

Particle Counting
Technology For
Almost Every
Application



PAMAS S50

Online Particle Counter



PAMAS S50 and PAMAS S50P

Automatic online particle counters for oil contamination control and condition monitoring

- Automatic digital flow rate control provides accurate measurement results
- Optional analog inputs (4 – 20 mA) provides connection of external sensors, e.g. measurement of water content, viscosity, vibration and temperature, all data transferred together with particle counting results
- Internal pump in S50P provides measurement from pressureless systems
- Measurement range: 1 – 200 µm
- Particle counting in 8 size ranges: > 4, 6, 10, 14, 21, 25, 38, 70 µm_(c)
- Detects also small particle numbers, important in condition monitoring
- Particle number range: 0 - 24.000 particles / ml
- ISO 4406 cleanliness class display: 0/0/0 – 24/23/22
- Pressure range: S50: 0,2 – 20 bar, (option) 5 – 400 bar, S50P: 0 – 7 bar
- Max. viscosity: 1000 cSt (depending on pressure in oil system)
- Data I/O: USB for system configuration
RS-485 for data transfer and remote control
Optional external RS-485 / RS-232 converter
Optional Ethernet network interface
Optional 4 x analog inputs and outputs (4 - 20mA)
Optional 8 x digital inputs and outputs (0-10V)
Optional degassing unit to prevent measurement of airbubbles
- PAMAS POV contamination control software (option)
- Operating voltage: 24 VDC (18 – 36), external mains power supply unit
- Dimensions: S50: 120 x 220 x 120 mm, S50P: 200 x 230 x 180 mm, optional external pressure reducer increases height 10cm
- Weight: approx. 4 kg (S50), 5 kg (S50P)

Manufactured in Germany by PAMAS GmbH

www.pamas.de

Global Power
Local Presence



Save money using a particle counter in condition monitoring of lube and hydraulic oil systems

New PAMAS S50 – a sensitive low cost on-line particle counter for continuous oil contamination control in stationary installation



Save money recognising failures and ensure production

Early detection of abrasion particles from beginning failure in hydraulic and lube oil system provides a chance to prevent breakdown of production and therefore can save lot of money, even 10.000 € per hour in paper manufacturing plants. PAMAS particle counters can do that task.



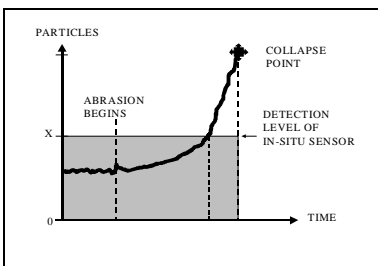
PAMAS S50 - more than just a contamination monitor

PAMAS S50 on-line particle counter measures particle numbers and ISO 4406:1999 cleanliness classes. The measured data can be transferred to computer via interface port. Additionally PAMAS S50 has a display for ISO 4406 cleanliness classes.

ISO4406:	15/13/10
Size μm	Particles / 100 ml
> 4	29497
> 6	7090
> 10	2393
> 14	960
> 21	383
> 25	190
> 38	133
> 70	12

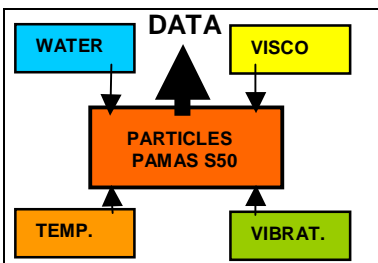
Selective differentiation of particle sizes – more information

PAMAS S50 counts particle numbers over large size range and differentiate particle numbers in 8 size channels:
 > 4, 6, 10, 14, 21, 25, 38 and 70 μm (c) per ISO-11171 size calibration. Particle number distribution in 8 size channels provides detection of big particles and their number; important in case of abrasion failure.



Sensitive detection – more time to react for failures

Due to the volumetric sensor technology PAMAS S50 can measure also a small number of particles, even down to zero, ISO 4406: 0/0/0. Thus, even a small increasing in particle numbers can be noticed by S50 providing early detection of failure and more time to make corrective actions. Many other particle counting sensors operate only in higher particle numbers (in-situ principle) giving less time to react.



Easy connection and valuable data – more value for money

PAMAS S50 on-line particle counter has 4 analog signal inputs (4 - 20mA) providing connection of external sensors, such like water content, vibration, temperature, viscosity, pressure, etc. important condition monitoring data from fluid power system. All the measured data from external sensors, in addition of particle numbers in 8 sizes, can be transferred to computer via one interface in PAMAS S50.



PAMAS – more possibilities in oil contamination control

PAMAS S40 Portable Particle Counter and PAMAS SBSS Bottle Sample Particle Counter together with the PAMAS CMDM Particle Analysis and Trend Monitoring Software fulfil the PAMAS product family in oil contamination control.