

# Water Treatment Controllers



# W A L C H E M

**IWAKI America Inc.**

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 [walchem.com](http://walchem.com).



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# W100 Series

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

- 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
- The third control relay allows the controller to be used in more places than other entry level products
- Optional analog (4-20 mA) output for recording, datalogging, proportional control or connection to building energy management systems
- Wall-mount package for easy installation
- Complete flexibility in the function of each relay

## For Cooling Tower or Boiler Applications:

- 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 percent of elapsed time
- Biocide timer with pre-bleed and post-feed bleed lockout options

## For General Conductivity, pH, ORP, and Disinfection Applications:

- 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 other output
- Alarm
- PID Control (when purchased with 4-20mA or pulse solid-state opto outputs)
- Probe Wash Timer



## W100P Panel Mount Controller Features:

- Compact 1/4 DIN panel mount enclosure
- Universal sensor input; conductivity (contacting and electrodeless), amplified pH/ORP/ISE, or disinfection
- Four control outputs
- Two pH/ORP/ISE models for use with non-amplified electrodes with or without BNC connector
- Same flexibility of each relay as the wall mount W100 controllers



# W600 Series

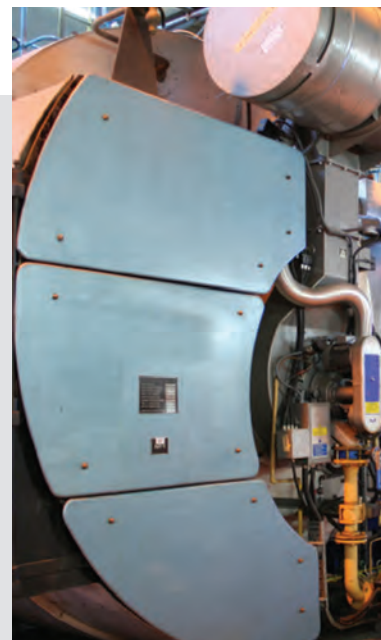
The **W600 Series Controllers** provide powerful programming and complete control in a broad range of water treatment applications.

- Large touchscreen display
- 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
- Economical wall-mount package for easy installation
- On-screen and web page graphing of sensor values and control output status
- Complete flexibility in the function of each relay
- Datalogging
- Emailing Alarm messages, Datalog, Graph, or System Summary reports
- Ethernet option for remote access via the Internet, LAN or Modbus/TCP



+ The **W600 Series** has all the features of the W100 Series controller *plus*:

- 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
- Six control outputs allow the controller to be used in more applications
- Two Virtual Inputs that are calculated from two real inputs (cycles of concentration, % rejection, etc.)



# W600 Series Metal Finishing

The W600 Series Copper Nickel Controllers have all the features of the W600 Series *plus*:

- Two sensor input slots provide extraordinary flexibility; the same controller can be used with almost any type of sensor needed
  - Copper or Nickel plus pH
  - Dual analog inputs for any 4-20 mA transmitter
  - Universal analytical sensor card for pH/ORP/ISE, conductivity or disinfection
  - Combination analog input and analytical sensor input
- Two virtual inputs that are calculated from two real inputs or one input and a constant
- Six control outputs allow the controller to be used in more applications
  - Plating Control (on/off with totalizing as metal turnovers)
  - Plating Follow (activate with another relay)
  - Flow Timer
  - Lead/Lag control of up to 6 relays
- On-screen and web page graphing of sensor values and control output status



## W600 Series Cu/Ni Controllers

provide reliable, flexible and powerful control for your electroless plating or etching process

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## Typical Applications for W900/W600/W100 Controllers

Wastewater Neutralization + Disinfection | RO Systems

Food and Beverage Disinfection | Potable Water Treatment | Swimming Pools + Spas

Cooling Tower/Boiler Control | Metal Finishing + Printed Circuit Board | Irrigation + Fertiligation



# W900 Series

THE NEXT GENERATION OF

# POWERFUL CONTROL

Enjoy unparalleled versatility and powerful programming for complete control of chemical metering pumps and valves in a broad range of water treatment applications.



The W900 Series has all the features of the W600 Series controller *plus*:

- Four I/O slots allow complete flexibility in adding sensors, analog inputs, analog outputs and LPR corrosion sensors
  - Up to 8 sensor inputs
  - Up to 24 analog inputs
  - Up to 16 analog outputs
- 12 digital inputs
- Eight relay control outputs
- Up to 8 virtual inputs, including calculations, redundant sensor and disturbance input
- Up to 8 virtual outputs
- Optional WiFi connection, to the LAN or to a mobile device
- Eight relay control outputs
- Optional BACnet over Ethernet

## Additional Relay Functions:

- Flow Proportional Control
- PPM Volume
- Target PPM
- Flow meter ratio
- Volumetric Blending
- Disturbance Variable Control

## Walchem Fluent®

Walchem Fluent® is a new cloud-based, water treatment management software tool that amplifies the value of Walchem controllers. The Walchem Fluent® solution allows service companies to quickly access the status of all processes under their control. Advanced alarm notification, acknowledgment, and escalation helps maximize the efficiency of the service operation.



Walchem Fluent® is fully synchronized with Walchem's web-based controllers: the W600 and W900, as well as legacy models, making set-up and configuration simple and fast. Just connect the Fluent-enabled controller to the Internet through an Ethernet connection to a LAN or cellular gateway, and the controller data is sent to your secure account where it can be graphed, compared, stored and downloaded to show your customers the quality service you provide.

The innovative, fully synchronized nature of Walchem Fluent® provides a quick, centralized 24/7 awareness of account status with the ability to remotely connect to controllers in the field with one simple mouse click, without needing to know how it's connected to the Internet or what its address is. Once connected, it's just like interacting with the controller in person.

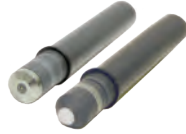
# Sensors + Accessories

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

Carefully designed accessories 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:

## 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 cooling tower, food and beverage, drinking water, wastewater or swimming pool, these sensors are the ideal solution.



## Fluorometers

The Little Dipper 2 and Pyxis in-line fluorometers are rugged, 24/7 sampling devices that provide maximum performance, minimal maintenance and solid state reliability. They can be used with data collection systems to monitor and control the level of treatment chemicals for cooling tower and boiler applications. The handheld Little Dipper is a small, lightweight 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.



## 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.



## 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).



## 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.



## Metering Pumps

The E-Class is the most innovative and comprehensive metering pump product line in the world. Over 50 years of pump experience and a commitment to superior mechanical design has led to development of many industry firsts, including 360 stroke-per-minute technology, and the world's highest capacity solenoid metering pumps.

## Accessories

To complete your system, Walchem provides high quality accessories that are required 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.

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