



Product data sheet

NANEOS Partector Nanoparticle detector



Applications

- Aerosol Science
- Environmental and climate studies
- Inhalation studies
- Indoor and work place environments

Benefits

- Miniature and lightweight
- Easy to use push-button sampling
- Integrated measurement, survey first, sample only when necessary
- TEM grids can be exchanged in the field easily with 6 grid holders
- Automatic determination of the optimal sampling time: because it measures the nanoparticle concentration, it knows when to stop sampling.
Online display of current sample coverage

Description

The naneos partector TEM sampler is the perfect marriage between simplicity and power: You can use it as a simple survey instrument to quickly identify nanoparticle sources in workplaces. You can also use it to sample particles directly to a standard transmission electron microscope (TEM) grid. The TEM is the most powerful analytical technique when it comes to single particle analysis. The partector TEM allows you to assess workplace safety comprehensively with a single instrument. The partector TEM sampler is the only nanoparticle sampler that can determine the coverage of the sample online, and stop sampling when the optimal coverage is reached. You will never have empty or overloaded samples again.

Accessories

The partector TEM sampler comes in a rugged transport case that contains all accessories necessary:

- Protective neoprene sleeve - protects the instrument from dirt, water and shocks, and contains a belt loop to attach it to a belt for personal monitoring.
- Micro-SD-card to USB adapter - to easily read data from the partector's integrated micro-SD-card.
- USB charger - a standalone USB charger to either charge the partector or run it 24/7 indefinitely
- 6 TEM grid holders that can be pre-loaded in the lab, and exchanged in the field.
- Tweezers
- Box for TEM grids

Specifications

- LDSA measurement with a time resolution of 1 second (internal instrument time constant 4s; faster on request)
- Wide concentration range, from 1-20'000 $\mu\text{m}^2/\text{cm}^3$
- Wide particle size range, from 10 nm to 10 μm
- Size: 142x78 x 29 mm
- Weight: 430 grams
- Electrostatic deposition of particles on standard 3.05mm TEM grids
- Flow rate: 0.45 lpm
- Sampling efficiency: approximately 3% at 50nm.
- 6 exchangeable grid holders
- Automatic determination of optimal sampling time, device stops sampling when grid has optimal coverage.
- Internal rechargeable Li:Ion battery
- Data storage on a μSD -card (enough space for many years of data!)
- Graphical display
- High concentration alarm with adjustable threshold
- Includes a java data analysis tool that runs on all major operating systems