



The welas<sup>®</sup> aerosol sensors welas<sup>®</sup> 2070 P, HP, 2100 P, HP, 2200 P, HP, 2300 P, HP and welas<sup>®</sup> 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<sup>®</sup> 3000 H model variant also offers heating regulation for temperatures up to 250 °C for the aerosol sensors with heatable cuvette. The Promo<sup>®</sup> system is usually calibrated for the operating volume flow.

In the Promo<sup>®</sup> 3000 H version, the customer's regulation of the sampling volume flow is performed independently, considering the temperature and pressure.

## OPERATION PRINCIPLE

## BENEFITS

- Very high size resolution
- Concentration range from  $< 1 \text{ particle/cm}^3$  to  $10^6 \text{ particles/cm}^3$
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency starting at  $0.2 \mu\text{m}$
- 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

## DATASHEET

Measuring principle	Optical light-scattering
Measurement range (number $C_N$ )	$< 1 \cdot 10^6$ particles/cm <sup>3</sup>
Measurement range (size)	0.2 – 10 $\mu\text{m}$ , 0.3 – 17 $\mu\text{m}$ , 0.6 – 40 $\mu\text{m}$ , 2 – 100 $\mu\text{m}$
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
Gehäuse	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

## 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/en/product/promo3000h>