AFG ANALYTIC GMBH

FPA *touch!*

FIBER POTENTIAL ANALYZER

Fast and reliable determination of the
Zeta Potential of fiber suspensions –
Take out, Switch on, Start measuring

ADVANTAGES

- smaller and significantly lighter than comparable devices
- comfortable transport (carry-on-luggage)
- integrated vacuum pump
- ready to use without assembly of further components
- full-automatic measuring and cleaning procedure
- internal memory for measurement data

USERS

- chemical suppliers
- pulp producers
- paper and board producers
- universities and institutes

The FPA *touch!* Fiber Potential Analyzer combines proven methods of Zeta Potential measurement with the known great simplicity of handling and functioning of the previous FPA versions. But in comparison the FPA *touch!* is much smaller and significantly lighter, and enhanced with new features.

BASIC

The surface charge of fibers, fillers, particles or colloidal dissolved substances in stock suspensions are defined by the Zeta Potential. The charge of the stock suspension can be split into the colloidal and particle charge, which is measured with the CAS *touch!* Charge Analyzing System. The surface charge of fibers and fillers is measured with the FPA *touch!* Fiber Potential Analyzer. Both charge levels together define the overall Zeta Potential of fiber suspensions.

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MEASURING PRINCIPLE

The FPA *touch!* determine the Zeta Potential of fibers and fillers according to the Helmholtz-Smoluchowski equation. The conductivity, the pressure difference and the streaming potential are measured simultaneously. The measuring principle of the FPA *touch!* is based on the method of measuring the streaming potential in a fiber plug. By building up a vacuum the fiber plug is formed automatically on a screen electrode in the measuring cell. And by periodically changing the vacuum during the measurement the charge clouds absorbed on the fibers are moving with the liquid stream and generating the streaming potential measured by the screen and ring electrode.

MEASURING RESULTS

zeta potential (mV)

conductivity (mS/cm)

streaming potential (mV)

APPLICATION AREAS

r&d

process & product optimization

process control

troubleshooting

complaint management

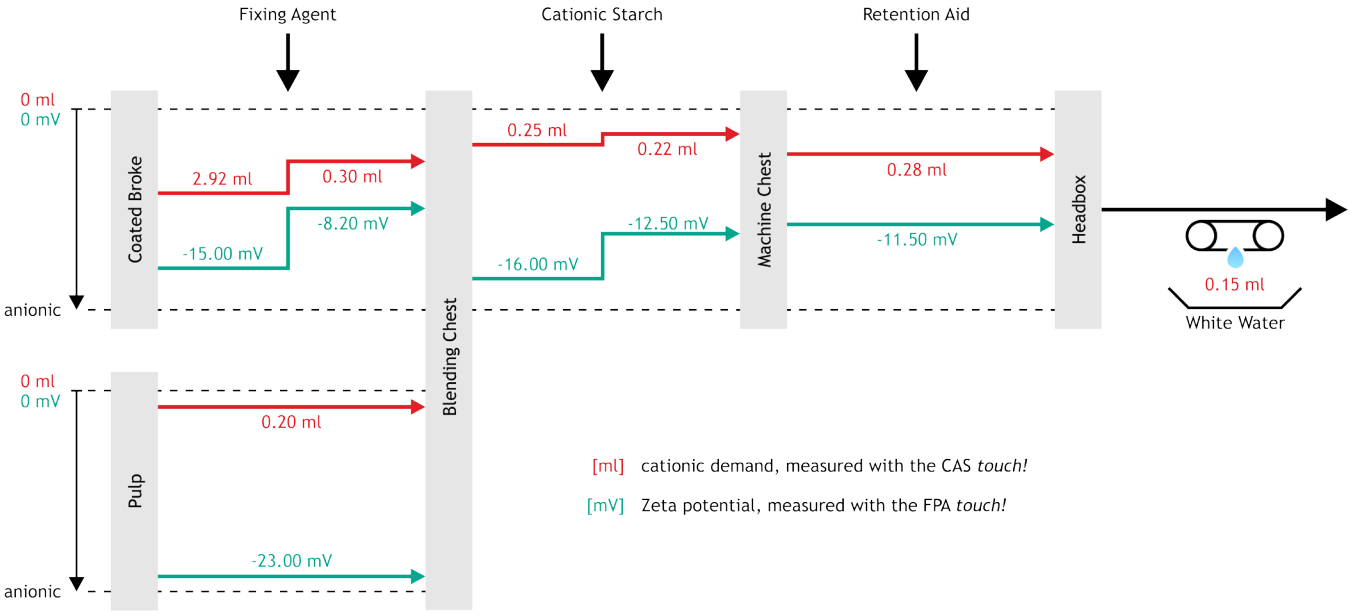
TECHNICAL DATA

device dimensions	28.5 x 23 x 17 cm (H x W x D)
device weight	approx 5.8 kg
power supply	100-240 V AC, 50/60 Hz
sample volume	min. 400 ml with fiber content 0.1-3.0 %
screen electrodes	40 - 315 µm available

SOFTWARE

AFG Measurement System

FPA *TOUCH!* APPLICATION EXAMPLE



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