MFP Nano plus 4000



The MFP Nano plus 4000 is specially designed to clearly determine the separation efficiency of HEPA and ULPA filter media in accordance with DIN EN 1822-3 and ISO 29463-3. The U-SMPS is a modern and powerful nanoparticle measuring device with a measuring range of 5 nm to 1 μm for particle size and quantity analysis. In the MFP Nano plus 4000, the separation efficiency at a specific size is measured simultaneously with one UF-CPC condensation core counter each in raw and clean gas.

Benefits

- Real-time determination of the fraction separation efficiency above 20 nm
- Half the measurement time thanks to simultaneous measurement in the upward and downward directions
- No dilution necessary!
- Combining two UF-CPC versions, the UF-CPC for the highest concentrations, up to 2,000,000 particles/cm^3 (single count mode) in the raw gas and the UF-CPC 50 for top counting rates at low concentrations
- Simple use of different test aerosols, such as NaCl / KCl or DEHS (others on request)
- Simple measurement of the fraction separation efficiency and determination of the MPPS range
- High reproducibility of the test method
- Cleaning can be performed independently by the customer
- Short set-up times, fast throughput times
- Mobile set-up, easy to move on castors

Applications

- Testing of filter media and small mini filters in product development and production monitoring
- Testing capability according to DIN EN 1822-3 (HEPA / ULPA) and ISO 29463-3
- Fractional efficiency measurement for other filter media in the range of approx. 20 nm to 1 μm

Features

- Measurement of fractional efficiency and pressure loss vs. volume flow
- Simultaneous use of two condensation core counters (UF-CPC 50)
- Customized filter adapters and adaptations in the air duct possible
- Checking volume flow and pressure loss using a perforated plate

https://www.palas.de/en/product/mfpnanoplus4000

DATASHEET

Aerosols	Dusts (e.g., SAE dusts), salts (e.g., NaCl, KCl), liquid aerosols (e.g., DEHS)
Test area of the medium	100 cm^2
Measurement range (size)	U-SMPS: 10 – 800 nm
Volume flow	0.48 – 5.76 m^3/h - pressurized operation
Power supply	115 – 230 V, 50/60 Hz
Differential pressure measurement	0 – 2,500 Pa (others on request)
Inflow velocity	1.3 – 16 cm/s (others on request)
Compressed air supply	6 – 8 bar
Dimensions	Approx. 760 • 2,100 • 985 mm (H • W • D)

NORMS AND CERTIFICATES

EN 1822-3, ISO 29463-3