

AIRMODUS

New compact **A30 CPC!**

The A30 is a robust and reliable tool for aerosol particle measurements in all applications where precision and sensitivity are of essence. The A30 is a compact particle counter, with a user-friendly design that can detect all aerosol particles larger than 10 nm (by request A30 can be delivered with a cut-off between 5 – 23 nm).



Design

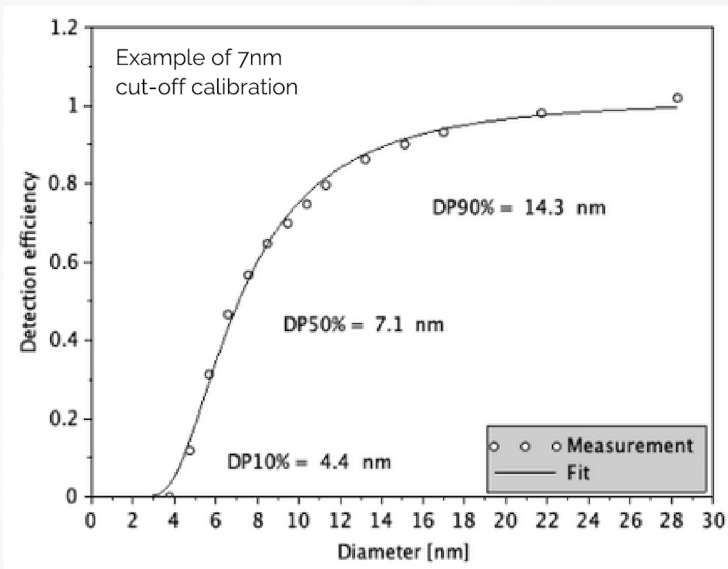
✓ **A compact and versatile particle counter**

Range

✓ **Up to 500 000 #/cm³ in single counting mode**

Benefits

- ✓ **Precise particle counting**
- ✓ **No sample dilution**
- ✓ **Easy to use touchscreen**
- ✓ **Advanced signal diagnostics**
- ✓ **Meets the requirements of EN16976:2024**
- ✓ **New inlet BlockSafe system**
- ✓ **New active water removal system**
- ✓ **dualCPC-compliant**



The A30 can be used both as a stand-alone instrument for measuring the total particle number concentration, as well as the detector in various aerosol measurement systems. It is easy to use and handle. All settings can be quickly adjusted from the touch screen, which also displays the current concentration reading and instrument diagnostics.

Airmodus A30 can be delivered as an OEM version. Ask more sales@airmodus.com!

Particle size range	10nm – 2.5 µm (Dp50% on request 5 - 23 nm)
Concentration range	0 – 500 000 #/cm ³ with single counting mode
Aerosol inlet flow	Nominal flow 1 lpm. Bypass flow of 0.8 lpm controlled with a critical orifice. Can be measured externally using a low pressure drop flow meter.
Aerosol sample flow	Nominal flow 0.211 lpm, controlled with a critical orifice. Can be measured externally using a low pressure drop flow meter
Response time	t ₉₅ < 1 s
False counts	<0.001 #/cm ³
Working fluid	n-Butanol (>99,5%)
Operating temperatures	Saturator: 39°C, Condenser 15°C (at Dp50% = 10nm cut-off)
Sample conditions	Pressure: 75 to 105 kPa, Relative humidity: 0 to 95% non-condensing (preferably <40%)**
Environmental conditions	Temperature: 15°C to 35°C Pressure: 75 to 105 kPa Relative humidity: 0 to 95% non-condensing
Communication	Analog out: BNC connector, 0 to 10 V, user-selectable function output (linear concentration, also DMA voltage control) Pulse out: BNC connector Serial: RS-232 Ethernet: RJ45 USB: type B connector All communication based on ASCII character-encoding scheme. Optional: UIDEP (JSON over http) can be used to communicate with the A30 CPC Optional: Possibility for integrated memory (SD card) for collecting offline data
Fittings	External Vacuum: One touch fitting for 6 mm tubing Inlet: 6mm stainless steel tube
Software	Airmodus MultiLogger software for online data acquisition (for Microsoft Windows, 7 or newer)
External vacuum	100 - 400 mbar pressure at NTP (or <40% of inlet pressure) required
Power requirements	Instrument uses an external power adaptor (provided with the instrument) Power adaptor input: 100 - 240 VAC 50/60 Hz, max. 100 W Steady state consumption: 40 W Power adaptor output: 12VDC 11.5 A
Dimensions and weight	190x170x250 (height x width x depth in mm) 4.9 kg
Shipping conditions	Temperature: 0 - 40°C Relative humidity: <95% non-condensing The instrument should be shipped in upright position and should be protected against tremor and blows.

*) Cut-off size in mobility equivalent diameter. See calibration certificate. On request the cut-off can be calibrated to be in the range 5 – 23 nm.
Note: When delivered as part of an A12 nCNC system, the A30 CPC is delivered with a cut-off of about 20 nm.

**) With high relative humidity, an aerosol drier should be used to prevent excess water condensation inside the instrument. A30 CPC has a water removal feature to prevent the condensation inside the system.

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