

TECHNICAL DATA SHEET – ULTIMA PRO SERIES CONTROLLER



Aquarius ULTIMA PRO provides ultimate ease and control at your fingertips.

Features:

- 7" touch screen with cutting-edge display, elegant styling
- User-friendly navigation
- Dynamic and customizable to your application
- Remote monitoring and control: modem, WiFi, Ethernet
- 6-month data logging & historical trend charts

ULTIMA PRO for demanding industrial water treatment applications including:

- Reverse Osmosis and Filtration Systems
- Waste Water
- Potable Water
- Pools and Spas

Module Designation	pH	ORP mV	Conductivity $\mu\text{S/cm}$	Temperature $^{\circ}\text{C}$	FAC chlorine PPM
Operating Range	4 – 10	0 – 999	0 – 99,999	0 – 100	0 – 200*
Resolution	0.01	1	1	0.1	0.1
Alarm Range (plus/minus)	0.3 – 3	25 – 400	200 – 1,000	0.5 – 40	0.5 – 2
Dead Band	1.5% of set point				
Control Type	APL	APL	On/Off	N/A	APL
Control Modes	Disabled, Flow-Dependent or Continuous				
Sensor Press. Rating kPa	280	280	280	280	280
Sensor Temp. Rating $^{\circ}\text{C}$	45	45	60	60	45, 50 & 70

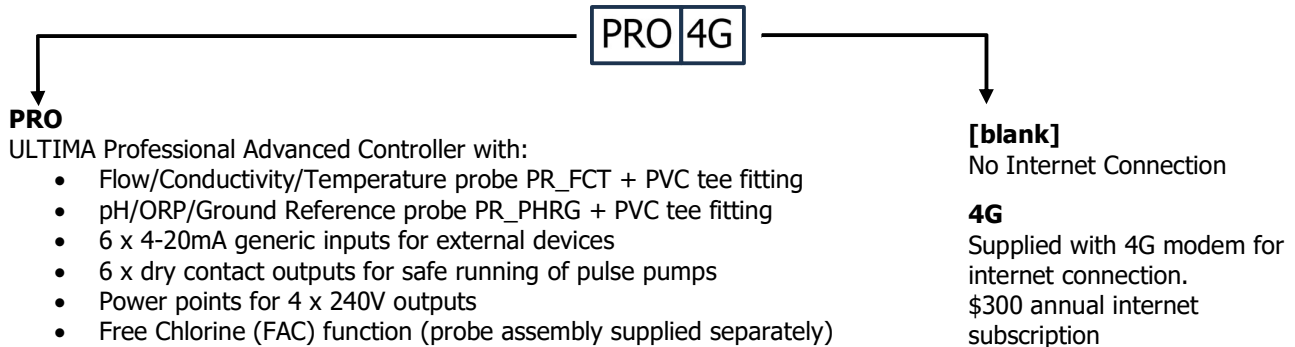
*different ranges available

Features	
7-day timers	Outputs may be activated via 7-day timers set on selected days of the week, 4-week cycle.
Accessory Timers	4 x accessory timers link to each 7-day timer using "Before", "With" and "After" function.
Pre-Treatment Modes	For accurate dosage of water pre-treatment chemicals to RO systems. "Water Meter" – proportional dosing according to the impulse from water meter. "PPM" – accurate dosage of metered water treatment chemicals (vol/vol%).
Dispersant	Functions control hourly volumetric dosage rate for inhibitor & dispersant applications.
Fuzzy Control	Configurable dynamic control for outputs controlling to a process value (sensor) set point. Adjusts control rate as process value approaches setpoint. Minimise overshoot & hysteresis.
LSI	Approximates system water Langelier Saturation Index based on input average calcium hardness.
Alarms: User-Defined	All controller probes and inputs have alarm mode capability. Alarm is triggered when value deviates outside range. Active alarm will be displayed on screen and via common-alarm relay.
Alarms: Common	1 x no-volt common alarm relay incorporated in all controllers for DDC operation. Common alarm to output 14 is standard for all PRO models.
Alarms: No-Flow	No-Flow alarm function standard for all PRO models.
Data Logging	Controller memory can log >6 months of data, exportable to USB memory device as CSV files or viewed on AquaReporter as graphs. Calibration data stored for troubleshooting.
Settings	Settings can be downloaded to USB, cloned to other PRO controllers or stored on a PC.
Password	Three levels of access available using one password: Unlocked, Read Only, & Locked.

Specifications

Electrical Supply	Dual input 240VAC power supply. Requires 230VAC +10%/-6% 10A continuous clean supply.
Touchscreen Display	Resistive 7" touchscreen + heavy duty Autotext XE screen protector resists UV & chemicals.
Programmable Outputs	14 programmable outputs, configurable via input value, timer, accessory, or manual control. 50V/240V outputs available to suit variety of applications.
Input Modules	Conductivity/TDS, pH/pHB, ORP/ORPB, Temperature and FAC/FACB (Free Available Chlorine). FAC option requires additional accessories.
Additional Generic Inputs	6 x 4-20mA/0-5V additional signal inputs from external sensors and devices. Configure to desired parameters, outputs and alarms, display on screen, trend & log data.
Communications Port	2 x USB ports for use with WiFi or Ethernet, or for importing/exporting settings/data. Modem connection port for 4G internet connectivity.

Ordering Guide



Standard Shipping Dim. & Weight - **54cm x 36cm x 21cm, 15kgs**

Optional Communications Packages

Communications Bundle	4G modem, WiFi 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. Settings and Data can be viewed/changed as if you were at the controller.
Modbus	ULTIMA PRO can be fitted with a Modbus PCB board to enable Modbus to BCMS/DDC.
4-20mA Analogue	ULTIMA PRO can be fitted with a BMS PCB board to enable 8 x 4-20mA data to BCMS/DDC.

Optional Accessories

Manifold	20mm PVC-U manifold rated 700kPa @ 50°C. Min recommended flowrate 18 L/min. Plumbing inlet/outlet: 20mm BSP female or 19mm hose tails. PVC backboard supplied separately.
Dosing Pumps	Peristaltic: Available in 1 & 3 L/hr @ 300kPa. Designed for use with APL control. High Pressure Pulse/Diaphragm: 2, 5, 10 & 20 L/hr with variable control.
Solenoid Valves	Options of 15mm, 20mm, 25mm, 40mm & 50mm available.
BCD Solenoid Kits	15mm, 20mm or 25mm to suit BCD size, c/w non-return valve.
BCD Feeders	4kg, 12kg, 25kg or 100kg available.
Ext. Solenoid Cable	2.5m, 240VAC extension cable for remote bleed solenoids.
Impulse Water Meter	Provides pulses proportional to flow. Enables dosage proportional to a flow rate.
Tank Level Switch	Provides alarm when chemical tank is near empty. 500mm & 1000mm available.
External Sensors	External sensors outputting 4-20mA or 0-5V can be accepted. Options include: Free Available Chlorine/ Total Chlorine membrane sensors; Turbidity; Dissolved Oxygen; COD Analysers, etc.