

# PROMO® 2000



Promo® 2000 is a light-scattering aerosol spectrometer system for particle size analysis and concentration determination that can be equipped with all [welas® sensors](#)<sup>1</sup>.

On Promo® 2000, 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/cm<sup>3</sup> to 10<sup>6</sup> particles/cm<sup>3</sup> in gases.

Unique are 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)

Promo® 2000 is famous for up to 128 size channels per measuring range and a concentration range from < 1 particle/cm<sup>3</sup> to 10<sup>6</sup> particles/cm<sup>3</sup>.

<sup>1</sup>welas® Sensoren: <https://www.palas.de/en//en/product/aerosolsensorswelas2000>

## BENEFITS

- Measuring range of 0.2 to 100  $\mu\text{m}$  (4 measuring ranges selectable in one device)
- 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)
- Up to 128 size channels per measuring range
- Concentration range of 1 particle/cm<sup>3</sup> to 10<sup>6</sup> particles/cm<sup>3</sup>
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency rate starting at 0.2  $\mu\text{m}$
- 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

## 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® 2000 H

With heating regulation up to 250 °C for welas® aerosol sensors

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



### Promo® 2000 HP

With automatic regulation of the sampling flow through the welas® aerosol sensors at an overpressure of 2 to 10 bar or with heating regulation to 120 °C

<https://www.palas.de/product/promo2000hp>

## DATASHEET

Measuring principle	Optical light-scattering	Measurement range (number $C_N$ )	$< 1 \cdot 10^6$ Partikel/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)	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