

# U-SMPS 1700



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 2 to 400 nm
- Continuous and fast-scanning principle of measurement
- High resolution in up to 128 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

## APPLICATIONS

- Filter test
- Aerosol research
- Inhalation experiments
- Workplace measurements

## MODEL VARIATIONS



### U-SMPS 1700 X

Universal scanning mobility particle sizer for high concentrations of 4 – 600 nm with integrated X-ray ionization

<https://www.palas.de/product/usmps1700x>

## DATASHEET

Measurement (number $C_N$ )	range	$10^5 - 10^8$ Partikel/cm <sup>3</sup>	Measurement (size)	range	2 – 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	Installation conditions		+5 – +40 °C (andere auf Anfrage)
Adjustment (voltage)	range	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.