

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.

优势

- Sehr hohe Größenauflösung
- Konzentrationsbereich von < 1 Partikel/cm³ bis 10⁶ Partikel/cm³
- Kalibrierkurven für unterschiedliche Brechungsindizes
- Sehr hoher und reproduzierbarer Zählwirkungsgrad schon ab 0,2 µm
- Lichtwellenleitertechnik
- Einfache Bedienung durch großes Touchdisplay
- Kalibrierung, Reinigung und Lampenwechsel können vom Kunden eigenständig durchgeführt werden
- Externe Ansteuerung über RS 232 oder Ethernet

应用领域

- Emissionsüberwachung von Anlagen
- Steuerung von Mahl- und Sichtprozessen
- Überwachung von Produktionsprozessen in der Lebensmittel-, Pharma- und Chemieindustrie
- Test von Kompletfiltern, Trägheits- und Nassabscheidern oder Elektrofiltern

特点

- Up to four measuring ranges in one device: 0.2 µm – 10 µm | 0.3 µm – 17 µm | 0.6 µm – 40 µm | 2 µm – 100 µm
- Up to 128 size channels per measuring range
- Unique calibration curve thanks to white light source with 90° scattered light detection
- Patented T-aperture: No edge zone error, coincidence detection and correction on individual signals
- Selectable sensors for optimized measurement in terms of concentration
- On-site calibration and adjustment (particle size and volume flow)

技术数据

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|--------------------------|---|
| 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 10 IoT (LTSC) |
| 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 |