PROMO® 2000 P

The welas® aerosol sensors welas® 2070 P, 2100 P, 2300 P and welas® 2500 P are equipped with a pressure-tight cuvette to ensure isobaric and isothermal sampling into the sensor's measurement volume.The Promo®system is usually calibrated for the operating volume flow. As the operating volume flow changes with pressure, it is advantageous for the user if automatic volume flow regulation for the sampling volume flow is provided for in the device.

In the Promo® 2000 P , the pressure of the carrier gas is measured, and the required operating volume flow is automatically set to 5 l/min.

BENEFITS

- Very high size resolution
- Concentration range from < 1 particle/cm^3 to 10^6 particles/cm^3
- Calibration curves for different refractive indices
- Very high and reproducible counting efficiency even from 0.2 µm
- Pressure resistant up to 10 bar (optional)
- Heatable up to 250°C (optional)
- Optical fiber technology
- Easy to operate thanks to large touch display
- Calibration, cleaning, and lamp replacement can be carried out independently by the customer
- External control via RS 232 or Ethernet

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: 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° stray light detection
- Patented T-aperture: No edge zone error
- Digital single signal processing: Coincidence detection and correction on the single signal
- Selectable sensors for optimized measurement with regard to concentration
- On-site calibration and adjustment (particle size and volume flow)

https://www.palas.de/en/product/promo2000p

DATASHEET

Measuring principle	Optical light-scattering
Measurement range (number C_N)	$< 1 \bullet 10^6$ 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 regulated by mass flow
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