

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 or temperature changes in the carrier gas can significantly influence the particle size distribution, e.g. due to condensation or evaporation. For this reason, the aerosol sensors welas[®] 2070 HP through to welas[®] 2500 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[®] 2070 HP



Benefits

Aerosol sensor welas[®] 2070 HP



Datasheet

<i>Parameter</i>	<i>Description</i>
Measurement range (size)	0.2 – 40 µm (3 measurement ranges)
Measurement range (number C_N)	0 – 10 ⁶ particles/cm ³
Thermodynamic conditions	250°C, 10 bar
Volume flow	5 l/min (others on demand)
Light source	Xenon arc lamp 35 W
Dimensions	50 • 250 • 100 mm (H • W • D)
Weight	approx. 2,8 kg
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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