

F&J SPECIALTY PRODUCTS, INC.

The Nucleus of Quality Air Monitoring Programs

ANALOG LOW VOLUME AIR SAMPLERS

220 — 240 VAC



LV-1DE



FJ28BE



LV-22E



LV-14ME



FJ-28BEMHT

Rev: 24 February 2021

ANALOG LOW VOLUME AIR SAMPLER F&J MODEL LV-1DE

NOTABLE FEATURES:

- Constant air flow regulator adjustable by user
- Chassis mounted ON-OFF switch with fuse protection
- Durable oil-less carbon vane pump designed for continuous use
- Internal intake and exhaust mufflers
- Rotometer and Vacuum gauge
- 220-240 VAC, 50/60Hz; single phase





Shown with Optional Timer

GENERAL DESCRIPTION:

Model LV-1DE is a low volume air sampler consisting of a 1/4 H.P. oil-less, carbon vane vacuum pump with a flow meter, a vacuum gauge and a constant air flow regulator for use where a nearly constant air flow is desirable. The regulator holds a constant pressure drop across an in-line orifice by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum pressure drop at all times permitting it to run cooler; thus extending its service life. The oil-less pump requires no lubrication to maintain optimal efficiency during it service life. The pump is mounted on a base with four rubber feet. A handle is provided on the chassis to facilitate its transportation. The LV-1DE is distinguished from the LV-1E air sampler in that the flow meter and vacuum gauge are mounted on a quick disconnect plastic manifold on top of the motor that facilitates maintenance operations.

The typical operating flow range is 1 to 3 CFM (10 - 100 LPM).

Analog Low Volume Air Samplers

SPECIFICATIONS:

PUMP TYPE: Oil-less, carbon vane 1/4 HP; 50/60 Hz, 1 PH

MAXIMUM CAPACITY: 4 CFM (113 LPM) at 0" Hg Pressure drop

ULTIMATE VACUUM: 25" (635 mm) Hg at sea level

VACUUM GAUGE: 0" - 30" (0 to 762 mm) Hg

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

FUSE PROTECTION: 6-1/4 Amperes

ELECTRICAL CORD: All temperature, 3 wire, 18 gauge

THERMAL OVERLOAD PROTECTION: Furnished as an integral part of the motor

CONSTANT AIRFLOW REGULATOR: Aluminum construction with silicone diaphragm; adjustable

from 1 to 3 CFM (10- 100 LPM) **HANDLE:** Black Painted Steel

OPERATING TEMPERATURE: 0° to 104° F (-18° to 40° C)

WEIGHT: 16 kg (36 lbs.)

INSTALLATION CATEGORY: Pollution Degree 2

AVAILABLE ROTOMETER SCALES:

MODEL RANGE R10100 10-100 LPM R13 1 - 3 CFM

OPTIONS:

Elapsed Time Indicator – 9999,9 hours or minutes

COMBINATION FILTER HOLDER:

Durable plastic combination filter holders for F&J Model B, C or M charcoal cartridges and 47 mm, 2" or 50 mm diameter particulate filter paper are available. All models have quick disconnect function.

FILTER HOLDER	CHARCOAL CARTRIDGE	PARTICULATE PAPER
MODEL	DIMENSIONS	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

ANALOG LOW VOLUME AIR SAMPLER F&J MODEL FJ28BE

NOTABLE FEATURES:

- Constant air flow regulator adjustable
- Easy access powder coat painted enclosure with exhaust fan
- Durable 1/4 HP oil-less carbon vane pump designed for continuous use
- Internal intake and exhaust mufflers
- Rotometer, elapsed timer indicator and vacuum gauge
- 220-240VAC, 50/60Hz; single phase



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GENERAL DESCRIPTION:

Model FJ28BE is counter-top cabinet model, low-volume air sampler with a 1/4 HP oil-less carbon vane vacuum pump, and a constant air flow regulator for use where a near constant air flow is desirable. The regulator holds a constant pressure drop across an in-line orifice by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum head drop at all times permitting it to run cooler; thus extending its service life. The oil-less pump requires no lubrication to maintain optimal efficiency during its service life. The FJ28BE unit may be used in enclosed areas or placed in a weather resistant aluminum cabinet for environmental sampling.

