

## Specifications Sheet – ULTIMA TW series Controllers

ULTIMA provides the ultimate in ease and control right at your fingertips, with a state of art 7” touch screen and incorporating elegant styling and cutting edge display.

Aquarius Ultima Trade Waste and Disinfection controllers are specifically designed to treat industrial and commercial waste water to prevent harmful effects on health, safety or the environment.

Using automated ORP or FAC and dual pH control pumps, our Controllers will ensure the water is properly treated before release.



Models with pH control and optional ORP/FAC		
Detail Specification	ULTIMA TW (UTD series)	ULTIMA TW (UTDO series)
Conductivity output	Optional	Optional
pH Acid pump	Optional	Optional
pH Base pump	Optional	Optional
ORP pump	Optional	Optional
ORP-B (sec ORP) pump	Optional	Optional
FAC pump	Optional	-
FAC-B (sec FAC) pump	Optional	-
Pre Treatment pump	Optional	Optional
Sensors Fitted	Flow/Conductivity/Temperature & pH/ORP/Ground Reference Probes, FAC (Free Available Chlorine) probe for UTD series only	
Additional sensors	Tank Level Indicators to indicate the remaining chemical in the tanks	
Screen Protector	A heavy duty Autotext XE screen protector protects the 7” touch screen to prevent ingress of water and chemicals. Autotex XE contains a UV absorbing chemical which dramatically increases its resistance to yellowing and premature embrittlement in outdoor applications.	
Shipping Dim. & Weight	54cm x 36cm x 21cm and cubic weight is 15kgs	
Communications Port	2x USB ports for use with WIFI or Ethernet, or for importing/exporting settings/data	
Electrical Supply	230VAC +10%/-6% 10Amp continuously powered “clean” mains supply – Standard outputs can pull a combined total of 5A.	
Alarms - User Defined Alarms - No-volt Contact	All controlled probes are associated with alarms. An alarm will be triggered when the value exceeds the customizable range from the setpoint. An active alarm will be displayed on the screen and trigger the common-alarm relay, as well as send an email or SMS alarm for web-enabled models. A no-voltage common alarm relay is incorporated in all controllers for DDC operation.	
Data Logging	1 minute data logging of all readings and outputs is standard. The controller memory can log more than 6 months of data, which can be exported to a USB memory device as CSV files or viewed on Aquareporter as graphs. All calibration data is also stored for troubleshooting.	
Settings	All settings can be downloaded to a USB memory device and uploaded to another controller if they use similar settings, or stored on a computer for archiving.	
Password	Three levels of access is provided to the ULTIMA controllers using one password. This includes "Unlocked", "Read Only" and "Locked" access. "Locked" mode requires a password if enabled. If "Read Only" mode is enabled, it will allow viewing all data and settings and calibrating the controller without a password.	
Manifold Ratings Press. & Temp. rating Flow rate required Plumbing	Manifolds are designed from uPVC and rated to 700 kPa at 50 °C. A minimum flow rate of 12 L/min is required to activate the flow sensor Plumbing inlet & outlets are 20mm BSP fem. Threads or can be fitted with 19mm hosetails	

7 day timers	All outputs can be controlled by independent timers, to operate on an individual day, or selected days of the week, on a 4-week basis. Accessory timers using “Before”, “With” and “After” functions provide a variety of lockout or run facilities which can be programmed to operate in conjunction with each individual timer. Pre-set safety limits protect the system against high TDS, water waste, High ORP, High pH, Low pH as a result of incorrectly set accessory timers.
Pre Treatment Dosing	Pre Treatment chemical can be dosed according to impulse from water metering. Water Meter input is already available. Other modes include Bleed, Continuous or Flow.

Pumps Models	
Peristaltic	Available in 1 & 3 L/hr @ 300kPa. These pumps are specially designed to be used with APL control
High Pressure Pumps	Available in 2, 5, 10 & 20 L/hr with variable control.

Module Designation	pH	ORP mV	Conductivity µS/cm	Temperature °C	FAC ppm	Level Indicators
Operating Range	2 – 12	0 – 999	0 – 99,999	0 – 100	0 – 10*	
Resolution	0.01	1	1	0.1	0.01*	
Alarm Range	+/- 0 – 3.5	+/- 0 – 400	+/- 200 – 1,000	N/A	0.5 – 2	
Dead Band	N/A	N/A	50	N/A	N/A	
Control Type	APL	APL	On/Off	N/A	APL	
Sensor Press. Rating- kPa	700	700	700	700	700	
Sensor Temp. Rating- °C	60	60	60	60	60	

Accessories to Complete and Maintain the System	
Power points	4 sockets are included in the controller box to plug the pumps in
Solenoid for Outputs	Options of 15mm, 20mm or 25mm with non-return valve are offered to suit your application
Water Meter	An impulse water meter that provides pulses proportional to flow to calculate water usage. This is also to allow Pre Treatment dosage in proportion to flow rate
Tank Alarm	To provide warning when chemical tank is near empty. Alarm can also be sent via SMS when Communications Bundle is installed
Tank Level Indicators	To provide information on the amount of chemical remaining in the tanks, input ports for up to 5 chemical tank indicators are available.

Optional Communications Package to Enhance the System	
Communications Bundle	3G modem, Wi-Fi and Ethernet to enable remote access to the controller to see live data, change settings, receive alarms via SMS or e-mail, see and download trend charts ...
AquaReporter	AquaReporter website is designed for remote access to the controllers
4-20mA Analogue Input	Accepts a 4-20mA signal from an external device. Data can be calibrated to a meaningful number and is displayed on the Ultima and data logged. If desired, an output can be controlled and an alarm can also be activated.

\*FAC parameters depend on the individual system parameters and as a minimum is affected by flow, conductivity and pH of the actual water being treated.