PROMO® 1000 P

The aerosol sensor welas® 1100 P and the aerosol sensor welas® 1200 P are are equipped with a pressure-tight cuvette to ensure isobaric and isothermal sampling into the sensor's measurement volume.The Promo®system 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.

In 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.

工作原理

Includes:

- Mass flow controller for volume flow regulation
- Absolute pressure capsule
- Filter unit to protect the flow rate control

优势

- 测量范围为120 nm 至40 μm （在一台设备中可选择4 个测量范围）
- 仅一台设备中可配置多达4 个测量范围：
  - 0.12 μm – 3.5 μm（仅限于welas® 1000 和Promo® 1000）
  - 0.2 μm – 10 μm
  - 0.3 μm – 17 μm
  - 0.6 μm – 40 μm
- 每个测量范围支持多达128 个粒径通道
- 浓度范围从< 1 颗粒/cm^3 至5 • 10^5 颗粒/cm^3
- 不同折射率的校准曲线
- 从0.12 μm 开始具有很高且可重现的计数效率

- 高时间分辨率可低至10 ms
- PDAnalyze 分析软件
- 客户可以独立进行校准、清洁和更换灯泡
- 外部控制可通过RS 232 或以太网实现
- 可选：PDControl 软件支持welas® digital 运行
- 操作简便
- 维护成本低
- 功能可靠
- 降低运营成本

技术数据

测量原理	Optical light-scattering
测量范围(数量浓度)	< 5 • 10^5 particles/cm^3
测量范围(粒径)	0.2 – 10 µm, 0.3 – 17 µm, 0.6 – 40 µm
体积流量	5 l/min, 1.6 l/min
Size channels	Max. 128 (64/decade)
Time resolution	⩽1 s
接口	USB, Ethernet (LAN), Wi-Fi, RS-232/485
User interface	Touchscreen, 800 • 480 pixel, 7″ (17.78 cm)
Data logger storage	4 GB Compact Flash
软件	PDControl, FTControl, PDAnalyze
Thermodynamic conditions	+10 – +40 °C, -100 – 50 mbar
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Light source	Xenon high pressure lamp 75 W
外壳	Table housing, optional: with mounting brackets for rack-mounting
Support options	Direct remote access, Palas webserver service
Operating system	Windows embedded
电源	115 – 230 V, 50/60 Hz
Power consumption	100 W
Installation conditions	+5 – +40 °C (control unit)
Dimensions	185 • 450 • 315 mm (H • W • D) (19″)
重量	Control unit: approx. 8 kg, sensor: approx. 18 kg

应用领域

- 测定汽车内饰过滤器、发动机空气过滤器、室内空气过滤器、压缩空气过滤器、真空吸尘器过滤器、可清洗过滤器、静电除尘器、油分离器、冷却润滑油分离器、湿式洗涤器、旋风分离器及其他分离器的分离效率
- 等温等压条件下颗粒粒径与定量测定（适用于汽车、化工、制药及食品行业）
- 快速瞬态过程分析
- 烟雾探测器检测
- 云形成颗粒生成
- 排放测量
- 环境污染物浓度测量

Mehr Informationen:
https://www.palas.de/product/promo1000p