

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-1S-BL-TE Series



DFHV-1EV.2



DFHV-1SEV.2



DFHV-1DTE



DFHV-1DTSE

Rev: 14 October 2024

PORTABLE DIGITAL FLOW METER HIGH VOLUME AIR SAMPLERS

BY F&J SPECIALTY PRODUCTS. INC.

Models	Page
DF8400E	3
DFHV-200E	4
DFHV-1S-BL-TE	5
DFHV-1E	6
DFHV-1SE	7
DFHV-1DTE	8
DFHV-DTSE	9

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.

Power Requirements:

220-240 VAC; 50/60 Hz; 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.

Power Requirements:

220-240 VAC; 50/60 Hz; 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: ~96 dB (max rpm) *

Dimensions: 48.2cm L x 40.6cm H x 26.0cm 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-1S-BL-TE



450 Watt Brushless Motor

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, 50/60 Hz; single phase

SPECIFICATIONS

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

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

Temperature Operating Range:
14 to 122°F (-10 to 50°C)

Ultimate Vacuum: 58.9" H₂O (4.34 Hg) at standard temperature, pressure and zero flow restriction

Power Requirements: 220 – 240 VAC;
50/60 Hz 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

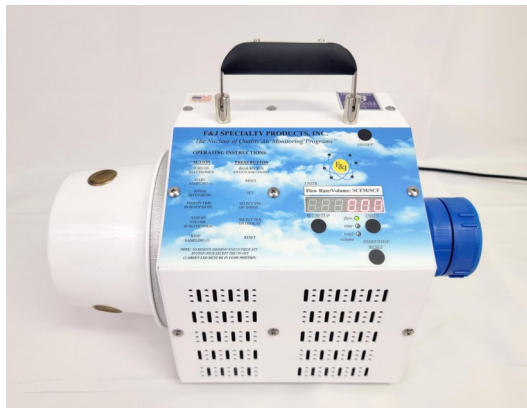
Elapsed Time: hhh:mm

Volume: Corrected to STP

Flow Calibration:

Factory calibration recommended once per year

Digital Flow Meter High Volume Technology F&J Model DFHV-1EV.2



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, 50/60 Hz; 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.

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

Temperature Operating Range: 14 to 122°F (-10 to 50°C)

Ultimate Vacuum: 80" H₂O at standard temperature, pressure and zero flow restriction

Power Requirements:

220 – 240 VAC; 50/60 Hz at 4.2 amperes; single phase

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

Handle: Durable plastic

Dimensions: 31.1 × 20.9 × 27.9 cm
(12.25" L × 8.25" W × 11.00" H)

Noise Level: Average dB 83.8 @ 1 meter

Weight: Approx. 5,6 kg (12.55 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-1SEV.2



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, 50/60 Hz; 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.

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

Temperature Operating Range: 14 to 122°F (-10 to 50°C)

Ultimate Vacuum: 80" H₂O at standard temperature, pressure and zero flow restriction

Power Requirements: 220 – 240 VAC; 50/60 Hz at 4.2 amperes; single phase

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

Handle: Durable plastic

Dimensions: 35,5 x 20,9 x 27,9 cm
(14"L x 8.25"W x 11.00"H)

Noise Level: Average dB 83.3 @ 1 meter

Weight: Approx 5,8 kg (12.90 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 F&J MODEL DFHV-1DTE

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, 50/60 Hz; single phase
- Brushless motor (1100 watts)



New!
1100 watt brushless motor

SPECIFICATIONS

PUMP TYPE: The pump is a 1100 W brushless blower with 3 phase commutation for more precise speed control

HUMIDITY OPERATING RANGE:
0-95% RH (non-condensing)

TEMPERATURE OPERATING RANGE:
14 to 122°F (-10 to 50°C)

ULTIMATE VACUUM: 8" H₂O at standard temperature, pressure and zero flow restriction

POWER REQUIREMENTS: 220 – 240 VAC;
50/60 Hz at 3 amperes; single phase

CIRCUIT BREAKER PROTECTION: 20 amperes

ELECTRICAL CORD: All temp, 3 wire 16 gauge

FLOW CONTROL: Electronic motor speed control

HANDLE: Durable metal/plastic

DIMENSIONS: (11.5"L × 8 1/4"W × 9 3/4"H)

AVERAGE dB: 78.4

WEIGHT: Approx 17.5 lbs. (7.9 kg)

INSTALLATION CATEGORY: Pollution Degree 2

DIGITAL FLOWMETER DISPLAYS:

Flowrate:	Corrected to Ref. T and P
Elapsed Time:	hhh:mm
Volume:	Corrected to Ref. T and P

FLOW CALIBRATION:

Factory calibration or calibration check recommended once per year.

DIGITAL FLOW METER HIGH VOLUME F&J MODEL DFHV-1DTSE

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, 50/60 Hz; single phase
- Brushless motor (1100 watts)

CE



New!
1100 watt brushless motor

SPECIFICATIONS

PUMP TYPE: Three-stage, dual ball-bearing tangential discharge, type brushless motor with an independent cooling system. The motor has thermal overload protection.

POWER: 1100 Watts

HUMIDITY OPERATING RANGE:

0 – 95% RH (non-condensing)

TEMPERATURE OPERATING RANGE:

14°F to 122°F (-10°C to 50°C)

ULTIMATE VACUUM: 121.9" H₂O at 28.40" Hg and 76°F and zero flow restriction

POWER REQUIREMENTS:

220 – 240 VAC; 50/60 Hz at 9.2 amperes; single phase

CIRCUIT BREAKER PROTECTION:

12 amperes

ELECTRICAL CORD: All temp, 3 wire 16 gauge

FLOW CONTROL:

PWM Electronic motor speed control

HANDLE: Durable metal/plastic

DIMENSIONS: 13.8" L × 9.2" W × 11.0" H
(35.1 × 23.3 × 27.9 cm)

WEIGHT: Approx. 16.75 lbs. (7.59 kg)

INSTALLATION CATEGORY:

Pollution Degree 2

DIGITAL FLOWMETER DISPLAYS:

Flowrate: Corrected to Ref. T and P

Elapsed Time: hhh:mm

Volume: Corrected to Ref. T and P

FLOW CALIBRATION:

Factory calibration or calibration check 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 Datalogger to capture and store real-time data from the RS232 port.

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

F&J FlashCard Datalogging System



Data Storage Device, RS232 Input, Data stored in SD Card (SD Card not included)

P/N: 232FCDS

2GB or Higher Secure Digital Card

The SD card is ideally suited to meet the demands of small portable devices that need high capacity flash memory in a very small size. The F&J FlashCard Data Storage Device uses this type of flash memory.



P/N: 372239

Main Features

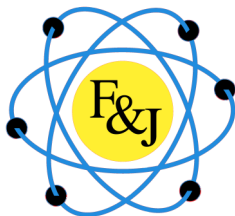
Flash memory card; 2GB; SD Memory Card

Micro SD Card Reader

USB 3.0 SD Card Reader for SDHC (UHS-I), SDXC (UHS-I), microSD, microSDHC (UHS-I), and microSDXC (UHS-I). Fully powered via your USB port, no additional power supply required. No drivers required for Windows XP/Vista/7/8/8.1/10, Mac OS, Linux, Chrome OS.



P/N: SDDR-199-A20



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
- JUNIOR 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