



Powerful scattered-light aerosol spectrometer system for particle measurement from 120 nm

## BENEFITS

- Measuring range of 120 nm to 40  $\mu\text{m}$  (4 measuring ranges selectable in one device)
- Up to four measuring ranges in only one device:
  - 0.12  $\mu\text{m}$  – 3.5  $\mu\text{m}$  (additionally in welas<sup>®</sup> 1000 and Promo<sup>®</sup> 1000)
  - 0.2  $\mu\text{m}$  – 10  $\mu\text{m}$
  - 0.3  $\mu\text{m}$  – 17  $\mu\text{m}$
  - 0.6  $\mu\text{m}$  – 40  $\mu\text{m}$
- Up to 128 size channels per measuring range
- Concentration range from  $< 1$  particle/ $\text{cm}^3$  to  $5 \cdot 10^5$  particles/ $\text{cm}^3$
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency rate starting at 0.12  $\mu\text{m}$
  
- High temporal resolution down to 10 ms
- PDAnalyze analysis software
- Calibration, cleaning and lamp replacement can all be performed independently by the customer
- External control by RS 232 or Ethernet
- Optional: Software PDCControl for operation as welas<sup>®</sup> digital available
- Simple operation
- Low maintenance
- Reliable function

## APPLICATIONS

- Determination of the separation efficiency of car interior filters, engine air filters, room air filters, compressed air filters, vacuum cleaner filters, cleanable filters, electrostatic precipitators, oil separators, cooling lubricant separators, wet scrubbers, cyclones and other separators
- Isothermal and isobaric particle size and quantitative determination, for instance in the automobile, chemical, pharmaceutical and food industries
- Analysis of fast, transient processes
- Inspection of smoke detectors
- Particle formation for cloud formation

## MODEL VARIATIONS

model available in additional variations  
... more variations available

## DATASHEET

Measuring principle	Optical light-scattering
Measurement range (number $C_N$ )	$< 5 \cdot 10^5$ particles/cm <sup>3</sup>
Size channels	Max. 128 (64/decade)
Measurement range (size)	0.12 – 3.5 $\mu\text{m}$ , 0.2 – 10 $\mu\text{m}$ , 0.3 – 17 $\mu\text{m}$ , 0.6 – 40 $\mu\text{m}$
Volume flow	5 l/min, 1.6 l/min
Time resolution	up to 1 s
Thermodynamic conditions	+10 – +40 °C, -100 – 50 mbar
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Light source	Xenon Hochdrucklampe 75 W
User interface	Touchscreen, 800 • 480 pixel, 7" (17.78 cm)
Housing	Table housing, optional: with mounting brackets for rack-mounting
Weight	Control unit: approx. 8 kg, sensor: approx. 18 kg
Operating system	Windows embedded
Data logger storage	4 GB Compact Flash
Software	PDControl, FTControl

weitere Parameter auf der Webseite ...



Mehr Informationen:  
<https://www.palas.de/product/promo1000>