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**W A L C H E M**

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IWAKI America Inc.

# Water Treatment Controllers

Cooling Tower



Disinfection



Pools and Spas



Boilers



Wastewater Treatment



## W100 Series Controllers provide an economical and reliable way to keep your water treatment program under control.

### W100 Cooling Tower/Boiler Features:

- Large display with icon-based programming makes setup easy
- Universal sensor input provides extraordinary flexibility; the same controller can be used with almost any type of sensor needed
- Multiple language support allows simple setup no matter where your business takes you
- The third control relay allows the controller to be used in more places than other entry level products
- Economical package with no additional cost for timer functionality
- Wall-mount package for easy installation
- Complete flexibility in the function of each relay
  - » Bleed on conductivity
  - » Bleed time proportional to makeup water volume
  - » Boiler Blowdown on conductivity using intermittent sampling
  - » Feed in proportion to bleed time
  - » Feed time proportional to makeup water volume
  - » Feed as a percentage of elapsed time
  - » Biocide timer with pre-bleed and post-feed bleed lockout options
  - » Probe wash timer
  - » Alarm
- Optional analog (4-20 mA) output for recording, datalogging, proportional control, or connection to building energy management systems



### W100 pH/ORP, Conductivity, Disinfection has all the features of the Cooling Tower/Boiler controller *plus*:

- Three pH/ORP models available for use with amplified electrodes, non-amplified electrodes with a BNC connector or non-amplified electrodes without a connector
- Complete flexibility in the function of each relay
  - » On/Off Set point
  - » Time Proportional Control
  - » Pulse Proportional Control (when purchased with 4-20mA or pulse solid state opto outputs)
  - » In-range or Out-of-range activation
  - » Probe wash timer
  - » Timer-based activation
  - » Activation based upon the state of a contact closure
  - » Timed activation triggered by a Water Contactor or Paddlewheel flow meter's accumulated total flow
  - » Activate with another output
  - » Alarm
  - » PID Control (when purchased with 4-20mA or pulse solid state opto outputs)

### W100P Panel Mount Controller Features:

- Compact 1/4 DIN panel mount enclosure
- Universal sensor input; conductivity (contacting and electrodeless), amplified pH/ORP, or disinfection
- Four control outputs
- Two pH/ORP models for use with non-amplified electrodes with or without BNC connector
- Same flexibility of each relay as the pH/ORP controller above



## W600 Series Controllers provide powerful programming and complete control in a broader range of water treatment applications.

With easy, icon-based programming on the large touchscreen display, the W600 can be configured to control up to 6 complex functions. The universal sensor input permits exceptional flexibility to utilize almost any type of sensor. Internet connectivity allows you to maintain control via remote access.



# W600 Series

- Large touchscreen display with icon based programming makes setup easy
- Universal sensor input provides extraordinary flexibility; the same controller can be used with almost any type of sensor needed
- Combination Sensor Input and Analog Input board that add even more flexibility
- Lead/Lag control of up to 6 relays
- Optional dual analog (4-20 mA) input for Fluorometers or nearly any other process value
- Multiple language support allows simple setup no matter where your business takes you
- Six control outputs allow the controller to be used in more applications
- Economical wall-mount package for easy installation
- On-screen and web page graphing of sensor values and control output status
- Two Virtual Inputs that are calculated from two real inputs (cycles of concentration, % rejection, etc.)
- Complete flexibility in the function of each relay
  - » On/Off Setpoint
  - » Time Proportional Control
  - » Pulse Proportional Control (when purchased with 4-20mA or pulse solid state opto outputs)
  - » PID Control (when purchased with 4-20mA or pulse solid state opto outputs)
  - » In-Range or Out-of-Range activation
  - » Probe wash
  - » Timer-based activation
  - » Activation based upon the state of a contact closure
  - » Timed activation triggered by a Water Contactor or Paddlewheel flow meter's accumulate total flow
  - » Activate with another output
  - » Activate as a percent of another output's on-time
  - » Alarm
  - » Spike Set Point
- For Cooling Tower and Boiler applications:
  - » Biocide Timer
  - » Boiler blowdown on conductivity using intermittent sampling
- Datalogging
- Emailing Alarm messages, Datalog reports or System Summary reports
- Ethernet option for remote access via the Internet, LAN or Modbus/TCP

### Typical Applications for W600/W100 Controllers

- Wastewater neutralization & disinfection
- Food and Beverage disinfection
- Potable water treatment
- Swimming pools & spas
- Cooling tower biocide control
- Metal finishing & printed circuit board
- Irrigation & fertigation
- RO Systems



## Wind WebMaster® General Industrial Water Treatment Controllers with flexible multi-input/output platform and wide range of sensor measurement capabilities.

