

# U-SMPS 1050/1100/1200



Palas® 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. They make an essential contribution to research/development as a measuring instrument for determining the efficiency of filter media and elements and in the environmental field for determining the concentration and size of ultrafine particles.

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.

The maximum possible resolution is 128 channels/decade. Combined with an optical particle counter, the upper limit can be extended to 40  $\mu\text{m}$  (U-Range System: U-SMPS System + Fidas® System or Promo® System).

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 440 nm
- Continuous and fast-scanning principle of measurement
- High resolution in up to 64 size classes / decade
- Suitable for concentrations of up to  $10^8$  particles/ $\text{cm}^3$
- 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
- Reliable function
- Reduces your operating expenses

\* 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 1050 X / 1100 X / 1200 X

Universal scanning mobility particle sizer for various applications of 4 – 440 nm with integrated X-ray ionization

<https://www.palas.de/product/usmps1050x1100x1200x>

## DATASHEET

Measurement range (number $C_N$ )	0 – 10 <sup>8</sup> particles/cm <sup>3</sup>	Measurement range (size)	4 – 440 nm
Volume flow (sheath air)	2.5 – 14 l/min	Size channels	Max. 256 (128/decade)
User interface	Touchscreen, 800 • 480 pixel, 7" (17.78 cm)	Data logger storage	4 GB
Software	PDAnalyze	Power supply	115 – 230 V, 50/60 Hz
Installation conditions	+10 – +30 °C (others on demand)	Adjustment range (voltage)	1 – 10,000 V
Data Management	Prepared for connection to the Palas®Cloud MyAtmosphere ("MyAtmosphere-ready"); internet access and separate registration required. MyAtmosphere terms and conditions of use apply.		