PAMAS
Partikelmess- und Analysesysteme

PAMAS S40 AVTUR
Portable Particle Counting System for Aviation Turbine Fuel

The PAMAS S40 AVTUR is a special version of the very successful PAMAS S40 automatic particle counting system that helps the aviation fuel industry to gather very accurate and reliable contamination analysis results.

The PAMAS S40 AVTUR has its own IP method (IP577), that was drafted, validated and published by the Energy Institute in London.

This guarantees highest quality of the method and best compatibility with other methods for contamination control. The method IP 577 has been included in revision 7 of the DEF STAN 91-91 published by the UK Ministry of Defence.

Applications:

- Online measurements at pressureless systems or at live systems up to 6 bar
- Offline measurement using sample bottles (laboratory mode)
- Long term analysis
- Bypass filtration monitoring
- Filter verification

Key features:

- 8 channel high resolution digital system for analysis
- Fully compliant with the standard method IP 577 of the Energy Institute London
- Fully compliant with the standard DEF STAN 91-91 of the UK Ministry of Defence
- According to ISO 4406 4 µm(c), 6 µm(c), 14 µm(c) based on ISO 11171
- from pressureless to pressurised sampling up to 6 bar
- User-friendly operation using touch screen with graphic display

REV 09/2018

IN THE WORLD OF PARTICLES PAMAS COUNTS

PAMAS S40 AVTUR

Easy documentation of contamination, cleaning process, and filtration performance

- The volumetric cell design of PAMAS sensors guarantees highest accuracy, resolution and best statistical information
- Measuring results reported in compliance with IP 577, DEF STAN 91-91, ISO 4406, NAS 1638, SAE AS 4059, GJB 420, GOST 17216 and NAVAIR 01-1A-17.
- Real portability with lab system accuracy
- Users can configure the system profile according to their needs
- Pressurised sensor avoids formation of bubbles
- Display and printout provide triple ISO codes, NAS- and SAE cleanliness classes, measurement volumes and particle numbers
- Highest repeatability and accuracy
- Password protected user levels
- Data storage of more than 4000 measurements
- User-friendly download software
- Operates on alternating current (90 - 240 V / 50 - 60 Hz AC) or on direct current (12 - 30 V DC) or with internal battery (for up to three hours operation)
- equipped with a sampling probe for batch sampling

The **PAMAS S40 AVTUR** is a portable system designed to count and size particles in fuels and aviation turbine fuel.
A backlit touch screen for menu guided user access, and an additional membrane keypad give easy operation. An integrated printer provides instant hard copies of measurement results.
Data files are compatible with most spreadsheet software.

Highly versatile due to a powerful 32-bit microprocessor allowing multiple automated sampling and data storage. User-friendly download software for transfer of stored measurement data to a PC as a basic feature.

Standard languages are English, German, French, Finnish, Dutch, Spanish, Hungarian, Russian, Chinese and Portuguese.

For batch sampling, the PAMAS S40 AVTUR is equipped with a sampling probe.

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

Single particle counting system using volumetric sensor cells

A highly sophisticated sensor cell and optics guarantees best resolution and accuracy even under high pressure conditions.

Particle counting can be achieved using many methods, but only the use of volumetric cells, like those used in PAMAS sensors, can guarantee that all particles passing through the sensor are counted.

This results in better statistical analysis and prevents the loss of information compared to in-situ cells that detect only a small portion of the whole sample flow, especially as the samples are getting cleaner.

Calibration

The Automatic Particle Counter is calibrated according to International Calibration Standards. The calibration is traceable to Standard Reference Material® of the NIST (National Institute of Standards and Technology). More than one calibration can be preconfigured in a single system.

Standards

Display shows particle numbers, cleanliness classes and size. Printout according to many international standards (e.g. IP 577, DEF STAN 91-91, ISO 4406, NAS 1638, SAE AS 4059, GJB 420, GOST 17216, NAVAIR 01-1A-17).

Technical data

Sampling system:
- Wear resistant ceramic piston pump with controlled constant flow.

Pressure range:
- From pressureless up to 6 bar (85 psi)

PAMAS Volumetric Sensor: PAMAS HCB-LD-50/50
Calibration ranges:
- 4 - 70 µm(c) according to ISO 11171 (standard calibration)
- 2 - 100 µm according to ISO 4402 (optional calibration)

Max. particle concentration: 24,000 p/ml at a nominal flow rate of 25 ml/min and a coincidence rate of 7.8%.

Counter:
- 8-channel particle counter
- 32-bit high performance CPU with sophisticated programmable
- digital domain signal conditioning and 4096 internal channels
- Data printout: 32 column thermo printer
- Data transfer: 8 bit ASCII code through USB port (57600 baud)
- Power supply: 90-240 V AC / 50-60 Hz or 12-30 V DC or via integrated battery for up to 3 hours operation
- Weight: approximately 8 kg
- Size: 310 mm x 145 mm x 360 mm

Options:
- rugged case PAMAS GO for harsh environments

Rugged case PAMAS GO for harsh environments

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