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Promo® 1000 H

With heating regulation up to 120 °C for welas® aerosol sensors

Description

Depending on the composition of the aerosol to be measured, i.e. the carrier gas component and the particle material, pressure and temperature 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 HP and welas® 1200 HP are equipped with a heatable and, as required, pressure-tight cuvette to ensure isobaric and isothermal sampling into the sensor's measurement volume.
Promo® 1000 H model variant also offers heating regulation for temperatures up to 120 °C for the welas® 1100 HP and welas® 1200 HP aerosol sensors with heatable cuvette.
Promo® is usually calibrated for the operating volume flow. In the Promo® 1000 H version, regulation of the sampling volume flow is performed independently by the customer taking the temperature and pressure into consideration.

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Benefits

- Measuring range of 200 nm to 40 µm (3 measuring ranges selectable in one device)
- Up to three measuring ranges in only one device:
  - 0.2 µm – 10 µm
  - 0.3 µm – 17 µm
  - 0.6 µm – 40 µm
- Up to 128 size channels per measuring range
- Concentration range from < 1 particle/cm^3 to 5 • 10^5 particles/cm^3
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency rate starting at 0.2 µm
- High temporal resolution down to 10 ms
- Analysing software PDAnalyze
- Calibration, cleaning and lamp replacement can all be performed independently by the customer
- External control via RS 232 or Ethernet
- Optional: PDControl software for operation as welas® digital

- Simple operation
- Low maintenance
- Reliable function
- Reduces your operating expenses

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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)

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Applications

- Abscheidegradbestimmung von KFZ Innenraumfiltern, Motorluftfiltern, Raumluftfiltern, Druckluftfiltern, Staubsaugerfiltern, abreinigbaren Filtern, Elektrofiltern, Ölabscheidern, Kühlschmierstoffabscheidern, Nassabscheidern, Zyklonen und anderen Abscheidern
- Isotherme und isobare Partikelgrößen- und Mengenbestimmung, z. B. in der Automobil-, Chemie-, Pharma- und Lebensmittelindustrie
- Untersuchung schneller, instationärer Prozesse
- Partikelmessung zur Wolkenbildung
- Emissionsmessungen

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