



Depending on the aerosol composition 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.

For this reason, the **welas[®] aerosol sensors** **welas[®] 2070 H, HP, 2100 H, HP, 2200 H, HP, 2300 H, HP and welas[®] 2500 H, HP¹** are equipped with a heatable and, as required, pressure-tight cuvette to ensure isobaric and isothermal sampling into the sensor's measurement volume.

The Promo[®]2000 H model variant also offers heating regulation for temperatures up to 250 °C for the aerosol sensors with heatable cuvette.

The Promo[®]system is usually calibrated for the operating volume flow. In the Promo[®] 2000 H version, the customer's regulation of the sampling volume flow is performed independently, considering the temperature and pressure.

OPERATION PRINCIPLE

¹welas[®] Aerosolsensoren **welas[®] 2070 H, HP, 2100 H, HP, 2200 H, HP, 2300 H, HP und welas[®] 2500 H, HP:**
<https://www.palasz.de/en//en/product/aerosolsensorswelas2000>

BENEFITS

- Measuring range of 0.2 to 100 μm (4 measuring ranges selectable in one device)
- Up to four measuring ranges in only one device:
 - 0,2 μm – 10 μm
 - 0,3 μm – 17 μm
 - 0,6 μm – 40 μm
 - 2 μm – 100 μm (additionally for sensors 2300 and 2500)
- Up to 128 size channels per measuring range
- Concentration range of 1 particle/ cm^3 to 10^6 particles/ cm^3
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency rate starting at 0.2 μm
- Pressure-resistant up to 10 bar (optional)
- Heatable to 250 °C (optional)
- Optical fibre technology
- Simple operation with a large touch display
- Calibration, cleaning and lamp replacement can all be performed independently by the customer
- External control by RS 232 or Ethernet
- With analysis software PDAnalyze
- Optional: Software PDControl for operation as welas® digital available

- Low maintenance
- Reliable function
- Reduces your operating expenses

DATASHEET

| | |
|-----------------------------------|--|
| Measuring principle | Optical light-scattering |
| Measurement range (number C_N) | $< 1 \cdot 10^6$ Partikel/cm ³ |
| Measurement range (size) | 0.2 – 10 μm , 0.3 – 17 μm , 0.6 – 40 μm , 2 – 100 μm |
| Volume flow | 5 l/min |
| Size channels | Max. 128 (64/decade) |
| Interfaces | 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 |
| Software | PDControl, FTControl, PDAnalyze |
| Data acquisition | Digital, 20 MHz processor, 256 raw data channels |
| Light source | Xenon arc lamp 35 W |
| Housing | Table housing, optional: with mounting brackets for rack-mounting |
| Support options | Direct remote access, Palas webserver service |
| Operating system | Windows embedded |
| Power consumption | 100 W |
| Installation conditions | +5 – +40 °C (control unit) |
| Dimensions | 185 • 450 • 315 mm (H • W • D) (19") |
| Weight | Control unit: approx. 8 kg, sensor: approx. 2.8 kg |

APPLICATIONS

- Emission monitoring of installations
- Control of grinding and classification processes
- Monitoring of production processes in the food, pharmaceuticals and chemicals industries
- Testing of complete filters, inertial and wet separators or electrostatic precipitators



Mehr Informationen:
<https://www.palas.de/product/promo2000h>