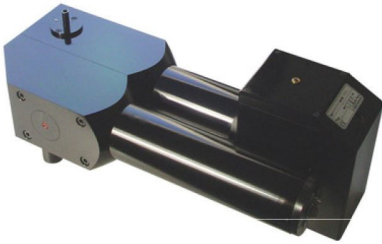


# Aerosol sensor welas<sup>®</sup> 1100 P

Aerosol sensor pressure-resistant up to 10 bar overpressure



## 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 aerosol sensor welas<sup>®</sup> 1100 P and welas<sup>®</sup> 1200 P are equipped with a pressure-tight cuvette to ensure isobaric and isothermal sampling down to the sensor's measurement volume. 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. This also offers an advantage in measuring toxic substances under ambient pressure. The additional disks are easy to clean and replace by the operator.

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## 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/cm<sup>3</sup> up to 5 • 10<sup>5</sup> particles/cm<sup>3</sup>
- 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

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## Datasheet

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