

Ambient Fine Dust Sampler

PM 2.5/10

Model No. IPM-FDS 2.5µ/10µ



Instrumex Ambient Fine Dust Sampler is designed to meet the Federal Reference Method of U.S. EPA as described in 40 CFR Part 50 Appendix L for the determination of (PM_{2.5}) Fine Particulate Matter. It also confirms with the CPCB Guidelines for the Measurement of Ambient Air Pollutants.

Key Features:

- Confirms with U.S. EPA & CPCB guidelines
- Choice of sampling inlets for PM_{2.5}, PM₁₀ and TSP
- Precision flow control by Embedded Microprocessor
- Construction suitable for outdoor use
- A unique feature of in-filed data retrieval by USB interface for remote locations

Digital Flow Control with USB interface*

Product Specifications

PM_{2.5} Size Separator U.S. EPA designed PM₂₅ WINS Impactor

U.S. EPA Omni-directional ambient particle inlet with 10μ separation assembly & PM₁₀ Size Separator

sample transport tube

Filter Media Suitable for 47 mm Filter in special Delrin® Filter Cassette Carrier housed in

Filter Holder assembly

Temperature Ambient Temperature & Filter Temperature Measurement.

Measurements Range- 5°C to 50°C with a Resolution of 0.1°C.

Current Temperature values available on the instrument display.

Average, Maximum & Minimum Temperatures recorded post sampling

Barometric Pressure

Measurement

Ambient Pressure is measured continuously by a built in sensor.

Range 600 to 800 mm Hg. Resolution of 1 mm Hg.

Current Pressure values available on the instrument display. Average, Maximum & Minimum Pressure recorded post sampling

Clock / Timer System Programmable Real Time control system with automatic start & stop

Digital display of date, time & time of sampling. Accuracy $\pm 2 \min / \text{month}$

Leak Test Internal & External Leak check feature for accurate sampling

Vacuum Pump A diaphragm type pump with AC motor for reliable & low noise operation

Power Requirement $230 \text{ V AC} \pm 10\%, 50 \text{ Hz}$

Dimension & Weight Sampler Size (16x13x24)". Total height with Inlet and Stand (5.5). Approx 25 Kgs

Microprocessor Based Digital Flow Controller

Flow in LPM on digital display with a Resolution of 0.01 LPM. Flow rate maintained at **Sample Flow Rate**

16.67LPM (1m³/hr) \pm 5%, Accuracy \pm 2% of reading throughout the sampling period

Volume Totaliser Volume Totalized from flow rate & available on display with a resolution of 0.01m³

Interval Data Storage 5 Minute averages of Ambient Temperature, Filter Temperature, Barometric Pressure,

Real time Flow and Volumetric Flow Rate

User Interface A Simple menu driven interface & soft function keys for easy operation even by

unskilled personnel

Flow Rate Computation Flow is recorded as Average flow rate, Total Volume Sampled and

Percentage Coefficient of Variation

Display 20x4 LCD display showing following parameters in real time:

Flow Rate, Volumetric Flow, Ambient Temperature, Filter Temperature, Barometric Pressure

Warning Flag Indicator

Warning Flag Indicators for certain conditions going out of specification

Data Transfer Option* Convenient in-field data transfer on a USB drive by an optional USB Interface.

Enables user to generate reports even while sampling at remote locations.

Default option is RS-232 serial port





