Product Specifications

U.S. EPA Automated Equivalent PM_{10} Method: EQPM-1102-150

CARB California Approved Sampler (CAS) for PM_{10} and $PM_{2.5}$

True "Continuous Real-Time" Measurement

FH 62 C14 Series

Continuous Ambient Particulate Monitor

Key Features:

New technology that provides continuous "real-time" measurement by a C14 monitor

Radon gas activity measurement eliminates interference of natural airborne radioactivity

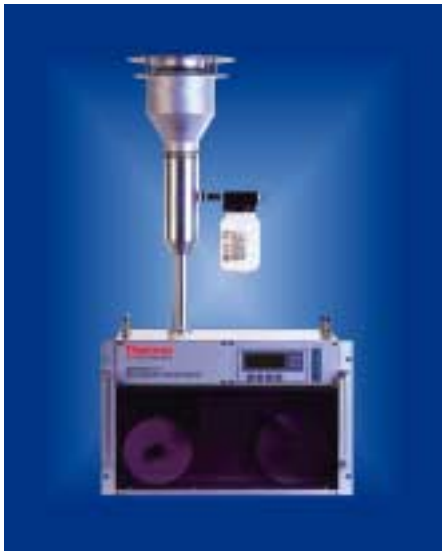
Control and data exchange over two serial interfaces possible

Storage of half-hour average concentrations over a whole year

User selectable reporting of mass concentration based on standard or actual flow rate

Processor controlled calibration of all sensors

Insensitive to vibration and diurnal temperatures



Refined Sensitivity

The FH 62 C14 Continuous Ambient Particulate Monitor measures the mass concentration of suspended particulate matter (e.g., TSP, PM_{10}, $PM_{2.5}$, PM_C and PM_1) by use of beta attenuation. In addition, the ambient radioactive influence of natural Radon (Rn-222) gas is measured as a refinement step toward better sensitivity at lower ambient particulate concentrations.

Accurate Results

The FH 62 C14 particulate sample collection area is located between both the C14 source and the proportional detector. While ambient particulate matter is being deposited onto a filter tape sample spot, the dynamic filter loading is measured continuously by the attenuation of the C14 source beta rays. As a result, a continuous " real-time" measurement of airborne particulate is provided. It is not necessary to move the filter spot from the sample position to the detector position for zero and mass determination.

FH 62 C14 Series Specifications

Measuring Principle	Continuous & simultaneous particulate collection coupled with beta ray attenuation
Source	Carbonium-14 (C14), <3.7 MBq (<100µCi)
Ranges	0 to 5,000 µg/m^3 or 0 to 10,000 µg/m^3
Minimum Detection Limit	<1 µg/m^3 (24-hour average); <4 µg/m^3 (1-hour average)
Precision of Two Monitors	± 2 µg/m^3 (24-hour)
Resolution	± 1 µg/m^3 (instantaneous)
Correlation Coefficient	R > 0.98
Measurement Cycle	Single filter spot in position for 24 hours (default); user selectable 30-minutes to 24-hours
Data Averages	Each full 1/2, and 24 hour values automatically stored; each full 1/2, 1, 3 and 24 hour values displayed
Air Flow Rate	1 m^3/h (16.67 lpm) measured across an internal subsonic orifice; user selectable from 0 to 20 lpm
Output	Serial interface RS 232 Analog output: 4-20mA or 0-10V output of concentration (µg/m^3)
Operating Temperature	-22 to 140°F (-30 to 60°C)
Power Supply	Instrument: 100-240V, 50/60Hz, 330W max., 15W without pump or heater Pump: 100-110/100-120V, 50/60Hz or 220/240V, 50/60Hz, 100W
Dimensions	Instrument: 19” (W) x 12.25” (H) x 13” (D) / 483mm (W) x 311mm (H) x 330mm (D) Pump: 8.25” (W) x 8.75” (H) x 4.25” (D) / 210mm (W) x 222mm (H) x 108mm (D)

Available Options

Adjustable Tube Heaters

Analog I/O Expansion Board

Filter Tape Printer

Foil Separation

TSP or PM_{10} Inlets

Mass & Flow Rate Calibration Kits

WINS Impactor, Sharp-Cut Cyclone & Very Sharp-Cut Cyclone for $PM_{2.5}$

Lit 62C14M403

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