

WELAS[®] DIGITAL 3000



Aerosol spectrometer with two aerosol sensors, highest particle size resolution, measuring range from 200 nm to 100 μm for quasi simultaneously measurements

BENEFITS

- Measuring range of 0.2 to 100 μm (4 measuring ranges selectable in one device)
- Up to four measuring ranges in only one device:
 - 0,2 μm – 10 μm
 - 0,3 μm – 17 μm
 - 0,6 μm – 40 μm
 - 2 μm – 100 μm (additionally for sensors 2300 and 2500)
- Up to 128 size channels per measuring range
- Concentration range of 1 particle/cm³ up to 10⁶ particles/cm³
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency rate starting at 0.2 μm (see Graph 2)
- High temporal resolution down to 10 ms
- Optical fibre technology
- Measurement in potentially explosive environment
- Long service life of the light source of 2000 h
- Extensive PDControl

- Simple operation
- Calibration, cleaning and lamp replacement can all be performed independently by the customer
- Low maintenance

APPLICATIONS

- Abscheidegradbestimmung von KFZ Innenraumfiltern, Motorluftfiltern, Raumluftfiltern, Druckluftfiltern, Staubsaugerfiltern, abreinigbaren Filtern, Elektrofiltern, Ölabscheidern, Kühlschmierstoffabscheidern, Nassabscheidern, Zyklonen und anderen Abscheidern
- Isotherme und isobare Partikelgrößen- und Mengenbestimmung, z. B. in der Automobil-, Chemie-, Pharma- und Lebensmittelindustrie
- Untersuchung schneller, instationärer Prozesse
- Test von Rauchmeldern
- Partikelmessung zur Wolkenbildung

MODEL VARIATIONS



welas[®] digital 3000 H
With heating regulation up to 250 °C for
welas[®] aerosol sensors

<https://www.palas.de/product/welasdigital3000h>

... more variations available

DATASHEET

Measuring principle	Optical light-scattering
Measurement range (number C_N)	$< 1 \cdot 10^6$ particles/cm ³
Measurement range (size)	0.2 – 10 μm , 0.3 – 17 μm , 0.6 – 40 μm , 2 – 100 μm
Size channels	Max. 64/decade
Volume flow	5 l/min
Time resolution	≥ 10 ms
Thermodynamic conditions	+10 – +40 °C, -100 – 50 mbar
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Light source	Xenon arc lamp 35 W
User interface	Laptop
Housing	Table housing, optional: with mounting brackets for rack-mounting
Weight	Control unit: approx. 18 kg, sensor: approx. 2.8 kg
Software	PDCControl
Installation conditions	+5 – +40 °C (control unit)
Interfaces	USB

weitere Parameter auf der Webseite ...



Mehr Informationen:
<https://www.palas.de/product/welasdigital3000>