UF-CPC 200

The UF-CPC 200 is a butanol-based nanoparticle counter with high efficiency. It measures the number concentrations of ultrafine particles (UFP) in aerosols. Model 200 is designed for concentrations up to $2 \cdot 10^6$ particles/cm^3. This makes it especially suitable for low dilution measurement of high aerosol concentrations from particle generators, exhaust gas, or ambient air of exposed and heavily polluted areas. In nephelometer mode, measurements up to $2 \cdot 10^7$ particles/cm^3 are possible. The counter can be easily combined with the Palas size classifiers and thus directly allows the measurement of highly concentrated and size-selected aerosols, e.g., for efficiency measurement of HEPA filter media in test stands.

The patented evaporator and condensation module is maintenance-free. This allows continuous operating times of up to one year.

Benefits

- Intuitive user interface with sophisticated software for data analysis
- Unlimited network compatibility that supports remote control and data storage on the Internet
- Visualization of all operating and measurement data
- Integrated interface for process control applications
- Lower detection efficiency D50 adjustable to 10 nm (others on request)

Applications

- Aerosol research
- Testing of filters and air purifiers
- Environmental measurements
- Occupational exposure and workplace safety studies
- Inhalation and health effects studies
- Process monitoring
- Printer emission studies

Features

- 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)	2 • 10^6 particles/cm^3 (single count mode)
Measurement range (size)	4 – 5,000 nm
Volume flow	0.9 L/min (butanol) 0.3–1 L/min (adjustable for research applications) (others on request)
Time resolution	Min. 1s
User interface	Touchscreen, 800 • 480 pixel, 7″ (17.78 cm)
Data logger storage	4 GB
Software	PDAnalyze
Detection efficiency (at low particle size)	D50 = 4.5 nm (others on request)
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Light source	LED
Installation conditions	+10 – +30 °C (others on request)
Accuracy	5 % (single count mode)
Response time	$t_{90} < 2.8$ s, $t_{90-10} < 2.0$ s
Working fluid	1-Butanol
Dimensions	290 • 240 • 350 mm (H • W • D)

NORMS AND CERTIFICATES

ISO 27891:2015