



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

Benefits

- Measuring range of 120 nm to 40 μm (4 measuring ranges selectable in one device)
- Up to four measuring ranges in only one device:
 - 0.12 μm – 3.5 μm (additionally in welas[®] 1000 and Promo[®] 1000)
 - 0.2 μm – 10 μm
 - 0.3 μm – 17 μm
 - 0.6 μm – 40 μm
- Up to 128 size channels per measuring range
- Concentration range from < 1 particle/cm³ to 5 • 10⁵ particles/cm³
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency rate starting at 0.12 μm
- 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 PDControl for operation as welas[®] 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



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

Datasheet

Parameter	Description
Interfaces	USB, Ethernet, RS232/485, Wi-Fi
Measurement range (size)	0,12 µm – 3,5 µm, 0,2 µm – 10 µm, 0,3 µm – 17 µm, 0,6 µm – 40 µm
Size channels	up to 128 (64/decade)
Measuring principle	Optical light-scattering
Measurement range (number C_N)	< 5 • 10 ⁵ particles/cm ³
Time resolution	up to 1 s
Thermodynamic conditions	10 – 40 °C, -100 – 50 mbar
Volume flow	5 l/min, 1.6 l/min
Data acquisition	20 MHz processor, 256 raw data channels, digital
Light source	
User interface	Xenon high pressure lamp 75 W Touch screen, 800 • 480 pixels, 7" (17.78 cm)
Power supply	115 – 230 V, 50 – 60 Hz
Housing	
Dimensions	Table housing, optionally with mounting brackets for rack-mounting
Weight	185 • 450 • 315 mm (H • W • D) (19")
Operating system	approx. 8 kg (control unit), 18 kg (sensor) Windows embedded
Data logger storage	
Software	4 GB Compact Flash PDControl, FTControl
Installation conditions	+5 – +40 °C (control unit)

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