The typical operating flow range is 1 to 3 CFM (10-100 LPM).

PUMP TYPE: Oil-less, carbon vane 1/4 HP; 1425 RPM @ 50 Hz **MAXIMUM CAPACITY:** 4 CFM (113 LPM) at 0" Hg Pressure drop

ULTIMATE VACUUM: 25" Hg (635 mm Hg) at sea level

VACUUM GAUGE: 0 - 30" (0 - 762 mm) Hg

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

FUSE PROTECTION: 6 ½ Amperes

ELECTRICAL CORD: All temperature, 3-wire, 16 gauge

THERMAL OVERLOAD PROTECTION: Furnished as an integral part of the motor

ELAPSED TIME INDICATOR: Resettable type-0-9999.9 min. or hours

CONSTANT AIR FLOW REGULATOR: Aluminum construction with silicon diaphragm:

adjustable from 1 to 3 CFM (10-100 LPM)

DIMENSIONS: $47L \times 29,2W \times 34,9 \text{ cm H } (18 \frac{1}{2}\text{"L} \times 12 \frac{1}{2}\text{"W} \times 13 \frac{3}{4}\text{"H})$

AVERAGE dB: 67.0

WEIGHT: 19,5 kg (43 lbs.)

INSTALLATION CATEGORY: Pollution Degree 3

ENCLOSURE RATING: IPX3

AVAILABLE ROTOMETER SCALES:

MODEL RANGE

R10100 10 - 100 LPM

R13 1-3 CFM

COUNTER-TOP CABINET FEATURES

- Two handles
- Exhaust fan; 100 CFM
- Easy-open maintenance door
- Removable top
- Multi-louvered sides

COMBINATION FILTER HOLDER:

Durable plastic combination filter holders for F&J Model B, C or M charcoal cartridges and 47 mm, 2" or 50 mm diameter particulate filter paper are available. All models have quick-disconnect function.

FILTER	CHARCOAL	PARTICULATE
HOLDER	CARTRIDGE	PAPER
MODEL	DIMENSIONS	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

ENVIRONMENTAL ANALOG LOW VOLUME AIR SAMPLER

F&J MODEL LV-22E

NOTABLE FEATURES:

- Constant air flow regulator adjustable
- Powder coat painted aluminum enclosure with cooling fan
- Durable 1/4 HP oil-less carbon vane pump designed for continuous use
- Internal intake and exhaust mufflers
- Rotometer, elapsed timer indicator and vacuum gauge
- 220-240VAC, 50/60Hz; single phase





GENERAL DESCRIPTION:

Model LV-22E is a low volume air sampler consisting of a 1/4 HP oil-less, carbon vane vacuum pump with an air flow regulator for use where a nearly constant air flow is desirable. The regulator holds a constant pressure drop across an in-line orifice by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum pressure drop at all times permitting it to run cooler; thus extending its service life. The oil-less pump requires no lubrication to maintain optimal efficiency during its service life. The LV-22E is enclosed in a weather resistant aluminum environmental cabinet, Model WH-3. An optional mechanical volume totalizer is available.

It should be noted that as pressure varies, the flow through an orifice with a constant pressure drop varies approximately as the square root of the ratio of the absolute pressure. Thus, if paper loading causes a pressure drop to one-half of the original value, the orifice is adjustable, allowing a flow rate adjustment from near-zero up to the pump's maximum capacity. Best long-term regulation is maintained at or below 2 cubic feet per minute (57 liters per minute).

The typical operating flow range is 1 to 3 CFM (10 - 100 LPM).

PUMP TYPE: Oil-less, carbon vane 1/4 HP; 1425 RPM @ 50 Hz

MAXIMUM CAPACITY: 4 CFM (113 LPM) at 0"Hg Pressure drop.

ULTIMATE VACUUM: 25" (635 mm) Hg at sea level.

