NanoMonitor

Continuous and accurate measurement of ultra-fine and nano-particles

Aerasense

PHILIPS

Airborne ultra-fine and nano-particles pose a recognized threat to hundreds of millions of people throughout the world. When inhaled they are deposited deep in the lungs, where they can lead to respiratory problems and other illnesses. Present in everything from vehicle exhausts, chemicals and tobacco smoke to emissions from gas cookers and industrial processes like nano particle production and welding, these invisible particles can have a serious impact on our health and well-being.

Accurate, permanent real-time monitoring

The Aerasense NanoMonitor is a compact, wall-mounted device that enables ongoing, real-time detection of these potentially hazardous particles, so you can realize healthier and 'greener' buildings. It offers many advantages over established scientific particle monitoring solutions, including greater compactness, permanent measurement and easy interfacing with building management systems and data logging solutions. Combining all this with ease of use (it can be operated without professional training) and high accuracy, the NanoMonitor really offers something different in fixed-location monitoring.

It is ideal for occupational health applications and for continuous registration of both indoor and outdoor pollution levels. It would typically be used to safeguard healthy air quality at industrial sites and in laboratories, as well as in offices, schools and hospitals close to busy roads and/or with nano-particle-emitting sources like printers or photocopiers. The NanoMonitor helps you carry out long-term pollution studies, visualize and improve air quality for building users, improve maintenance of filter installations and establish smart, energy-saving ventilation solutions.*

* For mobile monitoring at various locations, a hand-held version, known as the NanoTracer, is available.

"When based in a big city, as our building is, ultra-fine particles have to be on your agenda. Aerasense showed me that some of our filtration systems weren't working according to the guidelines and important changes were made. We are now much more proactive about improving our indoor air quality."

Facility Manager of a large bank office in Amsterdam, the Netherlands

Accurate and thorough

- Detects ultra-fine airborne particles (10 to 300 nm)
- Carries out continuous, real-time measurement
- Measures particle concentration
- Patented technology
- Independently-validated accuracy (by the German Institut für Gefahrstoff-Forschung)

Convenient

- Compact
- Simple operation
- No addition of liquids required
- Minimal maintenance requirements for the user
- Silent operation

NanoReporter software

The NanoMonitor is supplied together with the specially-developed NanoReporter software, which gives you easy yet powerful analysis, comparison and archiving of measurement data. You can view both on-line and saved measurement data in either graphical or numerical format.

Other benefits include:

- Real-time display of measurements from NanoMonitor
- Intuitive, straightforward user interface
- One-click report generation
- Comparison of up to four different measurements
- Export of data for further post-processing

Technical specifications

Measurement units
Particles/cm^3 *

Concentration range
0-10^6 ultra-fine particles/cm^3

Output signal
Analog 0-10 V or 4-20 mA

Time resolution
User-adjustable (min. 3 sec)

Data presentation
Via display on the NanoMonitor and on a PC running NanoReporter software (provided)

Internal data storage
None

Communication
USB

Measurement technology
Diffusion charging

* particles in the ultra-fine range of 10-300 nm assuming an average size of 50 nm

Operating conditions
0-35°C, with optimal performance at room temperature
0-90% relative humidity (non-condensing)

Power supply
24 V DC/AC (Class 2) or
24 V DC mains adapter

Dimensions (H x W)
16.5 x 9.5 cm

Airflow
0.3 - 0.4 l/min

Support and maintenance
- Periodic maintenance and calibration services available
- The NanoMonitor can be used in intermittent mode to extend maintenance intervals

Certification
CE

Contact information
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