



With automatic regulation of sampling volume flow by the aerosol sensors welas[®] under overpressure up to 10 bar or in temperatures to 120 °C

Benefits

- Three measuring ranges in only one device:
 - 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 0.2 µm
- High temporal resolution down to 10 ms
- Extensive PDControl and FTControl software
- Strong, powerful external suction pump ASP 1000
- Calibration, cleaning and lamp replacement can all be performed independently by the customer
- Simple operation
- Low maintenance
- Reliable function
- Reduces your operating expenses

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
- Emission measurements
- Immission measurements



<https://www.palas.de/product/welasdigital1000hp>

Datasheet

| Parameter | Description |
|---|--|
| Interfaces | USB |
| Measurement range (size) | 0.2 - 10 µm, 0.3 - 17 µm, 0.6 - 40 µm |
| Size channels | up to 64/decade |
| Measuring principle | Optical light-scattering |
| Measurement range (number C_N) | < 5 • 10 ⁵ particles/cm ³ |
| Time resolution | ≥ 10 ms |
| Thermodynamic conditions | 120°C, 10 bar |
| Volume flow | 5 l/min, 1.6 l/min |
| Data acquisition | 20 MHz processor, 256 raw data channels, digital |
| Light source | Xenon high pressure lamp 75 W |
| User interface | Laptop |
| Power supply | 115 - 230 V, 50 - 60 Hz |
| Housing | Table housing, optionally with mounting brackets for rack-mounting |
| Dimensions | 185 • 450 • 315 mm (H • W • D) (19") |
| Weight | approx. 8 kg (control unit), approx. 18 kg (sensor) |
| Software | PDControl, FTControl |
| Installation conditions | +5 - +40 °C (control unit) |

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