

## Specifications Sheet – Pool Controllers

Aquarius Pool Controllers use advanced Aquarius Proprietary Logic (APL) to provide precision dosage for your pool disinfection needs. It has programmable Super-chlorination and Data Logging. These controllers are fully automated and designed to function with various pool sizes. Their abilities include:

- Using either liquid or gaseous chlorine for disinfection
- Hydrochloric acid or Carbon Dioxide for pH control
- Programmable Super-chlorination routine for enhanced disinfection
- Data Logging for reporting and recording performance of pool treatment regime
- ORP measurement of chlorine residue



Our controllers come with the option of dosing pumps utilizing a combination of different chemicals regulated with an intelligent control system for efficient water treatment and disinfection.

<b>Models for Pool Disinfection Applications using Sodium Hypochlorite &amp; Acid</b>				
<b>Detail Specification</b>	<b>SL100</b>	<b>SL111</b>	<b>SL113</b>	<b>SL136</b>
<b>Dose – Acid</b>	Optional	1.0 ltr/hr	1.0 ltr/hr	3.0 ltr/hr
<b>Dose – Sodium Hypo</b>	Optional	1.0 ltr/hr	3.0 ltr/hr	2 x 3.0 ltr/hr
<b>Models for Pool Disinfection Applications using Sod Hypochlorite &amp; CO2</b>				
<b>Detail Specification</b>	<b>SC100</b>	<b>SC101</b>	<b>SC103</b>	<b>SC106</b>
<b>pH Control</b>	CO2	CO2	CO2	CO2
<b>Dose – Sodium Hypo</b>	Optional	1.0 ltr/hr	3.0 ltr/hr	2 x 3.0 ltr/hr
<b>Models for Pool Disinfection Applications using Electrolytic Chlorinator &amp; Acid</b>				
<b>Detail Specification</b>	<b>SE100</b>	<b>SE110</b>	<b>SE130</b>	
<b>pH Control</b>	Optional	1.0 ltr/hr	3.0 ltr/hr	
<b>Sensors Fitted</b>	Flow/Conductivity/Temperature & pH/ORP/Ground Reference Probes			
<b>Shipping Dim. &amp; Weight</b>	52cm x 62cm x 23cm and cubic weight is 18kgs			
<b>Communications Port</b>	Interfaced to any RS232 device via the DB9 plug on the circuit board located internally			
<b>Electrical Supply</b>	220 – 250Vac 50 or 60 Hz, 10Amp continuously powered “clean” mains supply – 7Amp output relays			
<b>Alarms - User Defined</b>	All defined set points are able to be associated with alarm outputs as +, -, or +/- ranges. The alarm signals may be directed to various output destinations.			
<b>Alarms - No-volt Contact</b>	A standard common no-volt alarm is incorporated in all controllers for DDC operation.			
<b>Data Logging</b>	Data logging of analogue readings and the relay ON times is standard – Log can be set from 1 min to 240 min intervals. At 30 min intervals, the log can contain more than 30 days of data, downloaded either locally to a laptop or remotely via a GSM modem.			
<b>Manifold Ratings Press. &amp; Temp. rating Flow rate required Plumbing</b>	Manifolds are designed from uPVC and rated to 700 kPa at 50 °C. A minimum flow rate of 12 ltr/min is required to activate the flow sensor Plumbing inlet & outlets are 20mm BSP fem. Threads or can be fitted with 19mm hosetails			
<b>Non-Oxidising &amp; Oxidising: Bio. Programs &amp; Timer Control</b>	ORP (where selected) – are controlled by two independent timers, microprocessor controlled to operate on an individual day, or Mon to Fri, Mon + Wed + Fri, or everyday basis. Pre-bleed & bleed lockout facilities can be programmed for each timer to operate in conjunction with biocide dosing. Activation is to 12.5% of conductivity set-point - below for pre-bleed & above for bleed lockout Timer on ORP models can be used to control ORP output in TMR mode.			

<b>Pumps Models</b>	
<b>Peristaltic</b>	Available in 1 & 3 ltr/hr @ 350kPa. These pumps are specially designed to be used with APL control and recommended to be used at 50% duty cycle
<b>Peristaltic - Variable</b>	Available in 1 & 3 ltr/hr @ 350kPa. These pumps are specially designed to be used with APL control and recommended to be used at 50% duty cycle
<b>High Pressure Pumps</b>	Available in 1, 2, 5, 10 & 20 ltr/hr with variable control.

Module Designation	pH	ORP - mV	Conductivity – mS/cm	Temperature °C
<b>Operating Range</b>	0 – 14	0 – 999	N.A.	0 – 100
<b>Resolution</b>	0.01	1	N.A.	0.1
<b>Accuracy</b>	+/- 0.02	+/- 1	N.A.	+/- 0.2
<b>Repeatability</b>	+/- 0.02	+/- 2	N.A.	+/- 0.2
<b>Alarm Range</b>	+/- 0 – 3.5	+/- 0 – 400	N.A.	N/A
<b>Dead Band</b>	N/A	N/A	N.A.	N/A
<b>Control Type</b>	APL	APL	N.A.	N/A
<b>Sensor Press. Rating</b>	700 kPa	700 kPa	N.A.	700 kPa
<b>Sensor Temp. Rating</b>	50 °C	50 °C	N.A.	50 °C

<b>Accessories to Complete and Maintain the System</b>	
<b>Weatherproof Socket</b>	10 Amp weatherproof power sockets with relay activation
<b>Water Meter</b>	An impulse water meter that provides pulses proportional to flow. This is to allow Inhibitor dosage in proportion to system make-up rate
<b>Water Usage Metering (WUM)</b>	By adding a WUM card, water usage readings will be reflected on the controller and can also be data logged. Readings will show month-to-date and year-to-date figures of make-up, bleed and backwash
<b>Tank Alarm</b>	To provide warning when chemical tank is near empty. Alarm can also be sent via SMS when Communications Bundle is installed

<b>Optional Communications Package to Enhance the System</b>	
<b>Communications Bundle</b>	GSM modem with AquaGuard 2 software can be added to enable remote access and downloading of data from the controller. User will also be able to receive controller alarm via SMS
<b>AquaGuard 2</b>	AquaGuard 2 software for local access/downloading of data from controller into computer spreadsheet and graph format
<b>4-20mA Analogue Input</b>	Accepts a 4-20mA signal from a stand-alone meter. Data are displayed on the Aquarius Controller and data logged. Alarm can also be activated via SMS.
<b>BMS Card</b>	A plug-on card that provides 4 analogue signals as 4 - 20 mA + 4 events as contact only signals – means of data transfer to BMS system
<b>Modbus</b>	Modbus 485 card to enhance digital data communications (2 way) between BCMS and controller

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