

PAMAS WaterViewer **Online particle counter** **for water quality control**



PAMAS WaterViewer **Particle measurement** **system with inte-** **grated sensor, flow** **control, and sampling** **system**

Standard features:

- Programming capabilities make the system as versatile as a Programmable Logic Controller
- True single particle counting
- Fully automated operation
- Standard size range: 1-100 μm
- Particle concentrations from 0 up to 200,000 p/ml
- Sensors with different size ranges available
- System easily connected to analogue and digital devices
- Data transfer over ModBus

Optional features:

- Networking capabilities
- Expandable to up to 32 waterlines using automatic Multiplexer Unit
- Automated sensor cleaning
- Multiple analogue and digital data interface
- Status and alarms can be communicated over light signals or SMS alert

PAMAS WaterViewer

Water analysis, trend monitoring, and data storage



The **PAMAS WaterViewer** is a measurement instrument that detects and analyses particle numbers over particle sizes in function of time. Accepting and storing both analogue and digital signals, it can be integrated into nearly any type of measurement system. It automatically responds to conditions exceeding a pre-determined threshold and reacts through signal alert or through automatic adaption of measurement routines.

Multiple data interfaces make it as versatile as a Programmable Logic Controller.

PAMAS WaterViewers can be combined on a network of measurement devices to control a complete water treatment plant.

The optional Multiplexer Unit and the Sensor Flushing Unit are both fully controlled by the **PAMAS WaterViewer**. With the help of the Multiplexer Unit, a single measurement system can analyse up to 32 waterlines. The Sensor Flushing Unit automatically removes contamination debris out of the sensor and sends a cleaning report to the user.

The **PAMAS WaterViewer** has been designed to be modular making it easy to adapt to the user's changing requirements.

PAMAS WaterViewer

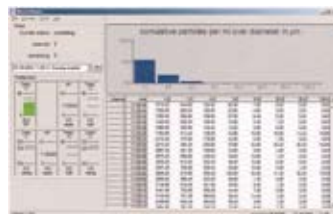
- Particle analysis in up to 8 size channels simultaneously
- Data storage in internal ring-buffer memory and long-term storage on external computer
- Constant flow rate through sensor by metering pump
- Communication ports for connection of system to external computer
- Flexible & programmable
- Can act as a Programmable Logic Controller (option)
- Automated sensor flushing (option) removes deposited debris
- Safety features for unattended long-term use
- Easy to connect
- Data storage in standard data format
- 21 cfr part 11 (option)



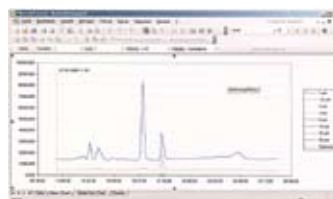
Equipped with a Multiplexer Unit, the PAMAS WaterViewer can analyse up to 32 different waterlines.



For online condition monitoring, the PAMAS WaterViewer can be fixed at the wall. Equipped with an aluminium mounting rack, it can also be used for on-site measurements.



The software helps to handle huge amounts of measuring data.



The software shows measuring reports in tables and graphs. This makes events and trends of particle numbers over size easily visible.

Technical data

Sampling system:

metering pump, wear resistant ceramic piston and cylinder

Counter system:

WaterViewer, 8 size ranges

Power supply:

via alternating current (90-240 V or 50-60 Hz) or via direct current (12-30 V)

Volumetric Sensors

PAMAS HCB-LD-15/25

Size range: 1–100 μm
Max. particle concentration: 200,000 p/ml* at 10 ml/min**

PAMAS HCB-LD-25/25

Size range: 1–200 μm
Max. particle concentration: 120,000 p/ml* at 10 ml/min**

PAMAS HCB-LD-50/50

Size range: 1–400 μm
Max. particle concentration: 24,000 p/ml* at 25 ml/min**

PAMAS HCB-LD-100

Size range: 2–800 μm
Max. particle concentration: 1,200 p/ml* at 50 ml/min**

* at a coincidence rate of 7.8%

** Various flow-rates are available on request.

Housing:

IP 65

Relative humidity:

0 - 100%, even condensing

Pressure range:

0.5 - 4 bar

Size and weight:

standard equipment:
300 x 400 x 242 mm
(W x H x D), approx. 11 kg

with Multiplexer Unit:
300 x 600 x 242 mm
(W x H x D), approx. 17 kg



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