PAMAS
Partikelmess- und Analysesysteme

PAMAS S40
Portable particle counting instrument for oil-based liquids

Particle counter for the remote on-site analysis of fluid samples – pressureless sampling and up to 420 bar system pressure testing including the following fluids:

- Hydraulic oils
- Turbine and insulation oils
- Gear oils
- Fuels

The PAMAS S40 Skydrol version can be used to analyse phosphate ester-based hydraulic fluids.

DESIGNED DEVELOPED MADE PAMAS IN GERMANY

REV 04/2025

IN THE WORLD OF PARTICLES PAMAS COUNTS

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Portable particle counting instrument for oil-based liquids

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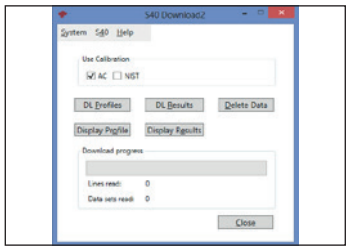
Product features
- Robust & convenient design
- Lightweight only 8 kg
- Customizable measurement analysis settings
- Intuitive operation via touch screen
- Automatic sample flow and volume control by wear resistant ceramic piston pump
- Measurement from pressureless up to 420 bar system pressure
- Pressureless measurement of fluids with viscosities of up to 1.000 cSt at 22°C (equal to ISO VG 320) without the need for accessories
- Use of any sample vessel
- Internal data storage of more than 4,000 measurements
- Measurement printout via integrated thermoprinter
- Same measurement accuracy as a laboratory unit
- Multilingual menu navigation
- Battery running time of more than 4 hours

Accurate single particle counting technique
The volumetric sensor cell and sophisticated optical components guarantee high resolution and accuracy. Every particle passing through the sensor is detected. This design ensures the true measurement of even ultra clean fluids.

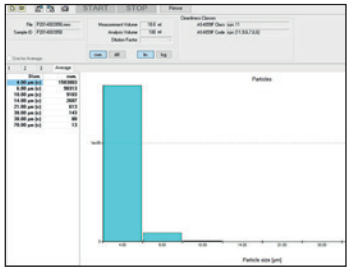
Calibration
The system is calibrated according to the international standard ISO 11171. This calibration is traceable to NIST standards. Historical calibrations including ISO 4402 are still available on request.

Software PAMAS Download
The PAMAS S40 comprises of the software tool - PAMAS Download. Transfer of the measurement results from the instrument is via a USB cable connected to a PC / laptop. The results can then be further processed, e.g. using Microsoft Excel®.



Software PAMAS Download

Software PAMAS PMA
Using the optional Software PAMAS PMA, the portable PAMAS S40 can be used via a PC like a laboratory unit.
- User-friendly setting of the measurement parameters
- Report and analysis of measuring data
- Measurement report including cleanliness codes and sample parameters in numerical and graphical presentation
- LIMS integration possible



Software PAMAS PMA

Reporting of measurement results
according to the following standards: ISO 4406, SAE AS4059, NAS 1638, GOST 17216, GJB 420B, CHARN, NAVAIR 01-1A-17 as well as raw data. When using the software PAMAS PMA, the measurement results can additionally be reported according to GJB 420A, SAE 749D, and ISO 11218.2. The model PAMAS S40 AVTUR can also report as per DEF-STAN 91-091.

Versions
- **PAMAS S40 Standard** for oils at up to 420 bar system pressure
- **PAMAS S40 Lube Oil** for highly viscous oils of up to 1,000 cSt
- **PAMAS S40 Fuel** for fuels such as petrol, diesel or kerosene
- **PAMAS S40 Skydrol** for phosphate ester based hydraulic fluids
- **PAMAS S40 AVTUR** for turbine fuels according to EI-IP 577 and DEF-STAN 91-091 as well as diesel according to IP PM FA

Rugged case PAMAS GO
All versions are optionally available in the robust PAMAS GO housing.

Technical data
- 8 size channels
- Touchscreen
- Integrated thermoprinter
- Data transfer: ASCII Code, USB interface
- Power supply: 100–240 V, 50–60 Hz
- Battery running time approx. 4 hours

Pressure range
- Low pressure: 0–6 bar (0–90 psi), up to 1,000 cSt
- High pressure: 3–420 bar (40–6,000 psi), up to 350 cSt

PAMAS Volumetric Sensor HCB-LD-50/50
Available size ranges:
- 4–70 µm(c) (ISO 11171)
- 2–100 µm (ISO 4402)

Max. particle concentration:
24.000 P/ml* at 25 ml/min**

Other sensors for larger particle sizes or higher concentrations are available on request.

Size
310 mm x 145 mm x 360 mm
(W x H x D)

Weight:
8 kg

* Coincidence error of 7.8 %
** Other flow rates are available on request.

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Management System ISO 9001:2015
www.tuv.com ID 9105038017

PAMAS HEAD OFFICE • Dieselstraße 10 • D-71277 Rutesheim • Phone +49 7152 99 63 0 • Fax +49 7152 99 63-32 • info@pamas.de

Find your local PAMAS branch office or representative at www.pamas.de