



DUAL CHANNEL AMBIENT DUST SAMPLER

Model No. *IPM-FDS-2510*



Key Features:

- Dual Channel enables measurement of PM-10 & PM2.5 Simultaneously
- PM-10 Confirms to 40 CFR, Part 50 Appendix J of USEPA
- PM-2.5 Confirms to 40 CFR, Part 50 Appendix L of USEPA
- Microprocessor based precision flow control for each channel
- Data Logging of all parameters for each channel
- Data Retrieval by USB and RS-232 ports
- Extremely portable with foldable tripod stand and carry case

PM-10
PM-2.5
in One

Overview:

When it comes to innovation in Ambient Air Sampling technology, Instrumex has delivered yet again! The most common hassle faced by Consultants in order to comply with the CPCB norms for Ambient Air Sampling - was using two separate instruments for measurement of PM2.5 & PM10 Dust. Instrumex has found the solution to this problem - The Dual Channel Sampler for measurement of PM2.5 & PM10 dust concentrations in ambient air – **Simultaneously!**

The flow control module uses the proven technology used in Instrumex's IPM-FDS 2.5/10 μ Fine dust Sampler that has enjoyed over 400 installations across India and abroad. The two channels in IPM-FDS-2510 are individually controlled by separate flow control element but integrated into a single controller module. Thereby giving precise microprocessor based flow control for two channels. Both the channels individually comply with Federal Reference Method of **USEPA** as described in 40 CFR Part-50 Appendix L for determination of Particulate Matter. It also confirms with the **CPCB** guidelines for Measurement of Ambient Air Pollutants.

Specifications:

PM 2.5 Size Separator	Separate set of inlet assembly with EPA PM 2.5 WINS Impactor
PM 10 Size Separator	EPA Omni - directional ambient particle inlet with 10 μ separation assembly & sample transport tube.
Flow Rate Meter & Volume Totaliser (USEPA Procedure Followed)	Flow in LPM on Digital Display for both the channels with a Resolution of 0.01 LPM under actual operating conditions. Flow rate maintained Constant @ 16.67 LPM with $\pm 2\%$ Accuracy Throughout Sampling Period using Microprocessor Based Digital
Clock / Timer System	Programmable Real Time control system with automatic start & stop & digital display of date & time & time of sampling.
Temperature Sensors	For Ambient temperature & Two Filter temperatures for PM2.5 and Pm10 each. Range - 5°C to 50°C with a Resolution of 0.1°C.
Bar Press Sensor	Range 600 to 800 mm Hg. Resolution, 1 mm Hg
Leak Test	Internal & External Leak check feature for accurate sampling.



Control Module & Vacuum Pump Housing

Microprocessor Based Digital Flow Controller.

Sample Flow Rate	Flow in LPM on digital display for both the channels with a Resolution of 0.01 LPM under actual operating conditions. Flow rate maintained at 16.67LPM (1m ³ /hr) $\pm 5\%$, Accuracy $\pm 2\%$ of reading throughout the sampling period. Calibrated from FCRI , Palakkad.
Volume Totaliser	Volume Totalized from flow rate & available on display with a resolution of 0.01m ³
Interval Data	5 Minute averages of Ambient Temperature, Filter Temperature, Barometric Pressure, Real time Flow and
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	Switchable Display to select parameter for Channel - 1 or Channel - 2 20x4 LCD display showing parameters in real time. <ul style="list-style-type: none"> ● Flow Rate (16.67)LPM ● Barometric Pressure ● Filter Temperature ● Volumetric Flow ● Ambient Temperature
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.



Flow Controller & LCD Display

** Also Available without Tripod Stand. Two inlets mounted on the Control module housing. ON REQUEST*

**Continuous product development and innovation are the policy of our company. Therefore, we reserve the right to change the specifications without prior notice.*



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