



StreamerSense

Streaming Current Monitor

With the StreamerSense range of Streaming Current Monitors you get a world's first. The StreamerSense streaming current monitor is the first in the world to be designed in modular form so that it can be integrated with other sensors such as pH and UV254 to provide all the tools needed for a coagulation monitoring or a coagulation control instrumentation package.

- **Tough-field proven and reliable**
- **Stable and reliable - excellent process control**
- **Suitable for all potable waters***
- **Up to 12 months between maintenance**
- **User sensor verification**
- **More than 5,000 installed worldwide**



"With over 4,000 streaming current devices in use in the USA. I am really looking forward to using the StreamerSense."

John Clark, USA

The StreamerSense sensors are available with different controllers giving you the same great performance with different communication, display, and control options. With the StreamerSense range of streaming current monitors, you get everything that you need - and nothing that you don't, without sacrificing the quality of measurement.

***when charge neutralisation is the primary coagulation mechanism**

CRONOS® StreamerSense



- High Quality - Lowest Cost
- Multilingual
- High resolution grayscale display
- 9 buttons for easy navigation
- Graphing and datalogging
- Enclosure; wall, panel, pipe or pole mounting. IP65/Nema 4x.
- Options:
 - **Modbus RS485/LAN**
 - **Profibus DPV 1**
 - **Up to 2 sensors**
 - **PID/flow proportional controls**
 - **Remote sensors**
 - **Colour display**
 - **Downloadable data logs**

CRIUS®4.0 StreamerSense



- High Quality - Low Cost
- Multilingual
- High resolution colour display
- Intuitive user interface
- Downloadable data logs
- Customisable home pages
- All CRONOS4.0® options plus:
 - **Up to 8 sensors**
 - **Remote access via LAN**
 - **Remote access via 3G/4G**
 - **Expandable to 16 sensors**

For more information please see the individual brochures for CRONOS® and CRIUS®4.0

Sensor Selection

StreamerSense Rugged



- **Streaming current**
- **Large cell**
- **Large motor**
- **Longer life**
- **Up to 1.4 bar**
- **Up to 40 l/min**



Principle of Operation

The StreamerSense Streaming Current Monitor provides a measure of the net colloidal and ionic charge in the water stream. It does this by employing a reciprocating piston in a restricted 'cup' or 'boot'. As the water sample flows through the sensor, colloidal particles and ions are attracted to the plastic walls of the sensor and as the water flows past them at high velocities (due to the restricted flow path). The cloud of positive counter ions surrounding the colloid is stripped off resulting in a current flowing in the sensor. This is detected and output back to the controller.

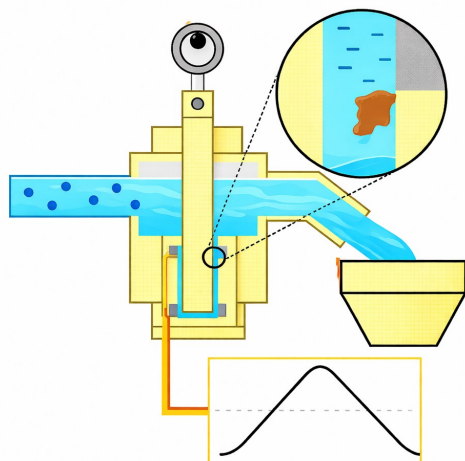


Fig. 1 StreamerSense Principle of Operation Visual

Applications

The primary application for streaming current monitors is in improving coagulation control in drinking water. The streaming current is related to Zeta Potential which is recognised as being a good measure of how much positively charged coagulant such as Alum or PAC is required to perform charge neutralisation/destabilisation in raw water.

Standard Features

- **Patented sensor design**
- **Quick-replacement probe and piston**
- **Handles sample flow rate up to 20lmin-1**
- **Automatic zero adjustment**
- **Expandable sensitivity (gain) adjustment**
- **High/low alarm output**

Optional Features

- **Automatic sensor flush**
- **Sensor maintenance option**
- **Full control including flow proportional**

Specification* StreamerSense

Sensor

Sample Flow Rate:	1-40 l/min
Sample Cell Type:	External receiver, high flow
Probe Type:	Quick replacement cartridge
Piston Type:	Quick replacement
Water Sample Connections:	Inlet 1" (25mm) FNPT
Water Sample Outlet:	1" (25mm) pipe to atmosphere
Materials Contacting Sample:	Delrin, viton, stainless steel, neoprene
Wiring Connections:	4 Conductor, shielded, 18 AWG
Self Diagnostics:	Motor - RPM, Signal health
Enclosure:	NEMA 250 type 4X, reinforced fibreglass
Power Requirements:	110 VAC, 60 Hz (standard) 220 VAC, 50 Hz (optional)
Operating Temperature:	0-50°C
Dimensions:	285mm (W), 234mm (H), 161mm (D)
Weight:	6.8kg

Optional Accessories

Automatic Sensor Flush:	Sensor flush only
Sensor Maintenance Option:	Sensor flush and chemical wash

**All subject to change without notice*