VACUUM GAUGE: 0" - 30" (0 to 762 mm) Hg.

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

FUSE PROTECTION: 6-1/4 Amperes

ELECTRICAL CORD: All temperature, 3 wire, 16 gauge

THERMAL OVERLOAD PROTECTION: Furnished as an integral part of the motor.

CONSTANT AIRFLOW REGULATOR: Aluminum construction with silicone diaphragm; adjustable

from 1 to 3 CFM (10-100 LPM).

DIMENSIONS (w/Legs): $81.3L \times 65.0W \times 122.6 \text{ cm H}$ (32 "L x 26"W x 481/4"H)

WEIGHT: 46,8 kg (103 lbs.)

INSTALLATION CATEGORY: Pollution Degree 3

ENCLOSURE RATING: IPX3

AVAILABLE ROTOMETER SCALES:

 MODEL
 RANGE

 R10100
 10-100 LPM

 R13
 1 - 3 CFM

OPTIONS:

- Mechanical Volume Totalizer; Metric or English units
- DLM100-04 Digital Electronic Monitor

COMBINATION FILTER HOLDER:

Durable plastic combination filter holders for F&J Model

B, C or M charcoal cartridges and 47 mm, 2" or 50 mm diameter particulate filter paper are available. All models have quick disconnect function

FILTER	CHARCOAL	PARTICULATE
HOLDER	CARTRIDGE	PAPER
MODEL	DIMENSIONS	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

MOBILE ANALOG LOW VOLUME AIR SAMPLER F&J MODEL LV-14ME

NOTABLE FEATURES:

- Constant air flow regulator
- Durable 1/4 HP oil-less carbon vane pump designed for continuous use
- Instrument control box conveniently located
- Internal intake and exhaust mufflers
- Adjustable sampling gooseneck 122 213 cm (4' 7')
- Rotometer, elapsed timer indicator and vacuum gauge
- Mobile cart with 8" hard rubber wheels
- 220-240VAC, 50/60Hz; single phase





GENERAL DESCRIPTION:

Model LV-14ME is a cart mounted low volume air sampler with an adjustable, aluminum sampling gooseneck. The adjustable gooseneck permits sampling at heights varying from 122 cm - 213 cm (4' to 7') above floor level.

The LV-14ME air sampler includes a 1/4 HP oil-less, carbon vane vacuum pump with a constant airflow regulator for use where a nearly constant airflow is desirable.

The regulator holds a constant pressure drop across an in-line orifice by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum head drop at all times permitting it to run cooler; thus extending its lifetime. The oil-less pump requires no lubrication to maintain optimal efficiency during its service life. The pump is mounted on a mobile cart with two rubber wheels to permit mobile transportation of the unit.

The LV-14ME Air Sampling System is designed for continuous indoor operation. Please consult the product specification for the design temperature and the installation category.

The typical operating flow range is 1 to 3 CFM (10 - 100 LPM).

PUMP TYPE: Oil-less, carbon vane 1/4 HP; 50/60 Hz, 1 HP

MAXIMUM CAPACITY: 4 CFM (113 LPM) at 0" Hg Pressure drop

ULTIMATE VACUUM: 25" (635 mm) Hg at sea level

VACUUM GAUGE: 0" - 30" (0 - 762 mm) Hg

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

ELECTRICAL CORD: All temperature, 3-wire, 14 gauge

THERMAL OVERLOAD PROTECTION: Furnished as an integral part of the motor.

CONSTANT AIRFLOW REGULATOR: Aluminum construction with silicone diaphragm; adjustable

from 1 to 3 CFM (10-100 LPM)

DIMENSIONS: $50.8L \times 26W \times 213 \text{ cm H } (21" \times 14"W \times 84"H)$

WEIGHT: 30,4 kg (67 lbs.)

WHEELS: 8", hard rubber

SAMPLING HEIGHT: 122 – 213cm (4' to 7')

INSTALLATION CATEGORY: Pollution Degree 2

AVAILABLE ROTOMETERS SCALES:

 MODEL
 RANGE

 R10100
 10 - 100 LPM

 R13
 1 - 3 CFM

ELAPSED TIME INDICATOR: Resettable Type: 9999,9 minutes or hours.

