

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/cm³. 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 (number C_N)	range	10^5 particles/cm ³ (single count mode), $10^5 - 10^7$ particles/cm ³ (nephelometric mode)	Measurement (size)	range	4 – 5,000 nm
Volume flow		0.9 l/min (others on request)	Time resolution		min. 1 s
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 (others on request)	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	Arbeitsflüssigkeit		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. The MyAtmosphere terms of use apply.			