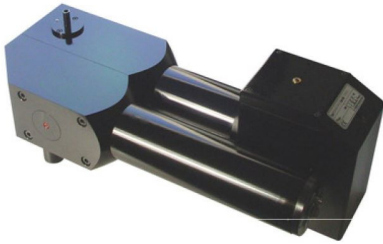


Aerosol sensor welas[®] 1200 HP



Aerosol sensor pressure-resistant up to 10 bar overpressure and heatable up to 120°C

Description

Depending on the composition of the aerosol to be measured, i.e. the carrier gas component and the particle material, pressure changes in the carrier gas can significantly influence the particle size distribution, e.g. due to condensation or evaporation. For this reason, the welas[®] aerosol sensors welas[®] 1100 HP and welas[®] 1200 HP are equipped with a pressure-resistant and heatable cuvette to ensure isobaric and isothermal sampling down to the sensor's measurement volume.



Figure 1: Heatable and pressure-resistant welas[®] cuvette

The cuvettes are made of anodised aluminium (black). If the sensor is used in aggressive and corrosive aerosols, the cuvette can be made of stainless steel or other special materials, such as Hastelloy. Sealed additional disks prevent aerosol from the cuvette from escaping into the surroundings. The additional disks are easy to clean and replace by the operator.

Aerosol sensor welas[®] 1200 HP



Benefits

- Widest measuring range of 200 nm to 40 µm (3 measuring ranges selectable in one device)
- Calibration curves for different refractive indices
- Widest concentration range of 0 particles/cm³ up to 5 • 10⁴ particles/cm³
- Very high and reproducible counting efficiency rate starting at 0.12 µm (see Graph 1)
- 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

Aerosol sensor welas[®] 1200 HP

Datasheet

<i>Parameter</i>	<i>Description</i>
Measurement range (size)	0.2 – 40 µm (3 measurement ranges)
Measurement range (number C_N)	0 – 5 • 10 ⁴ particles/cm ³
Thermodynamic conditions	120°C, 10 bar
Volume flow	1.6 l/min, 5 l/min (others on demand)
Light source	Xenon high pressure lamp 75 W
Power supply	115/230 V, 50/60 Hz
Dimensions	200 • 530 • 530 mm (H • W • D)
Weight	approx. 19 kg
Cooling	Air cooling
Cuvette	Heatable and pressure-resistant

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

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