



# LS Particle Monitors



The LS series particle counter has been enhanced and is available as more compact and more user friendly ACS series, Air Count System. Of course we are still offering accessory, spares and service for the LS series particle counter.



The LS series optical particle counter covers the size range 0.1-10 µm due to standards ISO 14644-1, VDI 2083, DIN 1946-4, EU-GMP and Fed-209 E. Due to its compact and lightweight construction the LS particle counter is an excellent choice for both stationary and mobile application.

## At a glance

- Size range from 0.1 µm with a maximum of 16 freely selectable particle size channels
- Measuring pursuant to ISO 14644-1, VDI 2083, DIN 1946-4, EU-GMP, Fed-209 E
- Electronically monitored air volume control
- Connections for air velocity, differential pressure and Temp/RH probes
- Easy multilingual menu navigation (German/ English/ French/ Turkish)
- Alphanumeric input
- Speed button for entry of ID numbers
- Made in Germany by KM OptoElektronik GmbH

## Applications

Realize control and supervision of Clean rooms, Laminar flow boxes and safety work benches, Filter units in operating theatres, ambient areas of filling systems in the pharmaceutical industry, Process media as well as efficiency and integrity of filters.

## Handling

User friendly, efficient handling is ensured by the easy, multilingual menu navigation. During the measurement the LCD display shows an overview of the chosen particle size channels as well as time, measuring and rinsing time. The results may be displayed in tabular or histogram form.

## Benefits

Probes for air velocity, differential pressure, temperature and Temp/RH can be connected directly. The system allows to print out all data via thermal printer and/or to store them on a floppy disc. By using RS232/ RS485 interface the control and evaluation via PC is enabled. Furthermore, the ASC offers the feature to network the devices for filter testing stands respective monitoring systems.



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## Optional accessories

- Software PWIN for single application, PMULTI for networking
- Aerosol generator AG250, AG2500
- Dilution system VD100
- Isokinetic probe
- High-Pressure-Diffuser
- Air velocity probe, differential pressure probe, Temp/RH probe
- Remote start/ stop
- Internal 3.5" floppy drive
- Aluminium case
- Wheeled stand
- and much more accessory you can find on our homepage or simply give us a call

## Specifications\*

Features	1) LS 11 C 2) LS 21 C	3) LS 31 C 4) LS 51 C	5) CLS 31 C 6) CLS 51 C
Size Range [µm]	1) 0.1 - 2 2) 0.2 - 5	3) 0.3 - 10 4) 0.5 - 10	5) 0.3 - 10 6) 0.5 - 10
Particle Channels	Standard setting or a maximum of 16 freely selectable particle size channels		
Counting Efficiency per ISO 21501-4	1) 50% at 0.1 µm, 100% at > 0.15 µm 2) 50% at 0.2 µm, 100% at > 0.3 µm	3/ 5) 50% at 0.3 µm, 100% at > 0.45 µm 4/ 6) 50% at 0.5 µm, 100% at > 0.75 µm	
Concentration Limit	150000/ 1 CFM	1 Mio./ 1 CFM	1 Mio./ 1 CFM
Light Source	HeNe-Laser	Laser diode	Laser diode
Optical System	90° scattered light cumulating optics		
Zero Count	Per ISO 21501-4: < 1 count/ 5 min.		
Flow Rate	1 CFM; 28.3 L/ min.		
Flow-Generator	Vacuum pump		
Flow-Control	Electronically monitored		
Calibration	Per ISO 21501-4: Latex-Aerosol		
Sampling Modes	Single measuring with 1 - 9 measurements for each cycle and automatic averaging, or continuous measuring with automatic averaging of 2 - 9 measurements each		
Sampling/ Rinsing Time	1s to 99h, 59min, 59s		
Communication Mode	Standard RS 232 for single application, RS 485 for networking		
Data Storage	50.000 sample records		
Display and Operation	Backlight graphics LCD display, 240 x 128 membrane keyboard with 20 alphanumeric keys		
Languages	German/ English/ French/ Turkish		
Data Content per Record	Date, time, ID number, alphanumeric key, measuring and rinsing time, 16 particle size channels with cumulative particle count		
Software	PWIN for single application, PMULTI for networking		
Printer	Thermal printer 58 mm		
Environmental Sensor Interface	Air velocity (0 - 2 m/s), differential pressure (0 - 50 Pa), Temp/RH (T: 15 - 35 °C, H: 0 - 100 %)		
External Surface	Stainless steel, anodized aluminium optional		
Dimension D x W x H [cm]	45x36x19	28x36x19	30x36x14
Weight [Kg]	12	10	9
Power Supply	230/ 115 VAC, 50/ 60 Hz, max. 400 Watt		
Standards	ISO 14644-1, VDI 2083, DIN 1946-4, GMP, Fed-209 E		
Operating Range	5 - 35 °C, 10 - 80 % RH, noncondensing		
Delivery Contents	Particle counter, isokinetic probe with 3 m antistatic tubing, power supply, manual, certificate		

\* All information is non-binding; specifications are subject to change without notice

