U-SMPS 2050/2100/2200



U-SMPS (Universal Scanning Mobility Particle Sizers) have been successfully used worldwide for many years for the precise selection of particle size with simultaneous measurement of the particle concentration of airborne particles in the sub-micron range. Depending on the combination of classifying column (DMA), control unit (DEMC), and particle counter, they cover ranges from a few nanometers to several micrometers. Different combinations are possible depending on the application and customer requirements.

Palas U-SMPS System can be operated directly with max. two different counters and also accepts third-party products of well-known manufacturers for direct comparison.

Benefits

- Particle size distributions from 4 nm to 1.2 μm
- Continuous and fast-scanning principle of measurement
- High resolution in up to 128 size classes/decade
- Suitable for concentrations of up to10^8 particles/cm^3
- Universally connects to DMAs and nanoparticle counters from other manufacturers
- Graphic display of measurement values
- Intuitive operation using 7″ touchscreen and GUI
- Integrated data logger
- Supports multiple interfaces and remote access
- Low maintenance

* Please contact Palas® for further details.

Applications

- Filter test
- Aerosol research
- Environmental and climatic studies
- Inhalation experiments
- Interior and workplace measurements

Model Variations



U-SMPS 2050 X/2100 X/2200 X

Version for various applications of 4 – 1,200 nm with integrated X-ray ionization

https://www.palas.de/en/product/usmps2050x2100x

DATASHEET

Measurement range (number C_N)	0 – 10^8 particles/cm^3
Measurement range (size)	4 – 1,200 nm
Volume flow	0.5 – 3 l/min
Volume flow (sheath air)	2.5 – 14 l/min (others on request)
Size channels	Max. 256 (128/decade)
Interfaces	USB, Ethernet (LAN), AUX, RS-232 (CPC only)
User interface	Touchscreen, 800 • 480 pixel, 7″ (17.78 cm)
Data logger storage	4 GB
Software	PDAnalyze
Power supply	90 – 264 V, 50/60 Hz
Installation conditions	+10 – +30 °C (others on request)
Adjustment range (voltage)	1 – 10,000 V(UP and DOWN scan possible)
Data Management	Prepared for connection to the Palas Cloud MyAtmosphere (“MyAtmosphere-ready”); Internet access and separate registration required. The MyAtmosphere terms of use apply.

NORMS AND CERTIFICATES

ISO 15900:2010, ISO 27891:2015, CEN/TS 17434:2020