Chlorine Measurement System

ClSys:DataStick

Features:

- ❖ Reagent-free amperometric design
- ❖ Compliant with EPA Method 334.0 for online drinking water monitoring
- ❖ Manual or Automatic pH compensation
- ❖ Temperature compensated
- ❖ Pre-calibrated, Plug & Play Sensors
- ❖ Rugged Teflon membrane in replaceable sensor cap
- ❖ Remote measurement, calibration, configuration and diagnostics
- ❖ Convenient turn-key AquaChlor monitoring system for optimal performance

Benefits:

- ❖Retains calibration in the head
- ❖Easy Sensor head replacement
- ❖Auto temperature compensation
- ❖Auto pH compensation
- ❖Use with AV38 controller.
- ❖Multiple communications protocols available
- ❖Reagent free

Applications:

- ❖ Drinking water
  – Production & distribution
- ❖ Food & beverage
  – Monitor sanitized
- ❖ Process water
  –Monitor sterilization of glassware
- ❖ Reverse osmosis/ultrapure water
  – Chlorine damages filter membranes

This free chlorine sensor will measure accurately in clean water processes between 4 and 9 pH. Best performance is achieved when used in applications where process pH, temperature, flow and pressure are stable.

When used with the Thermo Scientific AV38 Local Display/Controller and a pH DataStick sensor, measured hypochlorous acid (HOCl) and hypochlorite ion (OCl^-) concentrations can be used to determine free chlorine levels present.

System Specification

Measurement System Performance

Range:	0 to 10 ppm
Resolution:	0.01 ppm
Minimum Detection limit:	0.03ppm
Accuracy:	±3% of measured sample (at constant pH 4.0 to 7.2) ±10% of measured sample (at constant pH up to 9.0)
Step Response Time:	90% in 30 seconds

Operational Environment

Temperature Range: 0°C to 45 °C
Maximum Pressure: 100psig @ 45 °C
Sample Flow Rate in chamber: 200 - 250 ml/min

Free Chlorine Operation

When chlorine and pH DataSticks are connected to the AV38 local display, HOCl and OCl^- dissociation curves are pH compensated and used to calculate free chlorine present. A stable pH value can also be entered manually.

Power Requirements

DC Option:	**Voltage Range: 10** to 30 VDC **Maximum Power:** 200 mW **Typical Power:** 120 mW
AC Option:	90-240 VAC, 50-60 Hz, 4 watts

Construction

Process Electrode:	Gold Cathode /Silver Anode	**Sensor Head Material:**	**Noryl**
Membrane:	**Teflon**	**Data stick Material:**	**CPVC**
O-rings:	Viton®	**Weight**	1.2 lbs
Flow chamber:	Acrylic		

Units of Measure

Measurement Units: ppm
Temperature Units: °C, °F

Calibration

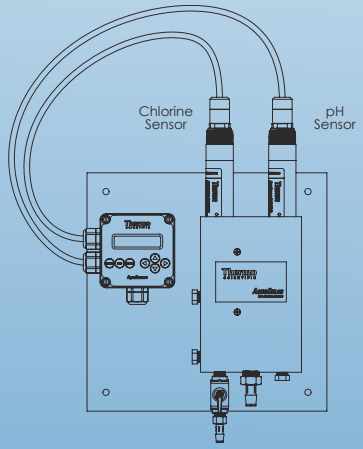
Sample: 1 point, Zero: 1 point, **Temperature:** 1 point Note: Precalibrated at the factory

Other Configuration Options

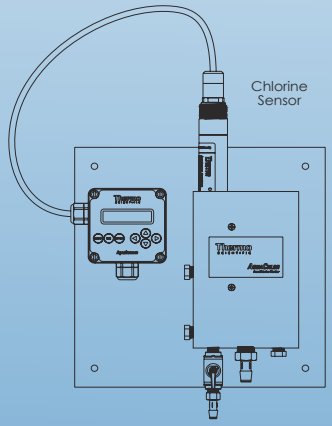
Sensor Filter:	0-100 seconds
Temperature Filter:	0-100 secs

Approvals and Ratings

Immunity & Emissions: CE Certified 89/336/EEC: CISPER 11, EN61000 (-4-2,-4-3,-4-4,-4-6, 4-8)
Safety: cULus Listed; 367G E303570
Hazardous Locations: Haz Loc Class 1, Division 2, Groups A, B, C, D. Max Ambient 50 °C



AquaChlor System with free chlorine and pH DataStick sensors installed.



AquaChlor System with free chlorine DataStick sensor only.

Provides universal conversion of sensor signals and interactive communications for measurement, calibration, configuration and diagnostics. Mounting adapters, junction boxes and recharge kits are available.

Supplied by: Envitech Ltd. Unit S7, Capital Business Park, Parkway, Cardiff, CF3 2PU
Tel: 02920 364252, Fax 02920 369876, E-mail: sales@envitech.co.uk