

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 CEN / TS 16976:2016 (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 for months
- Integrated computer with 7" touch screen
- Intuitive user interface with sophisticated software for data evaluation
- Integrated data logger
- Limitless, integrated network connectivity that supports remote operation and data storage on the internet
- Powerful software package

APPLICATIONS

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

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	Interfaces		USB, Ethernet (LAN), RS-232/485
User interface		Touchscreen, 800 • 480 pixel, 7" (17.78 cm)	Detection efficiency (at low particle size)		D50 = 7 +/- 0,7 nm; D90 < 14 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.