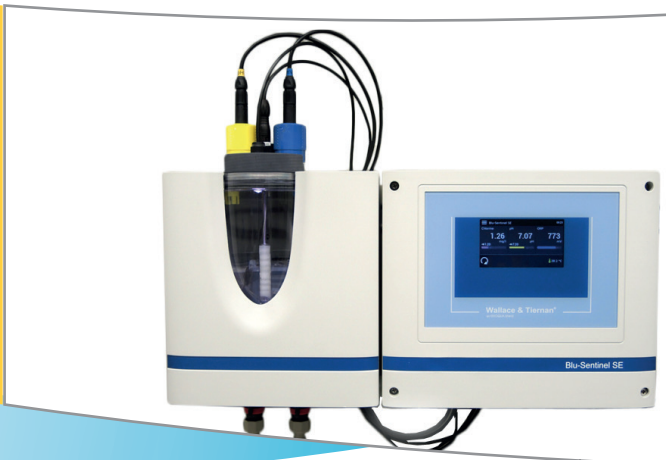
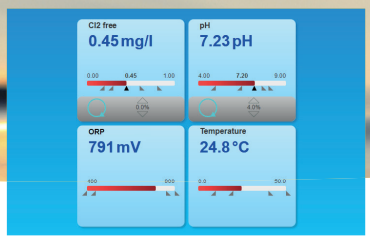




WEB VIEW EXAMPLE

BLU-SENTINEL™ SE

AQUATICS ANALYZERS/CONTROLLERS

The Blu-Sentinel™ SE controller is a state of the art disinfection controller that measures pool water free chlorine concentration, temperature, ORP, conductivity and pH values. The Blu-Sentinel SE system features an intuitive, color touch-screen display and unique color based status indicator in the flow cell that provides a visual indication of water quality; white = all is good, yellow = check parameters, red = fault, check immediately. The controller provides chemical feed outputs to a variety chemical feed devices to control the disinfection parameter of either free chlorine or ORP as well as a chemical feed output to maintain the pH value and the conductivity at the desired setpoints.

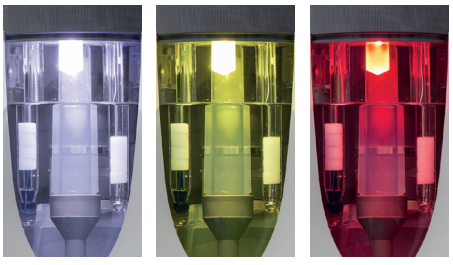
DESIGN AND FUNCTION

The system consists of a pressurised flow cell, accommodating up to four sensors and state of the art electronics. The flow cell permits visual checks of the sample water flow as well as the sensors. The integral "Multi-Sensor" constantly monitors the sample water flow, measures the sample water temperature and includes a large water ground to protect against electrical noise. The flow control valve guarantees a constant sample water flow and quartz grit enables hydro mechanical cleaning of the free chlorine sensor for long term measurement stability. The flow cell includes an LED light stick which indicates the pool water chemistry status from a distance.

Various controller outputs, alarm contacts and as well as four optional analog 0/4 – 20 mA outputs and five digital inputs are standard. Six freely assignable relay contacts are also available that can be configured as chemical feed outputs or alarm contacts. In addition the following safety functions are built-in: alarm and chemical feed interruption triggered by the sample water flow switch; alarm and chemical feed interruption in case of circulation pump failure; shutdown in the case of supply-tank-empty-alarm;

Benefits:

- 4 disinfection parameters: free chlorine, ORP, pH and temperature
- Integrated web views: visualization and operation from up to four pools via web enabled devices and standard browsers
- 4" color touch screen for truly intuitive operation
- Robust Strantrol® HRR/pH probes
- LED-backlit flow cell for quick status inication
- Up to 30% chemical savings by automating the chemical feed process
- Switch between ORP and free chlorine for control as desired
- Ethernet communication



dosing time monitoring and dosing time delay. The plug-in sensors, the pre-wired sensor cables and the modular mounting provide for fast and simple installation, start-up and maintenance of the system.

ELECTRONIC MODULE MEASUREMENT INPUTS

Free chlorine:

Rugged 3-electrode Strantrol® Pool chlorine sensor with sealed electrolyte KCl supply. Potentiostatic 3-electrode amperometric design; Measuring range 0 to max 10 mg/l, adjustable in 1 mg/l steps; Resolution up to 10 mg/l: 0.01 mg/l; Temperature compensation 0 – 50 °C; Sensor plug connection IP 67

pH value:

Measuring range 0 to 10 pH, start of range adjustable from 0 to 5, end of range adjustable from 9 to 10 pH, scale freely selectable in 1 pH increments; Resolution 0.01 pH; Temperature compensation 0 – 50 °C
Sensor plug connection IP 67

ORP:

Measuring range 0 to 1000 mV; start of range from 0 to 400 mV, end of range from 500 to 1000 mV, Scale freely selectable in 100 mV steps; Resolution 1 mV; Sensor plug connection IP 67

Conductivity:

Robust 4 electrode measuring cell with integrated temperature sensor; Measuring ranges: 500/1000/2500 µS/cm or 5.00/10.0/20.0/50.0/100.0/200.0/300 mS/cm, Temperature compensation 0 - 50 °C, plug connection

Multi-sensor:

- Measurement of sample water temperature by Pt 1000 sensor
- Protection against external electrical noise by a stainless steel sleeve (earthing of sample water)

Display:

4.3 inch capacitive colour touchscreen with backlight

Digital inputs:

1 x assigned to sample water flow switch , 4 x freely selectable, e.g. chemical tank empty, external stop

Output contacts:

6 x freely selectable alarm contacts/general alarm signal as well as controller outputs for free chlorine, or ORP as well as pH

Relay status is depicted on the operating display
max. 3.15 A/250 V AC, 0.2 A/220 V DC

Analog outputs (optional):

4 x 0/4 – 20 mA, freely configurable
Load protected ≤ 500 Ohm, Accuracy < 0.5 % FS
Galvanically isolated up to 50 V relative to earth

Power supply: 100 - 240 V AC± 10 %, 50 – 60 Hz, 14 W
Ambient temperature: 0 – 50 °C

Enclosure: IP 66

Testing and marking: CE, UL & CSA, NSF 50
Dimensions (W x H x D):
320 x 311 x 135 mm (12.5 x 12 x 5 inches)
Weight (incl. packing): approx. 5 kg (11 lbs)

FLOW CELL MODULE

Flow control valve:

- Controlled sample water flow: 33 l/h
- Control range 0.2 – 3.0 bar at valve inlet (3 – 43 psig)
- Maximum back pressure: From pressureless up to 1.5 bar at valve outlet (0 to 22 psig)
- Maximum sample water temperature: 50 °C
- LED alert (white, yellow and red)

Additional features:

- Sample water valve
- Isolating valves at sample water inlet and outlet of the flow block module in pressurized design
- Ball check valve at sample water inlet
- Simple cell drain assembly
- Integrated fitting to hold sensor during calibration

Sample water connections:

PVC hose 6 x 3 mm or PE hose 6 x 1 mm
Hose connectors on 1/2 " union

Weight (incl. packing): approx. 2.5 kg (5.5 lbs)
Dimensions (W x H x D):
253 x 375 x 163 mm (10 x 15 x 6 inches)

evoqua WATER TECHNOLOGIES

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