PROMO® 3000 P

The welas® aerosol sensors welas® 2070 P, 2100 P, 200 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

- Sehr hohe Größenauflösung
- Konzentrationsbereich von < 1 Partikel/cm^3 bis 10^6 Partikel/cm^3
- Kalibrierkurven für unterschiedliche Brechungsindizes
- Sehr hoher und reproduzierbarer Zählwirkungsgrad schon ab 0,2 μm
- Lichtwellenleitertechnik
- Einfache Bedienung durch großes Touchdisplay
- Kalibrierung, Reinigung und Lampenwechsel können vom Kunden eigenständig durchgeführt werden
- Externe Ansteuerung über RS 232 oder Ethernet

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)

APPLICATIONS

- Emissionsüberwachung von Anlagen
- Steuerung von Mahl- und Sichtprozessen
- Überwachung von Produktionsprozessen in der Lebensmittel-, Pharma- und Chemieindustrie
- Test von Komplettfiltern, Trägheits- und Nassabscheidern oder Elektrofiltern

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
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 10 IoT (LTSC)
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″)
Weight	Control unit: approx. 8 kg, sensor: approx. 2.8 kg