PROMO® 3000 P

The welas® aerosol sensors welas® 2070 P, 2100 P, 2200 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®3000 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 starting at 0.2 µm
- 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

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° 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)

DATASHEET

Measuring principle	Optical light-scattering	Measurement range (number C_N)	< 1 • 10^6particles/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	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″)

additional parameter on our website …