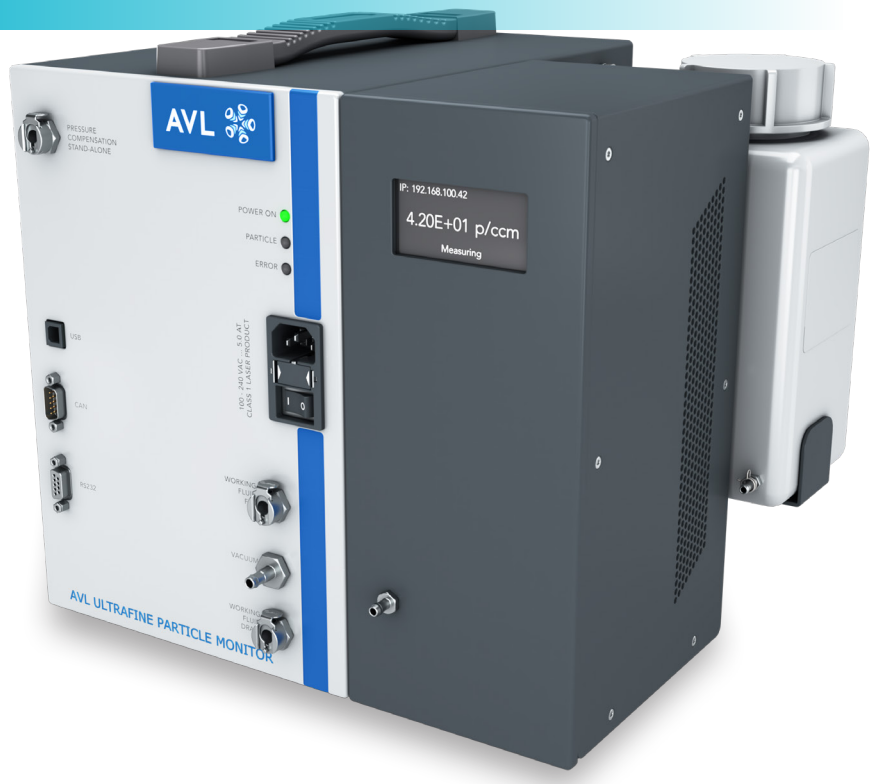


AVL UltraFine Particle Monitor™

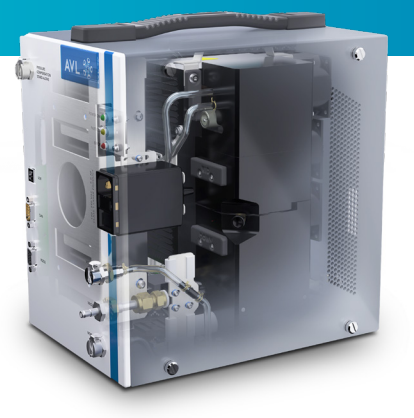
Reliability in Particle Measurement

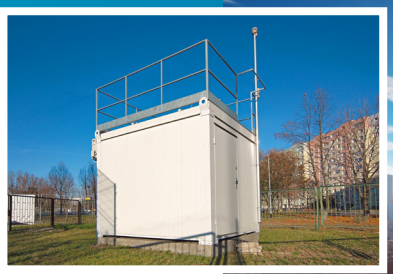
THE CHALLENGE

Air pollution is a pressing issue worldwide as recently confirmed by the WHO guidance document released in 2021. The invisible yet significant contributors to this problem are ultrafine particles, which substantially affect air quality. To combat this, global air quality guidelines recommend the expansion of existing monitoring networks with ultrafine particle measurement technology. Understanding and dealing with these particles and their corresponding sources is a significant challenge due to their microscopic size and the complexity of atmospheric conditions. Robust and accurate measurement tools are crucial to tackling this challenge.

THE AVL SOLUTION

Developed based on decades of experience in particle emission measurement, the AVL UltraFine Particle Monitor™ enables continuous measurement of ultrafine particle concentrations, utilizing the condensation particlecounting method. It features automatic reboot as well as automated drift detection, is fully compliant with the EN 16976 regulation and is ACTRIS compatible. This technology is invaluable to environmental regulatory agencies and research institutions, who need reliable and precise data to implement effective solutions and propel impactful research forward. By accurately measuring and monitoring ultrafine particles, the AVL UltraFine Particle Monitor supports information-based decision-making processes and the definition of pollution reduction strategies.





100% AVL TECHNOLOGY

Our particle counter is designed and built entirely using AVL's proprietary technology. 15+ years experience in particle counting technology ensures high performance, reliability, and quality confirmed by 1000+ installed instruments globally.

ROBUST OPTICAL COMPONENTS

Our particle counter was built to withstand even the harshest conditions of the automotive industry. Its robust optical components are optimized for durability and performance, ensuring reliable data even in extreme environments.

STRAIGHTFORWARD SERVICE FUNCTIONALITY

Our user-friendly design makes it easy to operate and maintain the device. This allows you to focus on the results, not the process.

AUTOMATIC RE-BOOT FOR STABLE DATA FLOW

Understanding the importance of continuous and consistent data, our particle counter features an automatic re-boot functionality avoiding data losses caused by power interruptions.

AUTOMATED DRIFT DETECTION FOR STABLE DATA QUALITY

Our automated drift detection technology continuously monitors and corrects for any deviations in measurement, ensuring unmatched stability and precision over time.

AVL ULTRAFINE PARTICLE MONITOR™

Counting efficiencies	d_{50} d_{90}	10 ± 1 nm 15 nm
Measurement range	0 ... 100.000 #/cm³	
Measurement accuracy	± 5 %	
Complied standards	EN 16976	
Compatibilities	ACTRIS Guidelines	
Response time (T_{90})	≤ 1 s	
Response time (T_{95})	≤ 3 s	
Aerosol flow rate	ca. 960 cm³/min ± 5 %	
Aerosol inlet pressure range	-50 ... 150 mbar rel.	
Storage temperature	-20 ... 45 °C	
Operating temperature	5 ... 35 °C	

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