

PROMO® 3000



The Promo® 3000 is a light-scattering aerosol spectrometer system with two sensors for particle size analysis and concentration determination that can be equipped with all [welas® sensors](https://www.palas.de//product/aerosolsensorswelas2000)¹.

On Promo® 3000, the welas® sensors equipped with different measurement volumes, as required, can be easily connected via fiber optic cables and interchanged as needed. These sensors allow reliable measurement in the concentration range from < 1 particle/cm³ up to 10^6 particles/cm³ and are available for measurement in gases and liquids.

Unique are up to four measuring ranges in only one device:

- $0.2 \mu\text{m} - 10 \mu\text{m}$
- $0.3 \mu\text{m} - 17 \mu\text{m}$
- $0.6 \mu\text{m} - 40 \mu\text{m}$
- $2 \mu\text{m} - 100 \mu\text{m}$ (additionally for sensors 2300 and 2500)

Promo® 3000 is famous for up to 128 size channels per measuring range and a concentration range from < 1 particle/cm³ to 10^6 particles/cm³.

¹welas® sensors: <https://www.palas.de//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
- 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

FEATURES

- Two sensors can be connected to one control unit for raw and clean gas measurement
- Up to four measuring ranges can be selected 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
- Clear calibration curve thanks to white light source with 90° scattered light detection
- Patented T-aperture: No edge zone error, coincidence detection and correction on the individual signal
- Selectable sensors for optimized measurement with regard to concentration
- On-site calibration and adjustment (particle size and volume flow)

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

MODEL VARIATIONS



Promo® 3000 H

Mit Heizungsregelung bis 250 °C für welas® Aerosolsensoren

<https://www.palas.de/product/promo3000h>



Promo® 3000 HP

Version with automatic regulation of sampling volume flow by the aerosol sensors welas® under overpressure up to 10 bar or with heating regulation to 120 °C

<https://www.palas.de/product/promo3000hp>

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	+10 – +40 °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")

additional parameter on our website ...