

# 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<sup>a</sup>](#).

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/cm<sup>3</sup> up to 10<sup>6</sup> particles/cm<sup>3</sup> 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/cm<sup>3</sup> to 10<sup>6</sup> particles/cm<sup>3</sup>.

<sup>a</sup>welas® sensors: <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/ $\text{cm}^3$  to  $10^6$  particles/ $\text{cm}^3$
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency rate starting at 0.2  $\mu\text{m}$
- 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

## 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

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

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



### Promo® 3000 HP

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 $C_N$ )	$< 1 \cdot 10^6$ 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)	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® webservice	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 ...