media utilized

**Humidity Operating Range:** 0 – 95% RH  
(non-condensing)

**Temperature Operating Range:**  
18 to 122°F (-8 to 50°C)

**Ultimate Vacuum:** 80" H<sub>2</sub>O at standard temperature, pressure and zero flow restriction

**Power Requirements:**  
220 – 240VAC; 50/60Hz at 6 amperes; single phase

**Electrical Cord:** All temp, 3-wire, 16 gauge

**Handle:** Durable plastic

**Dimensions:**  
28,1 × 23,8 × 25,4 cm  
(11 1/16" L × 9 3/8" W × 10 3/4" H)

**Noise Level:** Average dB 83.8 @ 1 meter

**Weight:** Approx 6,1 kg (13.4 lbs.)

**Installation Category:** Pollution Degree 2  
**Digital Flow Meter Displays:**

Flowrate: Corrected to STP

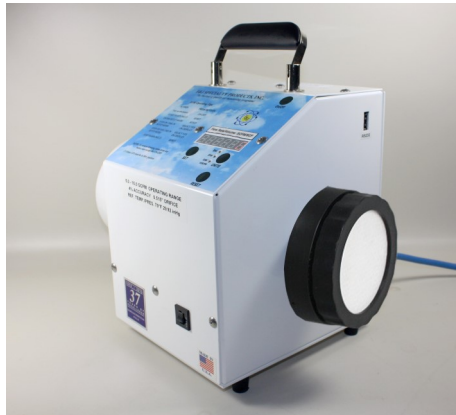
Elapsed Time: hhh:mm

Volume: Corrected to STP

**Flow Calibration:**

Factory calibration recommended once per year

## Digital Flow Meter High Volume Technology F&J Model DFHV-1SE



### 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
- Automatic Flow Control
- Auto Shut-off on time or volume
- Flowrate and volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within  $\pm 4.0\%$  F.S.
- RS-232 Communication Port w/Operator selectable download frequency for real-time data
- 220 – 240 VAC, 50/60Hz; single phase

### SPECIFICATIONS

**Pump Type:** Two-stage, dual ball-bearing, bypass type with an independent cooling system for the motor that provides thermal overload protection.

**Maximum Motor Capacity:**  
94 CFM at 29.92" Hg and 68°F (Free Air Flow);  
Flow rate achievable will depend on the filter media utilized

**Humidity Operating Range:** 0 – 95% RH  
(non-condensing)

**Temperature Operating Range:**  
18 to 122°F (-8 to 50°C)

**Ultimate Vacuum:** 80" H<sub>2</sub>O at standard temperature, pressure and zero flow restriction

**Power Requirements:**  
220 – 240VAC; 50/60Hz at 6 amperes; single phase

**Electrical Cord:** All temp, 3-wire, 16 gauge

**Handle:** Durable plastic

**Dimensions:** 27.3 x 18.3 x 24.7 cm  
(10<sup>3/4</sup>" L x 7<sup>1/4</sup>" W x 9<sup>3/4</sup>" H)

**Noise Level:** Average dB 83.3 @ 1 meter

**Weight:** Approx 5,5 kg (12 lbs.)

**Installation Category:** Pollution Degree 2  
**Digital Flow Meter Displays:**

Flowrate: Corrected to STP

Elapsed Time: hhh:mm

Volume: Corrected to STP

**Flow Calibration:**

Factory calibration recommended once per year



## Digital Flow Meter High Volume Technology F&J Model DFHV-1DE



### 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
- Automatic Flow Control
- Auto Shut-off on time or volume
- Flowrate and volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within  $\pm 4.0\%$  F.S.
- RS-232 Communication Port w/Operator selectable download frequency for real-time data
- 220 – 240 VAC, 50/60Hz; single phase

### SPECIFICATIONS

**Pump Type:** Two-stage, dual ball-bearing, bypass type brushless motor with an independent cooling system. The motor has thermal overload protection.

**Maximum Motor Capacity:** 100+ CFM at 29.92" Hg and 68°F (Free Air Flow). Actual flow rate achievable will depend on the filter media utilized

**Humidity Operating Range:** 0 – 95% RH (non-condensing)

**Temperature Operating Range:** 18 to 122°F (-8 to 50°C)

**Ultimate Vacuum:** 86" H<sub>2</sub>O at 29.92" Hg and 68°F and zero flow restriction

**Power Requirements:** 220 – 240VAC; 50/60Hz at 6 amperes; single phase

**Electrical Cord:** All temp, 3-wire, 16 gauge

**Handle:** Durable metal/plastic

**Dimensions:** 32.3 × 27.2 × 19 cm (12.7" L × 10.7" W × 7.5" H)

**Noise Level:** Average dB 86.5 @ 1 meter

**Weight:** Approx 6.5 kg (14 lbs.)

**Installation Category:** Pollution Degree 2

**Digital Flow Meter Displays:**

Flowrate:	Corrected to STP
Elapsed Time:	hhh:mm
Volume:	Corrected to STP

**Flow Calibration:**  
Factory calibration recommended once per year

## Digital Flow Meter High Volume Technology F&J Model DFHV-1DSE



### 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
- Automatic Flow Control
- Auto Shut-off on time or volume
- Flowrate and volume totalizations displayed are corrected to a factory settable Reference Temperature and Pressure (4 options available)
- Elapsed time meter
- Auto zero calibration feature of flow sensor
- Bright LED display
- Flow rate accuracy within  $\pm 4.0\%$  F.S.
- RS-232 Communication Port w/Operator selectable download frequency for real-time data
- 220 – 240 VAC, 50/60Hz; single phase
- Brushless Motor

### SPECIFICATIONS

**Pump Type:** Two-stage, dual ball-bearing, bypass type brushless motor with an independent cooling system. The motor has thermal overload protection.

