

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 and the particle concentration, e.g. due to condensation or evaporation. For this reason, the aerosol sensors welas<sup>®</sup> 2070 P through to welas<sup>®</sup> 2500 P are equipped with a pressure-resistant cuvette to ensure isobaric sampling down to the sensor's measurement volume.



Figure 1: Pressure-resistant welas<sup>®</sup> cuvette The cuvettes are made of eloxed aluminium (black) by default. 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 even offers an advantage to the measuring of toxic substances under ambient pressure. The additional disks are easy to clean and replace by the operator.

## Benefits

- Die Sensoren sind einfach auswechselbar
- Weltkleinste und robusteste Sensoren in der Serie 2000
- Sehr gute Übereinstimmung aller Sensoren bezüglich Partikelgröße und Partikelkonzentration (siehe Diagramm 1)
- Minimierung von Partikelverlusten in langen Probenahmeleitungen durch einfache Installation des Sensors direkt am Probenahmeort
- Sensoren für In-Situ Messungen
- Messung in explosionsgefährdeter Umgebung in der Serie 2000 (ohne Heizung)
- Einfach zu reinigen
- Einfache Bedienung
- Zuverlässige Funktion
- Wartungsarm
- Senkt Ihre Betriebskosten

# Aerosol sensor welas<sup>®</sup> 2300 P

## Datasheet

<i>Parameter</i>	<i>Description</i>
<b>Measurement range (size)</b>	0.2 – 105 µm (4 measurement ranges)
<b>Measurement range (number C<sub>N</sub>)</b>	0 – 4 • 10 <sup>4</sup> particles/cm <sup>3</sup>
<b>Thermodynamic conditions</b>	+10 – +40°C, 10 bar
<b>Volume flow</b>	5 l/min (others on demand)
<b>Light source</b>	Xenon arc lamp 35 W
<b>Dimensions</b>	50 • 250 • 100 mm (H • W • D)
<b>Weight</b>	approx. 2.8 kg
<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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