WIND WebMaster® sets a new standard for Industrial Water Treatment Controllers. The WIND WebMaster has a flexible multi-input/output platform, a wide range of analytical sensor measurement capabilities, and an extensive assortment of integrated communications and data handling features. The data can be retrieved automatically (email Excel file attachment) or manually, through the convenience of a standard USB flash disk. All together, it represents the perfect balance between innovation, flexibility, and simplicity.

- Fully integrates functions of a transmitter, PLC, data-logger and auto-dialer into a rugged, industrial, NEMA 4X (IP65) package.
- No proprietary software required to view live data – just a web browser. Access live or stored data remotely within the facility (LAN connection) or from anywhere in the world (cell or landline modem).
- No expensive PLC programming and re-programming – all changes made intuitively using a standard web browser.
- Extensive built-in plug-n-play communications options; Ethernet, Landline modem, Cell modem, USB (laptop & Flash disk support)
- A wide range of direct sensor measurements:
  - » pH
  - » Conductivity
  - » Chlorine dioxide
  - » Peracetic acid
  - » Hydrogen Peroxide
  - » ORP
  - » Free chlorine
  - » Ozone
  - » Electrodeless conductivity
- Instant alarm notification via cell phone text message, email, or local alarm relay.



## WebAlert® seamlessly web-enables your installed equipment, providing local and remote access to vital system information

Walchem's WebAlert was developed to meet the increasing demands for improved operational efficiencies and enhancements to service programs that can be gained by continuous monitoring of remote equipment and systems. WebAlert seamlessly web-enables your installed equipment, providing local and remote access to vital system information, without the need to physically visit remote sites.

Unlike PLC's or similar devices, WebAlert does not require a software programmer for customization to your application. This reduces upfront costs and eliminates recurring expenses for software maintenance. Commissioning is as simple as connecting with a laptop and following the intuitive menus to configure the WebAlert to meet your needs.

The data handling and communications options in WebAlert are truly innovative. Ethernet and USB are standard features, therefore local or plant networked PC's can be connected and communicating with WebAlert in true Plug & Play fashion.

- Integrates the functions of a monitor, data logger and auto-dialer in one low cost package.
- System status reports and datalog files can be emailed automatically on a regular basis.
- Instant alarm notification via cell phone text message, email, or local alarm relay.
- No subscription service, monthly fees, or proprietary software is required.
- Monitor up to six (6) 4-20mA signals and six (6) discrete inputs.
- Access live or stored data remotely within the facility (LAN) or from anywhere in the world.



## WebMasterONE® - the most advanced online cooling tower/boiler controller in the water treatment industry.

The flexible multi-input/output platform allows you to control multiple cooling towers, boilers, closed loops, and condensate lines with just one controller. Four direct sensor inputs are available (choose from pH, ORP, conductivity, chlorine and chlorine dioxide) along with twelve discrete inputs, eight analog inputs, and four analog outputs.

An extensive assortment of integrated communications and data handling features is included that enables water treatment professionals to provide more effective water management services. The innovative, fully synchronized VTouch® provides you with a quick, centralized 24/7 awareness of account status with the ability to LIVE Connect to any of your controllers in the field with one simple mouse-click, regardless of connection type! No phone numbers or IP addresses to remember. All of the standard cooling tower and boiler water treatment control methods are included, as well as many unique control methods to improve your system's performance.



- Extensive built-in Plug & Play communications options:
  - » Ethernet
  - » Cell modem
  - » Landline modem
  - » USB (laptop & flash disk support)
- Easy to start-up and use - with just a web browser!
- VTouch® provides quick, centralized 24/7 awareness of account status with the ability to LIVE Connect to any of your controllers in the field with one simple mouse-click.
- System status reports and datalog files can be sent automatically
- Instant alarm notification via email, cell phone text message or local alarm relay
- Wide range of direct sensor measurements:
  - » pH
  - » ORP
  - » Conductivity
  - » Electrodeless conductivity
  - » Free chlorine/bromine
  - » Chlorine dioxide
- Modbus read/write is available for seamless integration with building energy management, distributed control, process management and SCADA systems
- Protect the building's infrastructure while conserving water, energy and chemicals

## VTouch® Remote Account Manager

VTouch is a collection of technologies designed for companies offering managed water treatment services. The VTouch solution allows service companies to more effectively manage remote accounts by significantly reducing the complexities associated with the deployment of water treatment service programs based around communicating products.

The VTouch Account Manager is fully synchronized with Walchem's web based controllers, making set-up and configuration simple and fast. Just specify the type of remote communications needed for new or existing controllers and Walchem takes care of the rest. No need to sort out and track complicated and constantly moving cellular data or dial-up ISP plans. VTouch bundles the communications services, giving you a completely turn-key solution.

The innovative, fully synchronized nature of VTouch provides you with a quick, centralized 24/7 awareness of account status with the ability to LIVE Connect to any of your controllers in the field with one simple mouse-click, regardless of connection type!

