

PROMO[®] 3000 H



The *welas*[®] aerosol sensors *welas*[®] 2070 P, HP, 2100 P, HP, 2300 P, HP and *welas*[®] 2500 P, HP 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*[®] 3000 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*[®] 3000 H version, the customer's regulation of the sampling volume flow is performed independently, considering the temperature and pressure.

BENEFITS

- Very high size resolution
- Concentration range from < 1 particle/cm³ to 10⁶ particles/cm³
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency starting at 0.2 μm
- Optical fiber technology
- Easy operation thanks to large touch display
- Calibration, cleaning, and lamp replacement can be performed independently by the customer
- External control via RS 232 or Ethernet
- Low maintenance

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

FEATURES

- 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)

DATASHEET

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| Measuring principle | Optical light-scattering |
| Measurement range (number C_N) | $< 1 \cdot 10^6$ particles/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) |
| Time resolution | 1 s |
| 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 |
| Thermodynamic conditions | 250°C, -100 – 50 mbar |
| 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 supply | 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") |
| Weight | Control unit: approx. 8 kg, sensor: approx. 2.8 kg |