**Power:** 1100 Watts

**Maximum Motor Capacity:** 100+ CFM at 29.92" Hg and 68°F (Free Air Flow). Actual flow rate achievable will depend on the filter media utilized

**Humidity Operating Range:** 0 – 95% RH  
(non-condensing)

**Temperature Operating Range:**  
18 to 122°F (-8 to 50°C)

**Ultimate Vacuum:** 86" H<sub>2</sub>O at 29.92" Hg and 68°F and zero flow restriction

**Power Requirements:**

220 – 240VAC; 50/60Hz at 6 amperes; single phase

**Circuit Breaker Protection:** 15 amperes

**Electrical Cord:** All temp, 3-wire, 16 gauge

**Handle:** Durable metal/plastic

**Dimensions:** 32.3 × 27.2 × 19 cm  
( 12.7 "L × 10.7"W × 7.5 "H)

**Noise Level:** Average dB 86.5 @ 1 meter

**Weight:** Approx 6,4 kg (14lbs.)

**Installation Category:** Pollution Degree 2

**Digital Flow Meter Displays:**

Flowrate: Corrected to STP

Elapsed Time: hhh:mm

Volume: Corrected to STP

**Flow Calibration:**

Factory calibration recommended once per year

## Digital Flow Meter Series Features for High Volume Air Samplers

### Standard Features:

- Bright LED Display
- Flow and totalized volume are corrected to a factory reference Temperature and Pressure (4 options available)
  - Classical STP 0°C, 760 mmHg
  - Normal T and P 20°C, 760 mmHg
  - Modified Normal T and P 21.1°C (70°F), 760 mmHg
  - Standard Ambient T and P 25°C, 760 mmHg
- Elapsed time meter
- RS232 Data export in ASCII format in comma delimited text string at various operator selectable download frequencies
- Storage of elapsed time and volume in the event of power outage
- Detection of zero flow condition after return of power to pause elapsed time until flow returns
- Auto Shut-off on time or volume
- Automatic Flow Control
- Selectable engineering units for flow and volume (to be set at factory).

<u>Flow</u>	<u>Volume</u>
sccm	scc
SLPM	SL
SCMH	SCM
SCFM	SCF

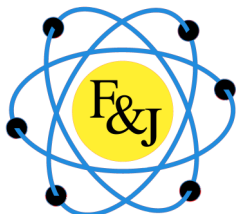
### Optional Features:

- FlashCard time data from the RS232 port.

### Optional Features:

Datalogger to capture and store re

232FCDS	Data Storage Device
372239	2 GB Secure Digital Card
SDDR-199-A20	FlashCard Reader



## F&J SPECIALTY PRODUCTS, INC.

*The Nucleus of Quality Air Monitoring Programs*

### PRODUCT PROFILE

#### Air Sampling Systems

- High Volume Air Samplers
  - Portable Grab Samplers
  - Environmental Systems
  - Enzyme Dust Samplers
  - PM10 Systems
- Continuous Air Samplers
  - Environmental Systems
  - Portable
  - Fixed Station
- Personal Air Samplers
- Emergency Response DC Powered Air Sampling Systems

#### Filter Paper

- Glass Fiber
- Cellulose
- Membrane
- Quartz

#### Filter Holders

- Open face
- In-Line
- PAS Filter Holders
- Materials
  - Plastic
  - Aluminum
  - Stainless Steel

#### Radon Detection Devices

- 2-Day Passive Charcoal Canisters
- 7-Day Passive Charcoal Canisters
- Continuous Radon Monitors

#### Tritium Detection Systems

- Portable and Fixed Station Collection Systems utilizing Silica Gel or Molecular Sieve Absorbents
- Continuous Tritium Monitors

#### New Products

- Global Air Sampling Systems
- Digital Flowmeter Air Samplers
- C-14 Collection Systems
- ELITE DIGITAL LIGHT (EDL) Air Samplers
- Isokinetic Air Sampling Systems
- MEGA High Volume Air Samplers
- ULTRA High Volume (CTBTO) Air Samplers

#### Radioiodine Collection Cartridges

- TEDA Impregnated Charcoal
- Silver Zeolite
- Custom Cartridges
- Bulk Silver Zeolite

#### Air Flow Calibrators

- World Calibrator Series
- Compact Digital V.2 Series
- Mini-Calibrator