WebMasterONE® & VTouch®

# W400 Plating Series

## W400 Series Plating Controllers with USB data collection give metal finishing professionals the tools they need to deliver a higher level of service.

Walchem's WCU410 Copper Controller and WNI Nickel Controller are optoelectronic on-line analyzers that measure the actual concentration of copper or nickel in solution. They are used in a variety of applications including electroless plating baths and microetch baths (including oxide-replacement types).

The WCU410 may be switched from electroless copper to microetch via the menu, eliminating the need for a second controller. It reduces the need for manual titration, improves yield, and in microetch applications improves productivity by reducing the frequency of bath change-outs.

The WNI410 is available as nickel-only, or with a pH control option which may be added in the field. Two separate pump outputs for nickel and reducer and another for pH are used, each of which is capable of totalizing either pump on-time, volume pumped, or metal turnovers.

Integrated datalogging is available to validate system performance. A USB memory stick is all that's needed to extract data and event logs that include copper or nickel measurements, and relay status. Download logs from the USB stick to a PC at your convenience. It couldn't be easier!



### Ensure Optimal Performance and Maximum Efficiency

Precise control of metal and other chemical levels provides consistent plating or etching rates and improves bath stability.

### Concentration Read in Units

Selectable between grams per liter (g/L) or ounces per gallon (oz/gal). Backlit digital display also acts as a bar graph for a continuous "visual summary" of measurement versus set point.

### Operator Adjustable

Concentration set point, alarm set points (high and low), dead band and pump on time are all easily adjustable. An interlock feature allows external devices (such as a flow switch) to interlock control relays.

### Simple, Integrated Data Collection

Download stored data from the controller to a USB stick. Use the data to simply and easily validate system performance. The data and event logs show copper or nickel values, as well as accumulated chemical feed and relay activation times.

### Four Separate Control Relays & Outputs (WCU)

May be used to add copper, caustic, formaldehyde or chelator/stabilizer chemistries. Each output has a replenishment totalizer which may be set in units of time or volume.

### Optional pH Input Board (WNI)

May be used to add pH adjustment chemistry. Output has a replenishment totalizer which may be set in units of time or volume.

### More Informative Monthly Reports

Download stored data from the controller to a USB flash stick.

### Efficient Customer Service

Quickly identify system upsets by knowing exactly what happened and when.



# High quality accessories for cooling tower, boiler, potable water, and wastewater applications

All of Walchem's accessories are carefully designed and selected for compatibility with our pumps and controllers to enable our customers to provide a complete system solution. Here is just a sampling of the sensors and accessories available from Walchem:

## Fluorometers

The Little Dipper 2 in-line fluorometer is a rugged, 24/7 sampling device that provides maximum performance, minimal maintenance, and solid state reliability. It can be used with data collection systems to monitor and control the level of treatment chemicals for industrial applications. The handheld Little Dipper is a small, light-weight and highly durable fluorometer ideal for quick measurements in the field.



## Contacting Conductivity Sensors

Contacting conductivity sensors are ideal for use in cooling towers and boilers, reverse osmosis equipment, and other non-oily applications. A variety of cell constants are available to handle a range of conductivities.



## Electrodeless Conductivity Sensors

Electrodeless conductivity sensors may be installed in a variety of very harsh chemical control applications, including oily cleaner baths, chromates, rinse tanks, fume scrubbers and other concentrated chemicals up to a conductivity of 1000 mS/cm (range varies with solution temperature).



## Disinfection Sensors

Amperometric disinfection sensors offer a cost effective and reliable solution to your disinfection control requirements. We offer sensors, in varying ranges of concentration, for free chlorine/bromine, total chlorine, chlorine dioxide, ozone, peracetic acid and hydrogen peroxide. Whether the application is a cooling tower, food and beverage, drinking water, wastewater, or swimming pool, these sensors are the ideal solution.



## pH/ORP Sensors

Cost-effective differential pH/ORP electrodes for industrial and municipal applications.



## Copper/Nickel Sensors


Copper/Nickel sensors are optoelectronic on-line analyzers designed for use in electroless copper/nickel baths, and microetch baths that contain more than 0.10 grams/liter (g/L) of copper or nickel ions. Immersible copper sensors are available for direct in-tank monitoring of solutions, or flow-through sensors that are designed for out-of-tank monitoring.



## Water Meters

WFM Series water meters have earned a reputation for design simplicity, wide range of applications and accuracy in low-quality water. The WFM Series uses the widely recognized multi-jet principle, which has been accepted as an international standard for many years. These meters are available with either a two-wire reed switch, or a solid state, three-wire Hall effect sensor.





Walchem integrates its advanced sensing, instrumentation, fluid handling and communications technologies to deliver reliable and innovative solutions to the global water treatment market

Our in-house engineering is driven by quality, technology and innovation. For more information on the entire Walchem product line, visit: [www.walchem.com](http://www.walchem.com)

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