



**KANOMAX**  
The Ultimate Measurements

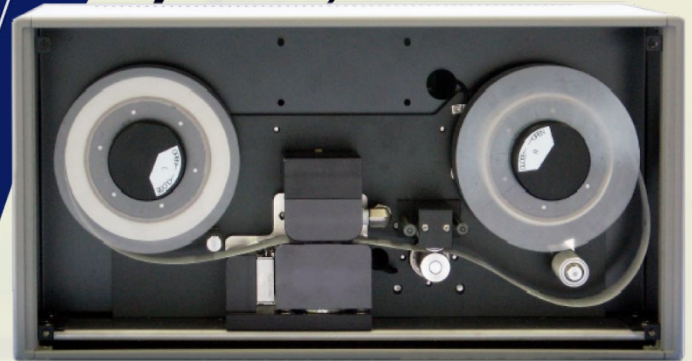
# Black Carbon Monitor

## Model 3130

The Model 3130 is a continuous soot monitoring system for fully automated, high-sensitivity, continuous measurement of light absorption by black carbon aerosols.

### Applications

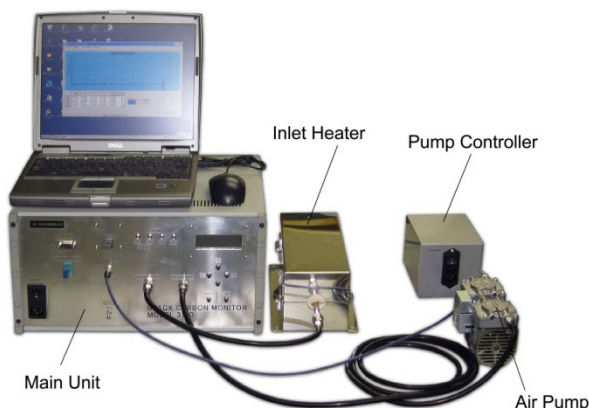
- Assessment of black carbon causing health hazards in metropolitan environments
- Creation of basic data for environmental assessment
- Black carbon impact assessment for global warming studies
- Black carbon source monitoring
- Investigation and monitoring of black carbon diffused from remote locations
- Impact assessment of how black carbon affects mountain and polar snow regions



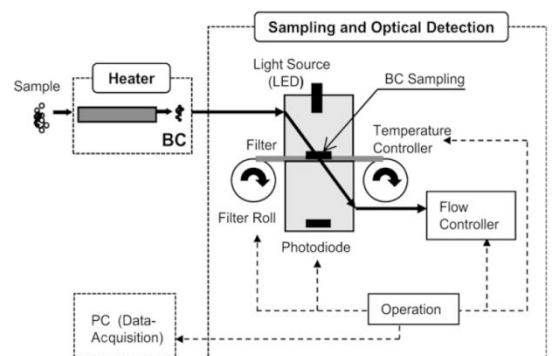
### Features & Benefits

- Advanced detection sensitivity enables measurement in low concentrated areas
- The monitor measures black carbon concentration in the air in real time
- Preprocessing of sample air improves measurement accuracy
- Automatic filter feed enables continuous measurement for extended periods

**System Components** (PC is not included)

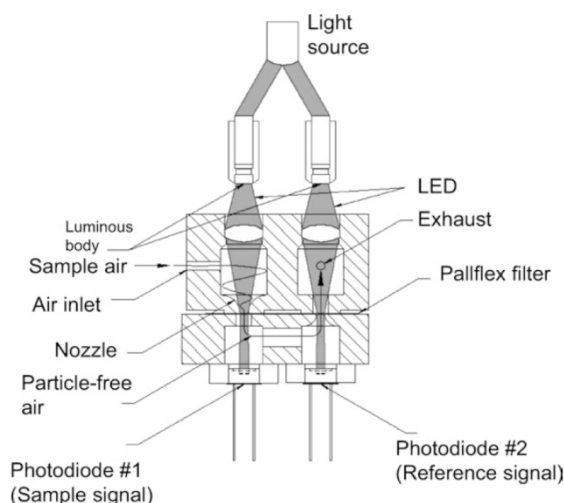


**System Diagram**



## ■ Cross-section of the filter and optical setup

The Model 3130 monitors changes in transmittance across an automatically advancing quartz fiber filter tape using an LED at a 565 nm wavelength. To achieve measurements with high sensitivity and a lower detectable light absorption coefficient, the Model 3130 uses a double-convex lens and optical bundle pipes to maintain high light intensity and signal data, obtained at 1000 Hz.



### Black Carbon Monitor Model 3130 Specifications

<b>Measurement Method</b>	Light Absorption Method
<b>Light Source</b>	LED Wavelength 565 nm
<b>Lowest Detection</b>	0.05 $\mu\text{g}/\text{m}^3$ @1 min @0.8 L/min
<b>Measurement Interval</b>	1 min ~ 5 min
<b>Collection Flow Rate</b>	0.8 L/min
<b>Collection Filter</b>	Fiberglass Filter (Length : 12 m)
<b>Display</b>	Display (LCD) : 20 characters $\times$ 4 lines Shows Time, Black Carbon Concentration, Alarm etc
<b>Data Output</b>	USB
<b>Power Supply</b>	AC100 V $\pm$ 10% , 6A
<b>Dimension</b>	430(W) $\times$ 352(H) $\times$ 222(L)mm
<b>Weight</b>	17 kg
<b>Components</b>	Main Unit, Inlet Heater, Pump, Pump Controller, 2.5 $\mu\text{m}$ Cut Impactor, Power Cable, CD for Software

Specifications subject to change without notice.



#### KANOMAX JAPAN INC.

2-1 Shimizu Suita-shi, Osaka 565-0805 JAPAN

TEL: +81-6-6877-0177

FAX: +81-6-6877-6849

E-mail: aerosol@kanomax.co.jp

URL: <http://www.kanomax.co.jp>

Distributed by:

