

OVERVIEW

Walchem's 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.

Beyond the extensive list of capabilities, WIND WebMaster® has set an industry-wide ease-of-use benchmark. All together, it represents the perfect balance between Innovation, Flexibility, and Simplicity.



SUMMARY OF KEY BENEFITS



Fully integrates functions of a transmitter, PLC, datalogger and auto-dialer into a rugged, industrial, NEMA 4X 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
- » USB (Laptop and FlashDisk support)
- » Landline modem
- » Cell modem



A wide range of direct sensor measurements:

- » pH
- » Conductivity
- » Chlorine Dioxide
- » Peracetic Acid
- » ORP
- » Free Chlorine
- » Ozone
- » Electrodeless Conductivity



PID control for relay and analog outputs



Modbus TCP read and write capability



Instant alarm notification via cell phone text message, email, or local alarm relay



System status reports and datalog files can be emailed automatically

Innovation

WIND WebMaster® has been designed with convenience and ease-of-use in mind. It has extensive built-in datalogging capability so there's no need for a separate datalogging device. The data can be retrieved automatically (email Excel file attachment) or manually, through the convenience of a standard USB flash disk.



Simple data extraction to USB stick

Simplicity and Flexibility

Unlike PLC's or similar devices, WIND WebMaster® 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 WIND WebMaster® to meet your needs.

» **SCR Mapping**

WIND WebMaster® provides the flexibility of SCR mapping (Sensor – Control – Relay) to allow you to select any Sensor input (direct analytical, 4–20mA, flowmeter or discrete) and the Control method (from a wide range of choices) and assign them to a Relay. With up to 21 user-defined inputs, the WIND WebMaster® has the flexibility to be programmed for virtually any water treatment application.

Each sensor input can be assigned to a relay for control. In addition to the 4 direct analytical sensor inputs, WIND WebMaster® has the ability to bring in 8 analog inputs and 9 digital inputs, and is equipped with 8 relay outputs. Sensor inputs can be assigned to any one of up to four 4-20mA outputs.

» **Report Options**

A variety of reporting options can be utilized to meet your needs. A system summary report provides a snapshot of current conditions and alarms. A datalog report can be sent on a regular basis for historical trending. In addition, email and cell phone text alarm messages can be sent.



Receive alarms via cell phone text messaging

Spreadsheets



Receive spreadsheet datalogs as an attachment to an email at user-defined time periods.

» **Sensor: User selects type of sensor**

Sensors (1 - 4):			
Sensor 1	pH	Sensor 3	Chlorine (B)
Sensor 2	ORP	Sensor 4	Chlorine-dioxide (B)
Digital Inputs:			
Input A	Interlock	Input 3	Not Used
Input B	LevelSwitch	Input 4	Contacting Conductivity
Input C	Contacting Flow Meter	Input 5	Electrodeless Conductivity
Input 1	Generic Counter	Input 6	pH
Input 2	LevelSwitch		ORP
			High Temp Conductivity
			Chlorine (A)
			Chlorine (B)
			Chlorine-dioxide (A)
			Chlorine-dioxide (B)
			Ozone
			Peracetic acid

» **Control: User selects control method for each relay**

Relays (1 - 8) Control Mode:			
Relay 1	On/Off Setpoint	Relay 5	Time Proportional
Relay 2	PID	Relay 6	24 Hour Timer
Relay 3	Activate Based on a Flow Ratio	Relay 7	Alarm
Relay 4	In Range/Out of Range	Relay 8	Not Used
Analog Output (1 - 4) Control Mode:			
Output 1	Not Used	Output	Not Used
Output 2	Not Used	Output	On/Off Setpoint
		Output	Time Proportional
		Output	Flow Based Control
		Output	Activate With Another Relay
		Output	Activate After Another Relay (%)
		Output	Activate After Another Relay (Fixed Time)
		Output	Activate as % of Time
		Output	Alarm
		Output	Activate Based on a Flow Ratio
		Output	24 Hour Timer
		Output	1 Week Timer
		Output	2 Week Timer
		Output	4 Week Timer
		Output	Activate on a DI
Relays (1 - 8) Input Assignment:			
Relay 1	pH Primary(S1)	Relay 5	Pulse Proportional
Relay 2	pH Primary(S1)	Relay 6	Probe Wash
Relay 3	Not Applicable	Relay 7	PID
Relay 4	Please select an input	Relay 8	Counter Based Control
			In Range/Out of Range
			Not Applicable

» **Control: User assigns sensor, analog input or digital input to desired relay**

Relays (1 - 8) Input Assignment:			
Relay 1	WWT Influent pH(S1)	Relay 5	Please select an input
Relay 2	WWT Effluent pH(S2)	Relay 6	Tank 1 Level(AL_6)
Relay 3	Tank 1 ORP(S3)	Relay 7	Process Temp(AL_7)
Relay 4	Process ClO2(S4)	Relay 8	Caustic(AL_5)
Analog Outputs (1 - 4) Input Assignment:			
Output 1	Paddlewheel1(DL_5)	Output 3	WWT Influent pH(S1)
Output 2	Paddlewheel1(DL_5)	Output 4	WWT Effluent pH(S2)
			WWT Effluent pH(S2) Temp
			Tank 1 ORP(S3)
			Process ClO2(S4)
			Level 2(AL_1)
			Level 4(AL_2)
			Ozone(AL_3)
			Chlorine(AL_4)
			Caustic(AL_5)
			Tank 1 Level(AL_6)
			Process Temp(AL_7)
			System Pressure(AL_8)

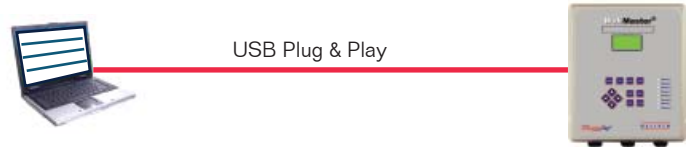
LCD Display Setup	
Select up to four parameters to display on the LCD screen	
Measurements	
WWT Influent pH (S1) Measure	
WWT Effluent pH (S2) Measure	

Communications Overview

With an embedded web server, WebMaster® utilizes standard TCP/IP Internet communications. Remote communications can be established with WebMaster® via the Internet or on a direct line with modem-to-modem capability. USB Plug and Play and Ethernet are included to allow easy on-site access for plant personnel and system operators. Multiple users can access the controller simultaneously. A graduated password protection system allows users varied degrees of access from view only to full system configuration. In addition, WebMaster® delivers a range of user-friendly information reporting tools including email notifications for datalogs, alarms and system summaries.

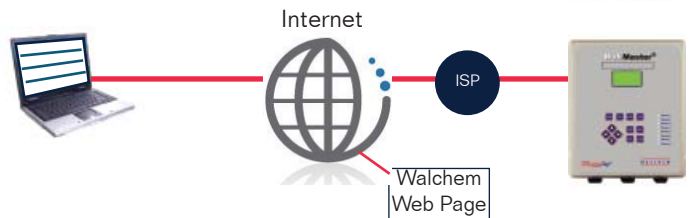
» USB Plug and Play

For local monitoring and reconfiguration of your WebMaster® via LapTop or dedicated on-site PC.



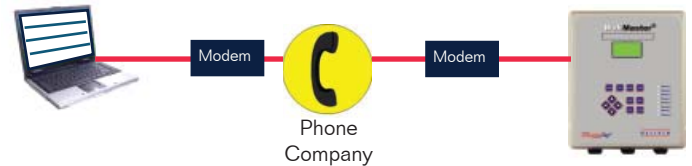
» ShoulderTap® Internet Communications

For monitoring and reconfiguration of your WebMaster® remotely via the Internet (requires landline or cellular modem card option).



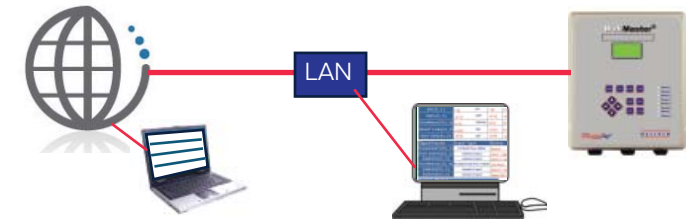
» DirectTap Modem-to-Modem

For remote monitoring and reconfiguration of your WebMaster® using traditional modem-to-modem communications (requires landline modem card option).



» Ethernet

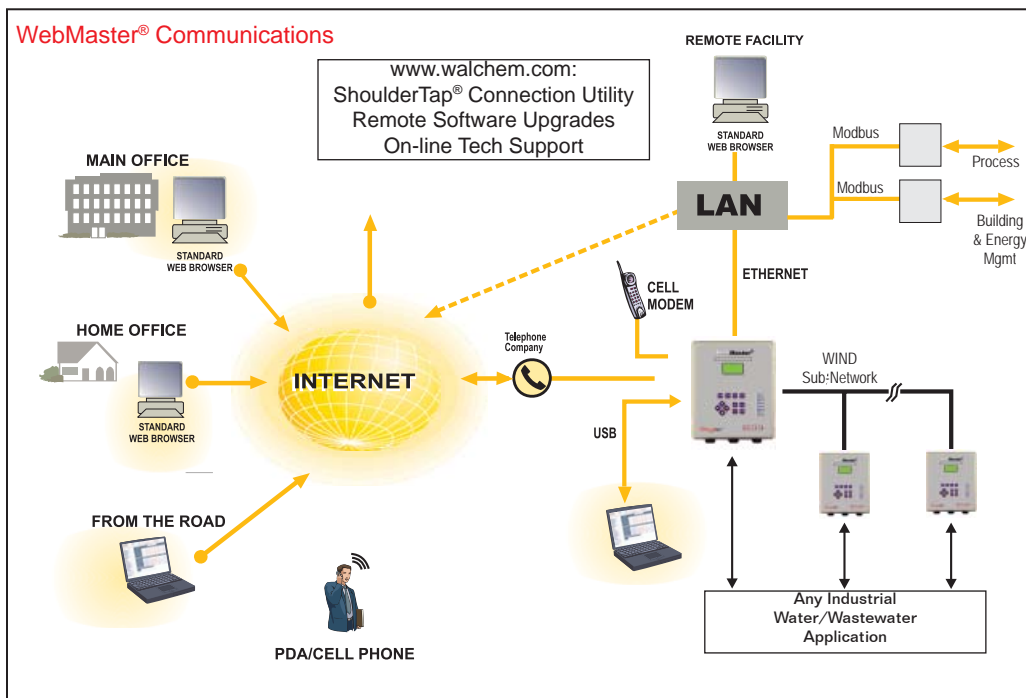
For monitoring and reconfiguration of your WebMaster® via Local Area Network or remotely via the Internet.



