# **Clearing the Air** Black Carbon Monitoring Solutions









## **Advanced Solutions for Tracking Black Carbon**

Black Carbon (BC), also known as soot, is a highly impactful pollutant emitted from incomplete combustion processes like burning fossil fuels, biomass, and waste. Not only does black carbon pose significant risks to respiratory health, but it also contributes to climate change and negatively affects air quality on both local and global scales.

Our black carbon monitoring solutions help you take control of black carbon emissions. This empowers you to make informed decisions and implement effective strategies for reducing this potent pollutant. Join us in fostering a cleaner and healthier future by monitoring Black Carbon sources, concentrations, and trends. Take the first step towards a more sustainable tomorrow.



& safety



Weatherproof enclosure & solar powered

Research-grade, robust,

dependable instruments



Rack-mounted or portable/remote options

Connect & share real-time,

load-compensated data

## **BC 1054 Black Carbon Analyzer**

The BC 1054 is a multi-wavelength black carbon analyzer which offers a dependable and costeffective solution for collecting research-grade data of atmospheric carbonaceous matter. It measures light transmittance across a filter media, where the particles accumulate, at ten different wavelengths between the UV and IR part of the spectrum. This allows an in-depth characterization of the collected particles, probing deep enough into their origin and history.

#### **Key Features**

- Built-in filter-loading correction algorithm
- Measures light transmittance at 10 wavelengths (UV to IR)
- Real-time remote data access without an external logger
- Ultra-high sensitivity, detecting concentrations as low as 1 ng/m<sup>3</sup>
- Robust design with automatic calibration
- Active flow control
- Optional flow dilution system for high concentration environments
- Large internal data storage and intuitive user interface





## BC 1060 and BC 1065 **Portable Black Carbon Monitors**

Our BC 1060 and BC 1065 portable Black Carbon The BC 1060 (shown) is a stand alone instrument and may monitors measure and report Black Carbon be set up in a matter of a few minutes on the optional stand concentrations, with user-selectable time resolution (shown) or on a user-provided platform. The BC 1065 is down to one minute, at both UV (370 nm) and a rack-mounted version of the BC 1060 and is useful for IR (880 nm) illumination wavelengths. The combination applications where an existing shelter is available. of portability and dual-wavelength illumination permits rapid, easy deployment on a broad scale for source apportionment determination (fossil fuel vs. biomass combustion), roadside monitoring, and emergency responder applications. The BC 1060 and BC 1065 can continuously sample for up to 6 months with a single roll of filter tape.

- Two channels UV 370 nm & IR 880 nm
- CCS COMET cloud plus+ compatible
- Built-in flow dilution system for high concentration environments
- Self-contained weatherproof enclosure (BC 1060)
- Rack-mounted (BC 1065)
- Up to 6 months of operation per tape roll
- Highly portable 35 lbs./16 kg (BC 1060)
- Filter tape load correction





## C-12 Portable Black Carbon Monitor

The C-12 is a portable, self-enclosed, weatherproof dual-wavelength carbon monitor that measures black and brown carbon at 880 nm and 370 nm. It offers high sensitivity, detecting concentrations below 70 ng/m<sup>3</sup> at 1-minute intervals. C-12 allows for highly granular measurement of black and brown carbon at an unbeatable total cost of ownership.

The C-12 is compatible with data loggers and supports real-time cloud communication. With low power consumption and long filter tape life, it's a durable and cost-effective solution for precise carbon tracking.

#### Applications

- Air quality surveillance
- Global climate change studies
- Particulate emission studies
- Visibility studies
- Climatology research
- Source apportionment determination
- Angstrom absorption exponent determination

#### **Key Features**

- Filter tape load correction
- Ultra-low power consumption
- Long filter tape life with 500 advances per roll
- Multiple mounting options (pole, wall, tripod)
- Time-tested, durable technology with precision measurements





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