

Particle Charge Analyzer

Flumsys PCA

JENSPRIMA's Flumsys PCA Particle Charge Analyzer is based on Streaming Current measurement technology and provides fast and accurate measurements of ionic and colloidal charge in aqueous samples. The Flumsys PCA can be titrated manually or connected to an external automated titration unit, allowing rapid determination of charge requirements and optimal chemical addition. The instrument directly displays the polarity and charge (mobile charge value) of the sample and is commonly used in water treatment and industrial process control.

Application

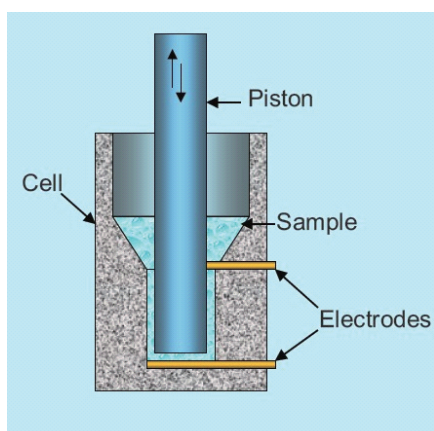
Papermaking
Chemical
Water Treatment
Pharmaceuticals
Beverage
Ceramics
Coatings
Brewing

Features

- Determining optimal chemical dosage
- Evaluating additive performance
- Optimizing process performance
- Quality control
- Reducing the cost of chemicals

Measurement Principle

The streaming current measuring cell (SC Cell) determines the sample charge and the end point of the titration. The cell consists of a high-precision cylinder and 2 electrodes (one on the bottom and one on the top). The electrodes are connected to the extended front part of the instrument housing. The measuring cell allows the sample to be injected from the top in a standard sample volume of 100 ml. Polymerized electrolytes (polymers) or flocculants are used as titration standards, and the colloidal particles are temporarily adsorbed on the piston and the wall of the measuring cell.



Driven by a motor, the precision piston moves up and down in the cylinder at a frequency of about 4 Hz, generating a strong liquid current, at which point the counter ions (i.e. counter ions) of the electrolyte generate a current between the two electrodes, which is then rectified and amplified, so that the streaming current with its polarity is displayed directly on the instrument display.



Technical parameter

Measuring principle:	streaming current
Power supply:	220VAC, 50/60Hz
Measuring range:	-1000-1000SC (mV)
Display:	Digital LED
Sample volume:	10 - 100ml
Output connection:	BNC connector
Response time:	1 second
Diagnostics:	Sensor LED
Cell Material:	PTFE
Output:	-1000-1000SC (mV)
Control:	Sensitivity Gain
Auto-titration:	Optional external auto-titrator
Weight:	4.5Kg
Dimensions:	170Wx220Hx230Dmm