ENVI-CPC 50

The ENVI-CPC 50 is a butanol-based particle counter with high efficiency, especially for the smallest nanoparticles. It can monitor concentrations of ultrafine particles (UFP) in outdoor air. The Model 50 is designed for concentrations up to 10^4 particles/cm^3. This makes it ideal for long-term measurement- alone or as part of an overall system for measuring the size distribution and concentration of UFP.

The patented evaporator and condensation module is maintenance-free. This allows continuous operating times of up to one year without maintenance and cleaning - unique so far.

The system meets the requirements of the 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 for this are already integrated.

Benefits

- The unique, patented way of providing the working fluid for unattended operation of months
- Intuitive user interface with sophisticated software for data evaluation
- Limitless integrated network connectivity that supports remote operation and data storage in 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)	10^4 particles/cm^3 (single count mode), 10^4 – 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.