



## PAMAS S4031 WG

# Portable Particle Counting System for Water Based Hydraulic Fluids

### Compact analysing system for hydraulic fluids in the off shore oil industry

**User-friendly operation  
using touch screen with  
graphic display**

**Results according to:  
ISO 4406, SAE AS 4059,  
NAS 1638, GJB 420,  
GOST 17216 and NAVAIR  
01-1A-17**

- The volumetric cell design of PAMAS sensors guarantees the highest accuracy, resolution and best statistical information.
- Real portability with lab system accuracy
- Users can configure the system to their needs in profiles
- Display and printout provide triple ISO codes, NAS and SAE cleanliness classes, measurement volumes, and particle numbers
- Password protected user levels
- Data storage of more than 4000 measurements
- User-friendly download software
- Power supply: 90-230 V AC / 50-60 Hz or 12-30 V DC or via integrated battery for more than three hours operation

# PAMAS S4031 WG

## Delivers laboratory quality and on-site results



The **PAMAS S4031 WG** is designed for engineering workshop and laboratory use. It is small and portable and can be easily relocated to where it is needed. It is tried and tested with a reputation for dependability in the most demanding production environments.

Incorporating high resolution PAMAS laser light blockage technology which is trusted throughout industry for reliability and accuracy.

The pressurised sensor reduces the need for degassing allowing the counter to be plugged in and used on line up to a pressure of 100 psi. No need to send samples to the laboratory, with an integrated liquid pump the **PAMAS S4031 WG** can pull its own samples from a bottle, producing results quickly where they are needed.

The **PAMAS S4031 WG** is simple to operate via the touch screen user interface. A variety of sampling profiles can be created according to standards such as NAS 1638 and SAE AS 4059.

The number of used size channels can be preconfigured. So, the system can optionally be preconfigured to meet customer-specific subsets of cleanliness standards (e.g. SAE AS 4059 B-F, C-F, C/F, etc.).

The sample volume and the duration can also be varied and preconfigured.

The operator simply selects the sampling profile from a drop down option list on the touch screen and then proceeds by selecting start.

Rugged and tough portable workshop or laboratory particle counter including an integrated battery for mains free operation.

The **PAMAS S4031 WG** is a compact portable instrument for the measurement of water based hydraulic fluids used in the off shore oil industry.

The **PAMAS S4031 WG** laser particle counter is built for those hard working applications where flexibility in the work place is essential.

The unit has an integrated protection from contamination including a backflush operation to remove the contaminants from the system.

Intelligent yet simple to operate the **PAMAS S4031 WG** reports results according to NAS 1638 and to SAE AS 4059 and to ISO 4406 and to GJB 420 and to GOST 17216 and to NAVAIR 01-1A-17 cleanliness classes.

### Calibration

The Automatic Particle Counter is calibrated according to International Calibration Standards which are traceable to the NIST (National Institute of Standards and Technology).

### Applications

- Water based hydraulic fluids (polyglycols)
- Christmas trees
- Hydraulic Power Units
- subsea umbilicals
- hydraulic accumulators
- valves and control systems

Compatible with water based hydraulic fluids including the following:

- MacDermid:
  - Oceanic HW 540, 443, 443F
- Castrol: Transaqua series
- Pelagic 100
- Aqualink: 325-F Houghton
- Aqualink: HT804F
- Aqualink: 300-F

### Key features

- Online continuous test capability
- Individual bottle sampling
- Portable instrument
- Light weight and compact design
- Microsoft compatible software included
- Integrated printer
- Integrated battery
- 8 variable channels
- 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: HCB-LD-50/50

Size range:  
4 - 70  $\mu\text{m}(c)$   
(according to ISO 11171)  
2 - 100  $\mu\text{m}$   
(according to ISO 21501-3)  
1 - 200  $\mu\text{m}$ : option on request

Max. particle concentration:  
24.000 p/ml at a  
coincidence rate of 7.8%.

#### Controller:

- 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:  
90-230 V AC / 50-60 Hz  
or 12-30 V DC or via integrated battery for more than three hours operation
- Weight and Size:  
Approx. 8 kg  
310 mm x 145 mm x 360 mm



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, Email: info@pamas.de

**PAMAS USA** 1408 South Denver Avenue, Tulsa, OK 74119 USA, Phone: +1 918 743 6762, Fax: +1 918 743 6917, Email: clay.bielo@pamas.de

**PAMAS BENELUX** Mechelen Campus, Schaliënhoevedreef 20T, B-2800 Mechelen, Phone: +32 15 28 20 10, Mobile: +32 477 42 48 62, Email: paul.pollmann@pamas.de

**PAMAS FRANCE** Route du Tailleur 210/136, F-40170 Saint-Julien-en-Born, Mobile +33 6 25 33 20 41, Email: eric.colon@pamas.fr

**PAMAS LATIN AMERICA** Curitiba-Paraná, Brazil, Phone/Fax: +55 41 3022 5445, Mobile: +55 41 999 72 21 73, Email: marcelo.aiub@pamas.de

**PAMAS INDIA** No. 203, I floor, Oxford House, #15 Rustam Bagh Main Road, Bangalore 560017, India, Phone: +91 80 41 15 00 39, Email: info@pamas.in

**PAMAS HISPANIA** Calle Zubileta No. 13 1ºB, ES-48991 Algorta, Mobile: +34 67 75 39 699, Email: julian.malaina@pamas.de

**PAMAS UK** Sci-Tech Daresbury, Keckwick Lane, Daresbury, Cheshire WA4 4FS, Mobile: +44 79 17 71 33 66, Email: graeme.oakes@pamas.de

Please visit our website at [www.pamas.de](http://www.pamas.de)