

AF scientific, inc.

Clean Water Through Innovative Technology

MicroTSCM

Streaming Current Monitor

- Graphical Display
- Calibration to a Known Value
- Built-in Diagnostics
- User Programmable Offset
- On-Screen Instructions
- High / Low Gain Switch
- Three Separate Alarm Contacts



The MicroTSCM establishes a new level of control for plant operators that depend upon Streaming Current to maintain water quality. Unlike other systems, the instrument can be calibrated to a known Ion Charge unit (ICu) value, using a cationic polymer solution. Once calibrated, the operator can use the MicroTSCM to determine the control set-point for the plant. This set-point is established through optimization and it reflects the actual ICu of the sample stream.

MicroSCM Streaming Current Monitor

Establishing an actual ICu value for the control set-point ensures the operator can always return to the same conditions in the event of a plant upset, equipment failure, or shut down. Routine calibration ensures that the integrity of the output can be maintained by compensating for standard wear-and-tear on the probe and electronics.

The graphical display of the MicroSCM monitor provides the operator a fast and easy way to keep up with what is going on inside the plant. Historical trending of readings over the previous 8 or 24-hour period is continuously displayed as a graph on the screen.

The sensor design incorporated into the MicroSCM was developed to operate under the most turbid conditions. The HF MicroSCM monitor, coupled with leading-edge sensor technology provides an easy-to-use tool for precise control over the chemical dosing system.

Specifications

Range:	± 10 ICu (SCU)
Resolution:	0.01 ICu (SCU)
Accuracy:	± 0.1% of full scale
Response Time:	1 Second
Alarms:	2 Settable Hi/Low/Off 1 System Alarm 1 Flow Alarm (requires optional hardware)
Average Time:	User Selectable
Analog Output:	4-20 mA 0 to 10 VDC
Digital Outputs: (Optional)	RS-232 Serial RS-485 Serial
Display:	Graphical Trending and Numeric
Sensor Probe::	Submersible to a depth of 120mm 6 to 10 liters per minute flow rate required
Wetted Materials:	HPDE, PTFE, Stainless Steel, Neoprene, ABS

Standard Features

- **Graphical Display**
Quickly view historical trending of ICu readings over an 8 or 24 hour period.
- **Calibration to a Known Value**
Maintains accuracy over the life of the probe.
- **Built-in Diagnostics**
Full time diagnostic software automatically monitors and detects errors.
- **On-Screen Instructions**
Easy to use menus guide the operator through set-up and calibration procedures.
- **User Programmable Offset**
Simplify human interface by setting the output to reflect zero when optimum dosing conditions are met.
- **Three Separate Alarm Contacts**
System alarm and two user-programmable Hi/Low ICu alarms provide continuous confidence in the measuring process.
- **High / Low Gain Switch**

Optional Features

- **Flow Alarm**
Automatically alerts the operator if there is a disruption in flow to the sensor.
- **Proportional Integral Controller**
Automatically controls coagulant dosing.
- **Serial Ports**
The optional RS-232 or RS-485 serial ports allow the MicroSCM to easily adapt to a digital environment.

Ordering Information

Cat. No. Description

19549	MicroSCM I, 115V/240VAC, 50/60 Hz
19550	MicroSCM II, with built-in PI Controller
19553	MicroSCM III, with built-in PI Controller and RS-232
19554	MicroSCM IV, with built-in PI Controller and RS-485

All models include 25 ft. of interconnecting cable and Calibration Kit.

Accessories

19860	Printer - 120V, 40 column with 10 ft cable (RS-232 Req.)
19886L	Flow/Level Alarm, provides a remote alarm for inadequate sample flow.
19922	Calibration Kit
19986	NEMA 4X Housing for outdoor installation of monitor.
19994	Spare Cell and Probe Set.

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