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**
  - **Up to 2 sensors**
  - **PID/flow proportional controls**
  - **Remote sensors**
  - **Color display**
  - **Downloadable data logs**

CRIUS® StreamerSense

- Highest Quality - Low Cost
- Multilingual
- High resolution color display
- Intuitive user interface
- Customizable home pages
- All CRONOS® options plus:
  - **Up to 4 sensors**
  - **Remote access via LAN**
  - **Remote access via GPRS**
  - **Expandable to 16 sensors**

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

Sensor Selection

StreamerSense

- **Streaming potential**
- **Lower cost**
- **Discharges to atmosphere**
- **Up to 19 l/min**

StreamerSense Rugged

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

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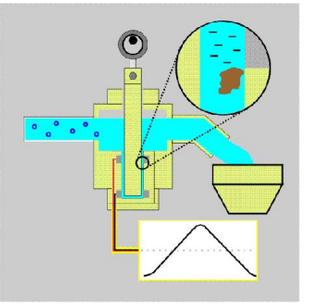
Principle of Operation



For an animated version, please visit www.processinstruments.net/streaming_current.php

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.

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 neutralization/destabilization in raw water.

For more information visit: www.processinstruments.net/products/streaming-current-monitor/

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**

Recommended Reading

Tech Note 20 Coagulation Control Using Streaming Current Monitoring, or visit www.processinstruments.net/products/coagulation-controller/

Specification* StreamerSense

Sample Flow Rate:	1-19 l/min
Sample Cell Type:	External receiver, high flow
Probe Type:	Quick replacement cartridge
Piston Type:	Quick replacement
Water Sample Connections:	Inlet 3/4" (19mm) O.D, barb type
Water Sample Outlet:	1" (25mm) pipe to atmosphere
Materials Contacting Sample:	Delrin, neoprene, viton, PVC, stainless steel
Wiring Connections:	4 Conductor shielded, 18 AWG
Self Diagnostics:	Motor, opto switch
Enclosure:	NEMA 250 type 4X, reinforced fiberglass
Power Requirements:	110 VAC, 60 Hz (standard) 220 VAC, 50 Hz (optional)
Operating Temperature:	1°C - 49°C
Dimensions:	234mm (W), 183mm (H), 135mm (D)
Weight:	4.5kg

Optional Accessories

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

Specification* StreamerSense Rugged

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
Wiring Connections:	4 Conductor, shielded, 22 AWG
Self Diagnostics:	Motor - RPM, Signal health
Enclosure:	NEMA 250 type 4X, reinforced fiberglass
Power Requirements:	110 VAC, 60 Hz (standard) 220 VAC, 50 Hz (optional)
Operating Temperature:	1°C - 49°C
Dimensions:	285mm (W), 234mm (H), 161mm (D)
Weight:	4.5kg

Optional Accessories

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

All subject to change without notice

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