COMBINATION FILTER HOLDER: Durable plastic combination filter holders for F&J Model B, C or M charcoal cartridges and 47 mm, 2" or 50 mm diameter particulate filter paper are available. All models have quick-disconnect function.

STANDARD COMBINATION FILTER HOLDERS AVAILABLE:

FILTER HOLDER MODEL	CHARCOAL CARTRIDGE <u>DIMENSIONS</u>	PARTICULATE PAPER <u>DIAMETER</u>
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

MOBILE ANALOG LOW VOLUME AIR SAMPLER F&J MODEL FJ-28BEMHT

NOTABLE FEATURES:

- Adjustable constant air flow regulator
- Easy access powder coat painted enclosure with exhaust fan
- Durable 1/4 HP oil-less carbon vane pump designed for continuous use
- Internal intake and exhaust mufflers
- Rotometer, flow measurement system
- 220-240VAC, 50/60Hz; single phase





GENERAL DESCRIPTION:

The Model FJ-28BEMHT heavy duty hand truck mounted mobile low volume air sampler designed for outdoor use with an adjustable, aluminum sampling gooseneck. The adjustable gooseneck permits sampling at heights varying from 4' to 7' above floor level. Model FJ-28BEMHT contains a standard rotameter for flow measurements. The air sampler is contained in a powder coat painted environmental enclosure mounted ~ 4 inches above ground level.

The FJ-28BEMHT Air Sampler includes an oil-less, carbon vane vacuum pump with a constant airflow regulator for use where a nearly constant airflow is desirable. The regulator holds a constant pressure drop across an in-line orifice by varying the flow through a bypass valve into the pump. This system allows the pump to work at a minimum pressure drop at all times, permitting it to run cooler, thus extending its lifetime. The oil-less pump requires no lubrication to maintain optimal efficiency during its service life. The pump is mounted on a rugged mobile hand truck with two 10.5" diameter pneumatic tires to facilitate mobile transportation of the unit.

The FJ-28BEMHT is designed for continuous indoor or outdoor use. Please consult the product specifications for the design temperature range and the installation category.

The typical operating flow range is 0.5 to 3.5 CFM (14 to 100 LPM) depending upon resistance of air filters utilized.

PUMP TYPE: Oil-less, carbon vane 1/4 HP, 50/60 Hz, 1HP

MAXIMUM CAPACITY: 4 CFM (115 LPM) at 0" Hg Pressure drop

ULTIMATE VACUUM: 25" (635 mm) Hg at sea level

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

CIRCUIT BREAKER PROTECTION: 10 amperes

ELECTRICAL CORD: All temperature, 3 wire, 14 gauge

THERMAL OVERLOAD PROTECTION: Furnished as an integral part of the motor

CONSTANT AIRFLOW REGULATOR: Aluminum construction with silicone diaphragm; adjusta-

ble from 0.5 to 4 CFM (10-115 LPM)

DIMENSIONS: 24"L × 21"W × 55"H (61cm × 53 cm × 140 cm)

SAMPLING GOOSENECK: Adjustable to 7' (213 cm) sturdy aluminum

WHEELS: 10.5"D, pneumatic tires

WEIGHT: 80 lbs. (36 kg)

INSTALLATION CATEGORY: Pollution Degree 3

OPERATING TEMPERATURE RANGE: 20° to 122°F (-7° to 50°C)

CALIBRATION: Calibration verification 1 per year

COMMUNICATIONS INTERFACE: RS-232

COUNTER-TOP CABINET FEATURES

- Two handles
- Exhaust fan; 100 CFM
- Easy-open maintenance door
- Removable top
- Multi-louvered sides

COMBINATION FILTER HOLDER:

Durable plastic combination filter holders for F&J Model B, C or M charcoal cartridges and 47mm, 2" or 50mm diameter particulate filter paper are available. All models have quick-disconnect function.



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

Tel: 352.680.1177

- 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