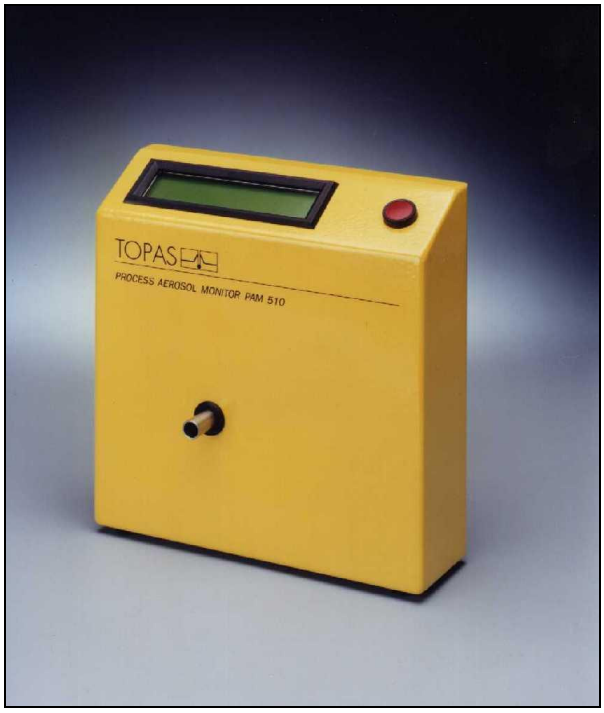
TOPAS®

Process Aerosol Monitor
Series PAM



Process Aerosol Monitor Series PAM

Applications

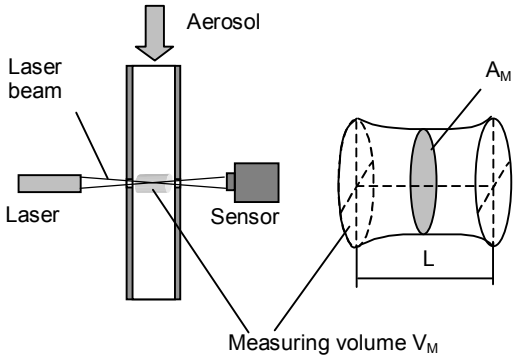
- Measurement of highly concentrated aerosols
- Aerosol generator monitoring

Principle

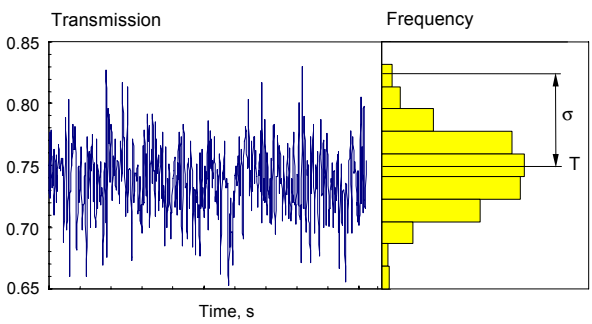
Particles of a highly concentrated aerosol streaming through a measuring cell where a light beam is crossed, cause light extinction.
By measuring of average transmission and their fluctuation, the particle number concentration can be calculated independendly of the refractive index of the aerosol material to be analysed.
With the known refractive index the calculation of an average particle size can be performed simultaneously.

Features

- Highly innovative instrument for online measurements of aerosols
- Simultaneous determination of particle size as well as particle number concentration
- Particle concentration is determined independendly of the refractive index (extinction coefficient)
- Wide measuring range
- Serial interface to computer available



Optical Arrangement of the PAM 510



Analog Output Caused by Single Particles
(σ : Standard Deviation, T : Mean)

Specifications

Aerosol Generator Monitoring

The Topas Condensation Aerosol Generator Series SLG produces monodisperse aerosols. Both particle size and particle concentration to be generated can be quickly adjusted. The Process Aerosol Monitor series PAM was developed for realtime measurement of particle size as well as particle concentration. The instrument can directly be connected to the outlet in front of the aerosol generator series SLG (see figure below). This equipment enables an excellent control of the particle size and particle concentration. The system is well suitable for instrument calibration and aerosol research.

Monitoring of Monodisperse Aerosols Produced by the Condensation Aerosol Generator SLG 270

Specifications

Principle	Light extinction measuring setup with transmission and fluctuation analysis (online measurement)
Particle size range	0.5...10 µm
Particle concentration range	10^4...10^7 Particles/cm^3
Power supply	12 V/DC, 200 mA (via AC adapter)
Light source	3 mW, λ=780 nm laser diode
Microprocessor	TMPZ84C015 (Toshiba)
Sample flowrate	10 l/h...500 l/h
Sheath air flowrate	12 l/h
Counter pressure	max. 3 kPa (30 mbar)
Size (H x L x W)	200 x 235 x 60 mm
Weight	2.4 kg

Option

The special model PAM 510/S enables the data transfer to a computer via a standard RS 232 interface. Data can be monitored by this way.

For more information please visit our website at www.topas-gmbh.de.

Specifications are subject to change without notice.

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