envirocon instrumentation

NEW! PM10 / PM2.5 Portable Particulate Monitor

BENEFITS

- ⊘ Measure PM10 and PM2.5 simultaneously
- ⊘ Add up to 30 different gaseous pollutants (CO, CO2, NO2, VOC, O3, SO2, H2S and
- ⊘ Active fan sampling ensures highest possible accuracy
- ⊘ Monitor fits comfortably in the hand
- ⊘ Automatic humidity compensation
- ⊘ Can be field calibrated to a trusted reference source
- ⊘ Long life lithium battery allows a full 24 hours in the field
- ⊘ Download data direct to PC via USB
- ⊘ Free PC software (Windows 7, 8, XP and above compatible)

APPLICATIONS

- ⊘ Ambient (outdoor) air quality surveys
- ⊘ Checking pollution "hotspots"
- ⊘ Validating air quality models
- ⊘ Indoor air quality testing
- ⊘ Personal exposure monitoring
- ⊘ Short term fixed monitoring

PORTABLE PARTICULATE MONITOR PM10 / PM2.5

Aeroqual is excited to introduce a truly handheld portable particulate monitor for accurate and simultaneous measurement of PM10 and PM2.5 in ambient outdoor and indoor environments.

Compatible with Aeroqual's Series 200/300/500 air quality monitors, the portable particulate monitor will output particulate matter (PM) measurements for PM10 and PM2.5 in real-time.

The monitor can also be used to measure gaseous pollutants such as carbon monoxide (CO), carbon dioxide (CO_2), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), and hydrogen sulfide (H_2S). Simply swap the PM sensor head for the gas sensor head of your choice.

HOW DOES IT WORK?

The PM sensor head uses a laser and optical sensor to measure light scattered from particles passing through the laser beam. The optical sensor transforms scattered light into electrical signals which are processed to provide mass measurements – in this case PM2.5 and PM10.

Active sampling and humidity compensation
Like all Aeroqual sensor heads the PM sensor head has an in-built fan to ensure a stable and precise flow of sample air to the sensor. The sensor head also compensates for humidity by way of an on-board humidity sensor. In humid conditions light scattering sensors are likely to read high because moisture surrounds particles, causing them to appear 'bigger'. The humidity compensation feature reduces this effect on the measurement.

Display and K factor application
The PM sensor head is supplied factory-calibrated and ready to use. An electrical signal is passed from the sensor head to the Aeroqual Series 200/300/500 base unit which displays the measurements on the screen in micrograms per cubic metre (mg/m^3). In the case of the Series 300 and 500 base units, a gain (or K factor) can

be applied to the sensor output. This allows users to adjust the readings relative to a trusted source such as EPA-approved reference monitor.

Battery and datalogging

The Series 200/300/500 monitors come with a long-life Lithium battery. When using the PM sensor head the battery allows for 24 hours of remote operation between charges. Recharging takes just 3 hours. The monitor can be plugged into the mains and left to run indefinitely. Finally, in the Series 500 model, measurements can be stored on the device and downloaded later to a computer via the USB cable and bundled software.

The Portable PM10 / PM2.5 Monitor is also compatible with the full range of Aeroqual gas sensors:

Ammonia Sensor 0-1000ppm
Ammonia Sensor 0-100ppm
Carbon Dioxide Sensor 0-2000ppm
Carbon Dioxide Sensor 0-5000ppm
Carbon Monoxide Sensor 0-1000ppm
Carbon Monoxide Sensor 0-100ppm
Carbon Monoxide Sensor 0-25ppm
Chlorine Sensor 0-10ppm
Formaldehyde Sensor 0-10ppm
Hydrogen Sensor 0-5000ppm
Hydrogen Sulfide Sensor 0-100ppm
Hydrogen Sulfide Sensor 0-10ppm
Methane Sensor 0-10000ppm
Nitrogen Dioxide Sensor 0-1ppm
Non Methane Hydrocarbons 0-25
Ozone Sensor 0-10ppm
Ozone Sensor 0-0.5ppm
Ozone Sensor 0-0.15ppm
Ozone Sensor 0-0.05ppm
Particulate Matter Sensor PM10 / PM2.5
Perchloroethylene Sensor 0-200ppm
PID Sensor 0-2000ppm
PID Sensor 0-20ppm
Sulfur Dioxide Sensor 0-100ppm
Sulfur Dioxide Sensor 0-10ppm
VOC Sensor 0-500ppm
VOC Sensor 0-25ppm