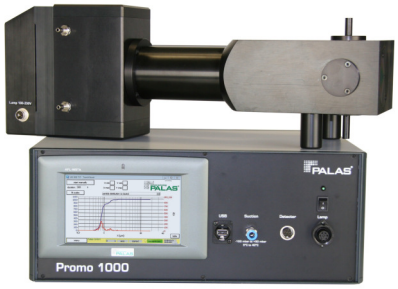
Promo® 1000 P



With automatic regulation of sampling volume flow by the aerosol sensors welas® under overpressure up to 10 bar

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. this reason, the welas® aerosol sensors welas® 1100 P and welas® 1200 P are equipped with a pressure-tight cuvette to ensure isobaric and isothermal sampling into the sensor's measurement volume.
Promo® is usually calibrated for the operating volume flow. As the operating volume flow changes with pressure, it is advantageous for the user if automatic volume flow regulation for the sampling volume flow is provided for in the device.
the Promo® 1000 P the pressure of the carrier gas is measured and the required operating volume flow is automatically set to 5 l/min.
:

- Mass flow controller for volume flow regulation
- Absolute pressure capsule
- Filter unit

Promo® 1000 P

Benefits

- Messbereich von 200 nm bis 40 µm (3 Messbereiche in einem Gerät wählbar)
- Bis zu drei Messbereiche in einem Gerät:
  - 0,2 µm – 10 µm
  - 0,3 µm – 17 µm
  - 0,6 µm – 40 µm
- Größenkanäle bis zu 128 pro Messbereich
- Konzentrationsbereich von < 1 Partikel/cm^3 bis 5 • 10^5 Partikel/cm^3
- Kalibrierkurven für unterschiedliche Brechungsindizes
- Sehr hoher und reproduzierbarer Zählwirkungsgrad schon ab 0,2 µm
- Hohe zeitliche Auflösung von bis zu 10 ms
- Analyse Software PDAnalyze
- Kalibrierung, Reinigung und Lampenwechsel können vom Kunden eigenständig durchgeführt werden
- Externe Ansteuerung über RS 232 oder Ethernet
- Optional: Software PDControl zum Betrieb als welas® digital erhältlich
- Einfache Bedienung
- Wartungsarm
- Zuverlässige Funktion
- Senkt Ihre Betriebskosten

Promo® 1000 P

Datasheet

Parameter	*Description*
Interfaces	USB, Ethernet, RS232/485, Wi-Fi
Measurement range (size)	0.2 – 10 µm, 0.3 – 17 µm, 0.6 – 40 µm
Size channels	up to 128 (64/decade)
Measuring principle	Optical light-scattering
Measurement range (number C_N)	< 5 • 10^5 particles/cm^3
Time resolution	up to 1 s
Thermodynamic conditions	10 – 40 °C, -100 – 50 mbar
Volume flow	5 l/min, 1.6 l/min
Data acquisition	20 MHz processor, 256 raw data channels, digital
Light source	Xenon high pressure lamp 75 W
User interface	Touch screen, 800 • 480 pixels, 7" (17.78 cm)
Power supply	115 – 230 V, 50 – 60 Hz
Housing	Table housing, optionally with mounting brackets for rack-mounting
Dimensions	185 • 450 • 315 mm (H • W • D) (19")
Weight	approx. 8 kg (control unit), 18 kg (sensor)
Operating system	Windows embedded
Data logger storage	4 GB Compact Flash
Software	PDControl, FTControl
Installation conditions	+5 – +40 °C (control unit)

Promo® 1000 P

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

Palas GmbH
Partikel- und Lasermesstechnik
Greschbachstrasse 3 b
76229 Karlsruhe
Germany

Managing Partner:
Dr.-Ing. Maximilian Weiß
Commercial Register:
register court: Mannheim
company registration number: HRB 103813
USt-Id: DE143585902

Contact: E-Mail: mail@palas.de Internet: www.palas.de Tel: +49 (0)721 96213-0 Fax: +49 (0)721 96213-33