

AELAB Continuous Particulate Monitor

The BPM-200 measures ambient particulate by using well applied beta ray attenuation technology. PM2.5 measurement can also be achieved by introducing corresponding cyclone.

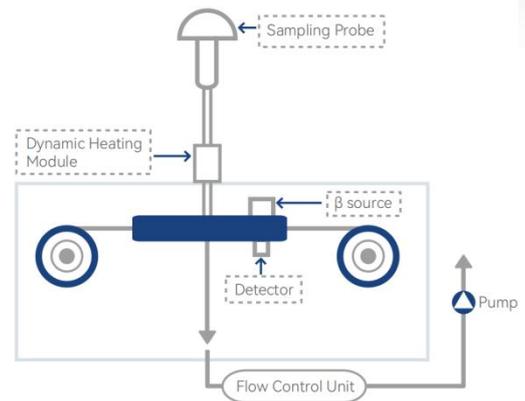
Principle

Particulate matter sample is pulled by a vacuum pump and concentrated on filter tape spot, the concentrated sample is advanced to measuring position where between beta ray source and detector. An attenuation signal of beta ray is detected which represents the mass of sample particulate. Particulate concentration can be determined by dividing mass to volume which has been strictly controlled during sampling with fixed flow rate.



Features

- ◆ Compliance with US EPA equivalent method
- ◆ Automatic continuous operation up to 60 days
- ◆ Reference film calibration
- ◆ Stable and long life time radiation source
- ◆ Low maintenance and operation requirement
- ◆ User selectable measurement cycle
- ◆ Various output with serial printer and GPRS as optional



Specifications

Principle	Beta ray attenuation
Resolution	0.1 $\mu\text{g}/\text{m}^3$
Lower Detectable Limit	0.002 mg/m^3
Accuracy	$\leq 2\%$
Range	(0~1) mg/m^3 , (0~2) mg/m^3 , (0~5) mg/m^3 , (0~10) mg/m^3 (Selectable)
Sample Flow Rate	16.7L/min
Display	LCD
Flow Accuracy	$\pm 1\%$ F.S
Flow Stability	$\leq \pm 2\%$ /24h(Optional)
Calibration Film Reproducibility	$\leq \pm 2\%$
Sample Cycle	60min(Optional)
Source	C14 source, active10 μCi , exemption source
Filter Paper Tape	Glass fiber
Roll Length	>20meters
Detector	PMT
Output	RS232, RS485, Ethernet
Data Transmission	2 analog (0~5) V; 2 channel analog (4~20) mA; 12 digital input/output; 4-way relay output;
Power Supply	(220 \pm 22)V AC, (50 \pm 1)HZ
Operating Temperature	(-5~55) $^{\circ}\text{C}$
Ambient Humidity	0~95%RH(No condensation)
Ambient Pressure	86~116kPa
Dimensions	310(H)x430(W)x400(D)mm
Weight	\approx 25kg, without accessories