



F&J SPECIALTY PRODUCTS, INC.

The nucleus of quality air monitoring programs

CARBON 14 COLLECTION SYSTEM F&J MODEL C14CS-3000E

NOTABLE FEATURES:

- Large, bright LED Display
- Microprocessor controlled electronics
- Flowrate measurements and volume totalizations are corrected to a factory settable reference Temperature and Pressure
 - 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
- Precision machined DP sensor
- Flowrate accuracy within $\pm 4\%$ F.S.
- Flowrate / Volume Options:
 - scm / scc
 - SLPM / SL
- LED dimming feature
- 220-240VAC, 50/60Hz, single phase



GENERAL DESCRIPTION:

The Model C14CS-3000E is a carbon 14 collection system consisting of a diaphragm pump, 12VDC brushless motor, two 500ml NaOH sampling vials with stainless steel caps and an overflow trap. The flow and volume of air passing through the system is adjusted and measured by a microprocessor controlled Digital Flow Meter (DFM). The DFM utilizes a precision-machined orifice to measure flowrate. The DFM displays on-board calculations on a bright large character LED display. Flowrate and totalized volume both corrected to a reference Temperature and Pressure and elapsed time are displayed.

Multiple operator selectable data download frequencies are available through the RS232 port for collection and/or storage of real-time data.

The unit 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 can vary from 100 - 500 sccm or 500 – 1000 sccm.

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C14CS-3000E Carbon 14 Collection System (220 – 240VAC)

SPECIFICATIONS:

PUMP TYPE:	Diaphragm
MOTOR:	12VDC brushless motor
CAPACITY:	Maximum 500 cc/min or 1000 cc/min
POWER REQUIREMENTS:	220 – 240VAC; 50/60 Hz; 1 ampere; single phase
CIRCUIT BREAKER PROTECTION:	5 amperes
ELECTRICAL CORD:	All temperature, 3-wire, 16 gauge
DIMENSIONS:	23 cm × 61 cm × 51 cm
WEIGHT:	26 kgs
INSTALLATION CATEGORY:	Pollution Degree 3

ELECTRONIC SPECIFICATIONS

MEASUREMENT ACCURACY

Air flow:	± 4% of full scale
Temperature:	± 0.9°F (0.5°C) (Not displayed)
Barometric Pressure:	± 0.6 inches Hg (Not displayed)

OPERATING TEMPERATURES: 32° to 122°F (0° to 50°C)

STORAGE TEMPERATURE: 0° to 122°F (-17° to 50°C)

CALIBRATION: Calibration verification once per year

COMMUNICATIONS INTERFACES: RS-232

ON-BOARD CALCULATIONS

- Flow calculation from differential pressure value corrected to a reference T and P
- Elapsed Time
- Cumulative Volume corrected to a reference T and P

OPTIONS:

- Flash Card Data Storage Device 232FCDS
- Flash Card (2 GB) 372239
- PC Flash Card Reader SDDR-199-A20
- Ruggedized Phone System CASRPS-DFM

NOTE:

Other CO₂ absorbing media may be utilized, such as ethanalamine.