

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

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