PROMO® 3000 HP

The welas® aerosol sensors welas® 2070 HP, 2100 HP, 2300 HP, and welas® 2500 HP are equipped with a cuvette heatable up to 120 °C and pressure-tight up to 10 barg 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 and temperature, 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® 3000 HP, the pressure and temperature of the carrier gas are 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
- Heating regulator up to 120 °C
- Temperature sensor
- Absolute pressure capsule
- Filter unit to protect the flow rate control

优势

- 测量范围为0.2 至100 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：
  - 0,2 μm – 10 μm
  - 0,3 μm – 17 μm
  - 0,6 μm – 40 μm
  - 2 μm – 100 μm（仅限于welas® 2300 和welas® 2500 传感器）
- 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10^6 颗粒/cm^3
- 不同折射率的校准曲线
- 从0.2 μm 开始具有很高且可重现的计数效率
- 光纤技术
- 操作简便，配有大尺寸触摸显示屏
- 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
- PDAanalyze 分析软件
- 可选：PDControl 软件支持welas® digital 运行

- 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)	$< 1 \cdot 10^6$ particles/cm^3
测量范围(粒径)	0.2 – 10 μm, 0.3 – 17 μm, 0.6 – 40 μm, 2 – 100 μm
体积流量	5 l/min regulated by mass flow
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 – +120 °C, 2 – 10 bar_g
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Light source	Xenon arc lamp 35 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. 2.8 kg

应用领域

- 设施的排放监测
- 研磨与分级工艺控制
- 食品、制药及化工行业生产过程监测
- 完整过滤器、惯性分离器、湿式分离器或静电除尘器的测试

Mehr Informationen:
https://www.palas.de/product/promo3000hp