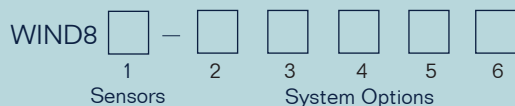
Ethernet Networking

By using the on-site Local Area Network (LAN) or by connecting the WebMasters® together via Ethernet, you can access all of the WebMasters® on a network from a single phone line or IP address. The "Master" WebMaster® automatically detects the other WebMasters® and serves as a window to the "slaves" on the network, greatly reducing the cost and time associated with device configuration and running phone lines to each device. DHCP is supported to enable WebMaster® to automatically obtain an IP address from the LAN.

Modbus TCP/IP (Ethernet) is available to seamlessly connect to building energy management, distributed control, process management and SCADA systems.



ORDER INFORMATION

**1 SENSOR INPUTS REQUIRED**

- 1 = One sensor input 3 = Three sensor inputs
2 = Two sensor inputs 4 = Four sensor inputs

2 VOLTAGE CODE

- 0 = Prewired w/USA power cord, 0 powered relays, 8 dry contact relays
1 = Prewired w/USA cords, 7 powered relays, 1 dry contact relay
2 = Prewired w/USA cords, 8 powered relays
3 = Prewired w/USA cords, 4 powered relays, 4 dry contact relays
4 = Hardwired, 0 powered relays, 8 dry contact relays
5 = Hardwired, 8 powered relays
6 = Hardwired, 7 powered relays, 1 dry contact relay
7 = Hardwired, 4 powered relays, 4 dry contact relays
E = Prewired w/ USA power cord, 4 powered relays, 4 opto-isolated (pulse) relays
F = Prewired w/ USA cords, 4 dry contact relays, 4 opto-isolated (pulse) relays
G = Hardwired, 4 powered relays, 4 opto-isolated (pulse) relays
H = Hardwired, 4 dry contact relays, 4 opto-isolated (pulse) relays

3 ANALOG OUTPUTS

- N = No electrode
1 = One 4-20 mA output board
2 = Two 4-20 mA output boards
3 = Three 4-20 mA output boards
4 = Four 4-20 mA output boards

4 INPUT OPTIONS

- N = None
A = Analog Input board (8 inputs)
D = Digital Input board (6 inputs)
B = Both Analog and Digital Input boards

5 DIGITAL COMMS HARDWARE (USB & ETHERNET STANDARD)

- N = No additional communications
M = Modem card
G = Cellular Modem card (GPRS, North America)
F = Cellular Modem card (GPRS, rest of world)

6 DIGITAL COMMS SOFTWARE

- N = No additional communications
1 = Ethernet networking (Master capability)
2 = Modbus TCP
3 = Ethernet networking (Master capability + Modbus TCP)

**Mechanical (Enclosure)**

- Material: Polycarbonate
NEMA Rating: NEMA 4X (IP65)
Operating Ambient Temp: 0 to 49°C (32 to 120°F)
Weight: 5.4 kg (12 lbs)

Electrical**Inputs**

- Input Power: 100-240VAC ±10%
12A, 50/60Hz
Analog Input Signals: 4-20 mA, 2 or 3-wire
(8 optional) Internally powered by 24VDC
25 ohm input resistance
1000 ohm maximum load
Digital Input Signals
(6 standard, 6 optional): Isolated dry contact
0-300 Hz
1.5 msec minimum width

Outputs

- Mechanical relays(8 standard): 115VAC, 10 Amp resistive, 1/8hp
230VAC, 6 Amp resistive, 1/8hp

May be dry contact or powered by line voltage
R1-R4 fused together, R5-R8 fused together, current not to exceed 5.5 A
Only powered relays are fused

Analog (4-20mA) Outputs up to 4 optional: Isolated, 500 ohm maximum resistive load, internally powered

AGENCY CERTIFICATIONS

- UL ANSI/UL 61010-1:2004, 2nd Edition*
CAN/CSA C22,2 No.61010-1:2004 2nd Edition*
CE Safety EN 61010-1 2nd Edition (2001)*
CE EMC EN 61326 :1998 Annex A*

Note: For EN61000-4-6,-3 the controller met performance criteria B.

*Class A equipment: Equipment suitable for use in establishments other than domestic, and those directly connected to a low voltage (100-240 VAC) power supply network which supplies buildings used for domestic purposes.

ABOUT US

Walchem integrates its advanced sensing, instrumentation, fluid pumping 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.



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