

# PAMAS S4031 Portable Particle Counting System for Liquids

Mobile and compact measuring instrument for raw water, waste water and potable water, for organic and corrosive liquids, for filter test rigs and for component cleanliness control

User-friendly operation using touch screen with graphic display

- 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
- Highest repeatability and reproducibility
- Compact analysing system for liquids: raw water, waste water and potable water, organic and corrosive fluids
- Parts cleaning according to ISO 16232-9 and VDA-19
- Instrument can be used for batch and online sampling
- Sensor calibration with latex spheres according to ISO 21501
- Data storage of more than 4000 measurements

REV 02/2018

IN THE WORLD OF PARTICLES PAMAS COUNTS

# **PAMAS S4031** Portable particle counter with kelmess- und Analysesysteme flexible software for various applications

PAMAS introduces a new development in general liquid monitoring. The PAMAS S4031 particle counter is a portable self-contained instrument capable of analysing and reporting liquid contamination. The PAMAS S4031 can be used for batch and online sampling.

Where instant results are essential the PAMAS S4031 counter is the logical answer. Including our tried and tested high quality laser based sensor system, repeatable accurate results are produced quickly and easily.

With a simple-to-use touch screen user interface operation is easy and intuitive.

For higher concentration contamination measurements the instrument can be configured to measure up to 200,000 particles per ml. The unit has an integrated protection from contamination including a back flush operation to remove the contaminants from the system.

With 32 free adjustable size channels the system has the flexibility to match the most demanding applications.

The measuring results are reported according to common standards, including NAS 1638, SAE AS 4059 ISO 4406, GJB 420, GOST 17216 and NAVAIR 01-1A-17.

User-friendly download software for transfer of stored measurement data to a PC as a basic feature. Data files are compatible with most spreadsheet software.



### **Remote control with** software PAMAS PMA

File [20101210754006.mes Sample 10  Sample 1	Messurement Volame 10.0 ml Analpis Volame 100 ml Dilution Factor -	Covarianess Cassee 150 4606 195/12/6 NMS 1508 (4(4,0,00,00,00) 5AE 7400 (0
1 2 3 Average		
Diam. cum. 1.00 pm. 160227		Particles
2.00 am 17787		
2.00 µm 17707		
4.00 µm 55007		
5.00 am 2460		
7.00 gm 840		
10.00 gm 243	leald-	
15.00 am 37		
20.00 am 0		
25.99 am 0		
30.00 gm 0		
40.00 am 0		
40.00 µm 0		
60.00 pm 0	0 100 200 200 400 500 700	

The population histogram shows cumulative and differential particle counts.

Automatic storage and documentation in readable format. Classification of particle number and size within the sensor's size range.

PAMAS	$\checkmark$	PMA-Particle Measuring and Analysing Software
Andysophere 😵		22.08.201
Measurement file Sample ID Customer Sampling location Sampling date measured at User Counter Sensor Comment	Sample Custome 10.12.20 SB	H 10 3516 v5.2 Sie R35-02E7CB110000
Print	: Average	values of measurement(s) 1, 2, 3
Measured volume Analysed Volume Dilution Factor	: 10.0 ml : 100 ml :-	
SO 4406 NAS 1638 SAE 749D	: 15/12/6 : 4 (4, 0, 0 : 0	0, 00, 00)
Diamotex > 1.00 µm > 2.00 µm > 3.00 µm > 4.00 µm > 5.00 µm > 7.00 µm > 7.00 µm > 2.00 µm > 3.00 µm > 3.00 µm > 3.00 µm > 3.00 µm > 4.00 µm > 4.00 µm > 4.00 µm	cumulative 160227 17767 8633 5607 2460 840 243 37 37 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Diameters 1.60 - 2.60 µm 2.60 - 3.60 µm 3.60 - 5.00 µm 5.00 - 7.00 µm 7.00 - 10.00 µm 7.00 - 10.00 µm 5.00 - 20.00 µm 5.00 - 30.00 µm 5.00 - 30.00 µm 60.00 - 50.00 µm 60.00 - 50.00 µm > 10.00 µm > 10.00 µm	differential 142440 9153 3627 2547 1620 507 37 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Patients of
		2.00 4.00 7.00 15.00 25.00 46.00 80.00 100
		Particle size [µm]

Complete documentation showing measuring results in absolute and relative numbers

#### **Technical data**

#### Sampling system:

 Wear resistant ceramic piston pump with controlled constant flow.

#### **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: 90-230 V ÁĆ / 50-60 Hz or 12-30 V DC or via integrated battery for up to 3 hours operation
- Weight and Size: Approx. 8 kg 310 mm x 145 mm x 360 mm

#### **Volumetric sensors:** PAMAS HCB-LD-50/50

Size range: 2 - 200µm (1 - 400µm: option on request) Max. particle concentration: 24,000 p/ml\* at 25 ml/min\*\*

## PAMAS HCB-LD-25/25

Size range: 2 - 200 µm Max. particle concentration: 120,000 p/ml\* at 10 ml/min\*\*

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

- Coincidence error of 7.8%.
- \*\* Various flow-rates are available.

PAMAS HEAD OFFICE, Dieselstraße 10, D-71277 Rutesheim, Phone: +49 7152 99 63 0, Fax: +49 7152 99 63-32, E-Mail: info@pamas.de PAMAS USA, 1408 South Denver Avenue, Tulsa, OK 74119 USA, Phone: +1 918 743 6762, Fax: +1 918 743 6917, E-mail: 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, E-Mail: paul.pollmann@pamas.de PAMAS FRANCE, Route du Tailleur 210/136, F-40170 Saint-Julien-en-Born, Mobile +33 6 25 33 20 41, E-mail: eric.colon@pamas.fr PAMAS LATIN AMERICA, Curitiba-Paraná, Brazil, Phone/Fax: +55 41 3022 5445, Mobile: +55 41 999 72 21 73, E-Mail: 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, E-Mail: info@pamas.in PAMAS HISPANIA, Calle Zubilleta No. 13 1°B, ES-48991 Algorta, Mobile: +34 67 75 39 699, E-Mail: julian.malaina@pamas.de PAMAS UK, Sci-Tech Daresbury, Keckwick Lane, Daresbury, Cheshire WA4 4FS, Mobile: +44 79 17 71 33 66, E-Mail:graeme.oakes@pamas.de