# **ENVI-CPC 200**







The ENVI-CPC 200 is currently the only butanol-based particle counter with high efficiency, which can directly determine the highest concentrations of  $2 \cdot 10^6$  particles in single counting mode in high resolution without dilution. It is part of our modular nanoparticle measurement system. It can be combined arbitrarily with different systems to measure ultrafine particles. Likewise, it is particularly suitable for long-term measurement of combustion or other aerosols with high concentrations of nanoscaled particles. The patented evaporator and condensation module is maintenance-free.

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 for this are already integrated.

### 优势

- The unique, patented way of providing the working fluid for unattended operation for months
- Ambient air monitoring without a dilution system
- 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

## 特点

- · Automatic measurement data storage
- Measurement of the particle size distribution of condensed particles for quality assurance
- Integrated pump
- Integrated computer with 7" touchscreen

### 应用领域

- 气溶胶研究
- 环境测量
- 环境监测网络
- 工作场所安全与职业暴露研究
- 交通排放监测
- 健康研究
- 移动气溶胶研究

#### 技术数据

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测量原理 Condensation of ultrafine particles, optical sensor for determining the number

concentration and size distribution of the condensed particles

测量范围(数量浓度) 2 • 10<sup>6</sup> particles/cm<sup>3</sup> (single count mode)

测量范围(粒径) Approx. 5μm

体积流量 0.9 l/min +/- 2% (optional 0.5 l/min additional) (pressure loss isotheme capil-

lary)

Time resolution 1s - 60s

接口 USB, Ethernet (LAN), weather station/butanol level sensor, RS-232, T/rH sen-

sor

User interface Touchscreen, 800 • 480 pixel, 7" (17.78 cm)

Protocols UDP, UIDEP, B/H, MODBUS TCP/RTU, ASCII TCP/Seriell

Data logger storage Approx. 6 GB data storage (2 years)

Detection efficiency (at low parti-

 $\text{D50} = 10 \pm 1 \text{ nm}$  (others on request); D90 < 20 nm , D95 @ 40 nm  $\pm$  10 nm, D90

@ 1000 nm ± 100 nm

Data acquisition Digital, 20 MHz processor, 256 raw data channels

Light source Long term stable LED

外壳 Tabletop device

电源 115 – 230 V, 50/60 Hz

Power consumption Average power consumption: 40 W

Installation conditions Operating temperature: +10 - +30 °C, operating humidity: < 95% (non-

condensing)

Accuracy +/- 2% (according to calibration certificate)

Response time  $t_{90} < 3 s$ 

Working fluid n-Butanol (>99.5%)

Dimensions 330 • 380 • 240 mm (H • W • D)

重量 Approx. 10 kg

Resolution Min. 1s

Data Management Prepared for connection to the Palas Cloud MyAtmosphere ("MyAtmosphere

ready")

## 标准和证书

EN 16976:2024-09, ISO 27891:2015

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