



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY MATERIALS  
MANAGEMENT DIVISION  
Powai, Mumbai 400076.**

**Ref No.(PR No. 1000035616)**

**(Rfx No. 6100001583)**

Sl. No.	Technical Specifications	Quantity	Compliance	Remarks												
1	<p><b>Dual Channel Ambient Fine Dust Sampler, For Simultaneous Measurement of PM2.5 And PM10 in Ambient Air.</b> <b>Microprocessor Based Model with Data Logging for all 5 parameters.</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2"><b>Designed As Per International Standards as per USEPA Compliances &amp; Indian CPCB Guide Lines</b></td> </tr> <tr> <td style="width: 20%;"><b>PM 10 Inlet</b></td> <td>USEPA based Omni-directional ambient particle inlet with 10<math>\mu</math> separation assembly &amp; sample transport tube.</td> </tr> <tr> <td><b>PM 2.5 Inlet</b></td> <td>USEPA based PM10 Inlet coupled with USEPA based PM 2.5 WINS Impactor for separation of coarse particles.</td> </tr> <tr> <td><b>Filter Media</b></td> <td>Designed for accommodating any filter paper having size 47mm (for PM10) or 46.2mm (for PM2.5)</td> </tr> <tr> <td><b>Flow Rate Meter &amp; Volume Totaliser</b></td> <td>Dual channel Flow display for PM2.5 and PM10 in LPM with a Resolution of 0.01 LPM under actual operating conditions. Cumulative Volume totalization after every 30 seconds available on Display with resolution of 0.01m<sup>3</sup></td> </tr> <tr> <td><b>Flow Control as per FRM sampler guidelines of USEPA</b></td> <td>Flow rate for both channels (PM2.5 &amp; 10) independently maintained Constant @ 16.67 LPM with <math>\pm 2\%</math> Accuracy throughout Sampling Period using indigenously</td> </tr> </table>	<b>Designed As Per International Standards as per USEPA Compliances &amp; Indian CPCB Guide Lines</b>		<b>PM 10 Inlet</b>	USEPA based Omni-directional ambient particle inlet with 10 $\mu$ separation assembly & sample transport tube.	<b>PM 2.5 Inlet</b>	USEPA based PM10 Inlet coupled with USEPA based PM 2.5 WINS Impactor for separation of coarse particles.	<b>Filter Media</b>	Designed for accommodating any filter paper having size 47mm (for PM10) or 46.2mm (for PM2.5)	<b>Flow Rate Meter &amp; Volume Totaliser</b>	Dual channel Flow display for PM2.5 and PM10 in LPM with a Resolution of 0.01 LPM under actual operating conditions. Cumulative Volume totalization after every 30 seconds available on Display with resolution of 0.01m <sup>3</sup>	<b>Flow Control as per FRM sampler guidelines of USEPA</b>	Flow rate for both channels (PM2.5 & 10) independently maintained Constant @ 16.67 LPM with $\pm 2\%$ Accuracy throughout Sampling Period using indigenously	16	Yes	
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		developed Microprocessor Based Digital Dual Flow Controller.			
<b>Clock / Timer System</b>		Programmable Real Time control system with Automatic start & stop & Digital Display of Date & Time & Time of Sampling. Accuracy $\pm 2$ min / month.			
<b>Temperature Sensors</b>		One Ambient Temperature & 2 Filter Temperatures (for PM2.5 and PM10) Range - 5°C to 50°C With a Resolution of 0.1°C.			
<b>Bar Press Sensor</b>		Range 600 to 800 mm Hg. Resolution, 1 mm Hg			
<b>Display</b>		20x4 LCD display showing parameters in real time with switchable option for viewing PM2.5 or PM10 parameters <ul style="list-style-type: none"> <li>• Flow Rate in LPM</li> <li>• Volumetric Flow in m<sup>3</sup></li> <li>• Barometric Pressure in mmHg</li> <li>• Ambient Temperature in Deg C</li> <li>• Filter Temperature in Deg C</li> </ul>			
<b>Output Terminal</b>		<b>RS-232C for connection to PC and USB Flash Drive</b>			
<b>USB PORT</b>		USB Interface for remote data logging into PEN/USB drive. (Data Transfer Module)			
<b>Calibration</b>		Factory Calibration Certificate			
<b>Accessory 1</b>		Thermoelectric Gaseous Sampling Attachment IPM 117 (16 Nos)			
<b>Accessory 2</b>		MS Coated Carry Case (16 Nos)			
<b>Warranty</b>		12 Months from the date of Dispatch			