ENVI-CPC 100

The ENVI-CPC 100 is a butanol-based particle counter with high efficiency for monitoring ultrafine particle (UFP) concentrations in the ambient air. The Model 100 is designed for typical concentrations of up to 10^5 particles/cm^3. It is part of our modular nanoparticle measurement system. It can be combined with different systems for measuring the size distribution and concentration of UFP (Scanning Mobility Particle Spectrometer / Mobility Particle Size Spectrometer). The patented evaporator and condensation module is maintenance-free. This allows continuous operating times of up to one year without maintenance and cleaning - unique.

The system meets the requirements of the current standard EN 16976:2024 (Harmonized measurement of number concentrations using CPC) in all areas. It can be operated directly with a NAFION® based sampling system if desired. The pumps required ...

Benefits

- The unique, patented way of providing the working fluid for unattended operation for months
- Intuitive user interface with sophisticated software for data evaluation
- Limitless, integrated network connectivity that supports remote operation and data storage on the internet
- Powerful software package
- Low maintenance

Applications

- Aerosol Research
- Environmental measurements
- Environmental monitoring measurement networks
- Workplace safety and occupational exposure studies
- Traffic emission monitoring
- Health studies
- Mobile aerosol studies

Features

- Expandable to U-SMPS spectrometer
- Automatic measurement data storage
- Measurement of the particle size distribution of condensed particles for quality assurance
- Integrated pump
- Integrated computer with 7″ touchscreen

DATASHEET

Measurement range (number C_N)	10^5 particles/cm^3 (single count mode), 10^5 – 10^7 particles/cm^3 (nephelometric mode)	Measurement range (size)	4 – 5,000 nm
Volume flow	0.9 l/min	Interfaces	USB, Ethernet (LAN), RS-232/485
User interface	Touchscreen, 800 • 480 pixel, 7″ (17.78 cm)	Detection efficiency (at low particle size)	D50 = 10 +/- 1 nm; D90 < 20 nm
Data acquisition	Digital, 20 MHz processor, 256 raw data channels	Light source	Long term stable LED
Power supply	115 – 230 V, 50/60 Hz	Installation conditions	+10 – +30 °C (others on demand)
Accuracy	5% (single count mode), 10% (nephelometric mode)	Response time	t_{90} < 3 s
Operation liquid	Butanol	Dimensions	330 • 380 • 240 mm (H • W • D)
Weight	Approx. 10 kg	Data Management	Prepared for connection to the Palas Cloud MyAtmosphere (″MyAtmosphere-ready″); internet access and separate registration required.MyAtmosphere terms and conditions of use apply.