



F&J SPECIALTY PRODUCTS, INC.

The Nucleus of Quality Air Monitoring Programs

MOBILE LOW VOLUME AIR SAMPLER WITH DIGITAL FLOW METER F&J MODEL DF-14M-2G

STANDARD FEATURES:

- Bright OLED display
- Flowrate and volume totalizations displayed are corrected to a factory settable 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°C, 760mmHg
 - Standard Ambient T and P 25°C, 760 mmHg
- Reference and ambient flow conditions are displayed
- Elapsed time meter
- Storage of elapsed time and volume in the event of power outage
- Auto Shut-off on time or volume
- Choices of flow/volume units:
 - SLPM SL
 - SCMH SCM
 - SCFM SCF
- Display in English or metric units set at factory
- State of the Art microprocessor electronics
- Auto zero calibration feature of flow sensor
- Flow rate accuracy within $\pm 4\%$ F.S.
- 100 – 120 VAC, 50/60Hz; single phase
- Internal Data Storage Downloadable as (.csv) file
- Data download via Type A USB port wired connection or through Bluetooth with optional Bluetooth Dongle for PC Device

GENERAL DESCRIPTION:

The Model DF-14M-2G cart mounted mobile low volume air sampler with digital flow meter has an adjustable, aluminum sampling gooseneck. The adjustable gooseneck permits sampling at heights varying from 4' to 7' above floor level. Model DF-14M-2G contains state of the art microprocessor electronics, which provides for corrected flow rate measurements, volume totalizations, and a USB communications port. It has a large bright OLED display.

The DF-14M-2G Air Sampler includes an oilless, 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 mobile cart with two rubber wheels to permit mobile transportation of the unit.

The DF-14M-2G Air Sampler is designed for indoor use.

The typical operating flow range is 1 to 4 CFM (10 to 114 LPM).



DFM Main Screen Display

REV: 27 February 2025

DF-14M-2G Low Volume Air Sampler Specifications (100—120 VAC)

PUMP TYPE:	Oiless, carbon vane ¼ HP, 50/60 Hz, 1 PH
MAXIMUM CAPACITY:	4 CFM (114 LPM) @ 0" Hg Pressure drop
ULTIMATE VACUUM:	25" (635 mm) Hg @ sea level
POWER REQUIREMENTS:	100-120VAC; 50/60Hz; 6 amperes, single phase
CIRCUIT BREAKER PROTECTION:	10 amps
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 0.5 to 4 CFM (14-115 LPM)
DIMENSIONS:	18"L×15"W×4' – 7'H (46×38×122 - 213 cm)
NOISE LEVEL:	Average dB 70.0 @ 1 meter
WEIGHT:	67 lbs. (30,4 kg)
INSTALLATION CATEGORY:	Pollution Degree 2
OPERATING TEMP. RANGE:	32° to 104°F (0° to 40°C)
SAMPLING GOOSENECK:	Adjustable 4' to 7' (122 cm – 213 cm) sturdy aluminum
WHEELS:	8", hard rubber

ELECTRONIC SPECIFICATIONS:

MEASUREMENT ACCURACY:

Air flow	± 4% of full scale
Temperature	± 2°F (1,1°C)
Barometric Pressure	2% over measured range

CALIBRATION: Factory calibration 1 per year

COMMUNICATIONS INTERFACE: Type A USB port

ON-BOARD CALCULATIONS:

Flow calculation from differential pressure value suing best fit curve method

Flow correction for standard temperature and pressure

Auto-zero correction utilizing electro-pneumatic method to compensate for offset and drift (automatic, once every minute)

OPTIONS: Bluetooth Dongle for PC Device (P/N: BTDG)

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