

WEBS-AX™ System Architecture

With EXCEL 5000® LON Controllers

Honeywell WEBS-AX™ offers an affordable integrated open communications building control system. WEBS-AX is a family of state-of-the-art, Web-enabled building information solutions that provide you with amazing flexibility. Powered by the revolutionary Niagara™ Framework, the entire system is Internet-based, so all you need to access the system is a standard Internet browser. With the WEBS-AX open integrated system, you'll have the versatility to choose a collection of best-of-class products for your building needs using open communication protocols of LonWorks®, BACnet®, Modbus®, or OPC and integrate them into a single user interface.

More Efficient
Honeywell WEBS-AX allows you to get the most from your people and equipment.

Save Money — There are no additional workstations to buy. With the Web-enabled user interface, you can access the system via a standard Internet browser.

Increase Flexibility — Communicate to LonWorks, BACnet, BACnet MSTP, Modbus, and third-party protocols and integrate systems at the controller level. No hardware gateways are required.

Save Energy — Coordinate all energy-consuming loads in your building, from HVAC and lighting systems to individual copy machines, to save energy and extend the lifetime of valuable equipment. Using the multi-report functionality of the WEBS-AX Energy Suite, you can analyze your energy usage to identify key usage trends and create usage strategies to reduce energy costs and improve your enterprise.

Increase Productivity — Provide comfortable, efficient, productive surroundings for your most valuable assets — your employees — when you create energy-efficient working environments that utilize energy only when and where it is needed.

Eliminate Needless Work — Manage activities and information in the most efficient manner, across all subsystems, from one workstation.

More Secure
Improve the security of your building using the WEBS Security System. WEBS security provides a full featured access control and security solution. The scalability of the WEBS security system allows you to install what you need today and add-on in the future. WEBS security system includes "thin client" software and may stand alone, or be integrated into a total building solution using the power of Niagara™ framework.



Programmable Plant Control

Excel 50 Controller 74-3029 Specification Data

I/O Point Capacity: 8
Analog Inputs: 0 to 10 Vdc, 0 to 20 mA (w 499 Ω resistor), NTC 20k ohm
Analog Outputs: 4, 0 to 10 Vdc
Digital Inputs: 4, 3 of 4 fast totalizer
Digital Outputs: 6, Triac, 800 mA (all 6 Triacs max 2.4A)

Same Power of the Excel 500
• Similar operator interface
• Same software
• Same BUS communication
• Fully programmable using Excel CARE

Model Type: XLS0 UPC—without operator interface, XLS0 UMM/IPC—with operator interface

I/O Point Capacity: 22 physical points, Up to 256 pseudo points, 46 network variables supported on the LonWorks network
Application Module: Flash-EPRM, Engineering Tool: Excel CARE

Excel 800 Controller 63-1326 Specification Data

Input/Output Modules

Analog Input Panel Bus – XFB21A LonWorks Bus – XFL821A Terminal Socket – XS821-22

Module Type: Analog input
No. of Outputs: 8
Type of Outputs: 0 to 11 volts +/- 1 mA each, Configurable safety position
No. of LEDs: 8

Panel Bus – XFR822A LonWorks Bus – XFLR822A Terminal Socket – XS821-22

Module Type: Analog output
No. of Outputs: 8
Type of Inputs: 0 to 11 volts without pull-up resistor (0/4) to 20 mA, NTC20k Ω, -58° to 302° F, -50° to 150° C, NTC10k Ω, -22° to 266° F, -30° to 130° C, PT1000 .2, -58° to 302° F, -50° to 150° C, PT1000 .2, 32° to 752° F, 0° to 400° C, PT3000, -58° to 302° F, -50° to 150° C, BALCO500, -22° to 266° F, -30° to 130° C

Manual Override: (Auto, 0...100%)
No. of LED: 8

Binary Input Panel Bus – XFB23A LonWorks Bus – XFL823A Terminal Socket – XS823

Module Type: Binary input
No. of Inputs: 12
No. of LEDs: 12
Inputs: Totalizer for up to 20 Hz

XI582 Portable Mounted Operator Interface 74-3551 Specification Data

• Reads English language point information resident in all Plant Controllers
• 8 keys, menu driven
• Access global point information
• Intuitive and easy to use

6 lines by 32 characters per line; Accesses controller status, trend information, time programs, setpoints and alarms

Analog Output Panel Bus – XFB22A LonWorks Bus – XFLR822A Terminal Socket – XS821-22

Module Type: Analog output
No. of Outputs: 8
Type of Outputs: 0 to 11 volts +/- 1 mA each, Configurable safety position
Manual Override: (Auto, 0...100%)
No. of LED: 8

Relay Output Panel Bus – XFR824A LonWorks Bus – XFLR824A Terminal Socket – XS824-25

Module Type: Relay output
No. of Outputs: 6
Relay output: Total 12A, no capacitive (change over contact) load; P>50 mW
No. of LEDs: 6

Panel Bus – XFR824A LonWorks Bus – XFLR824A Terminal Socket – XS824-25

Module Type: Floating output
No. of Outputs: 3
Type of Outputs: Relay output, Normally Open, or Normally Closed contact
Manual Override: 0
Switches: 0
No. of LEDs: 6

Smart I/O Modules 74-3671 Specification Data

XFC3A06001 XFC1A06001

Terminals: Fixed permanent
Digital Inputs: 4
Digital Outputs: 4 (20k NTC)
Analog Outputs: 2 (VDC)

XFC3D06001 XFC1D06001

Terminals: Removable
Manual Override: 6
Number of LEDs: 10
Digital Inputs: 4
Digital Outputs: 4 (20k NTC)
Analog Outputs: 2 (VDC)

Compact I/O Modules

Digital Input XIO-1001 XIO-401

Number of Inputs: 10
Number of Inputs: 4

Digital Output XIO-400

Number of Outputs: 4
Type of Outputs: 4 isolated changeover contacts

Analog Input XIO-8AI

Number of Inputs: 8
Type of Inputs: 40kΩ to 4MΩ selectable via LNS plug-in

XIO-4NTC

Number of Inputs: 4
Type of Inputs: 20k NTC

XIO-4FT1000

Number of Inputs: 4
Type of Inputs: Platinum 1000

Analog Output XIO-4AO

Number of Outputs: 4
Type of Outputs: 0-10Vdc @ 5mA

Accessories XIO-10HUB

Type of Accessory: Hub expander

Programmable Unitary Control

Unitary Controller PUL6438S Programmable Unitary Controller

- Extended Temperature Rated -40° F (-40° C) to 150° F (65.5° C)
- Digital Inputs: 4
- Digital Outputs: 4
- Analog Outputs: 2 (VDC)
- Control — accurate control for space control applications; AIA Control reduces overshoot and ensures customer comfort is achieved
- Removable terminal strips, color-coded input/output labels, internal real-time clock, internal DC power supply

Inputs

- 6 universal inputs
- 4 digital inputs
- Sylik™ Bus

Outputs

- 3 analog outputs
- 8 digital outputs

VAV Controller PVL6436AS Programmable Variable Air Volume Controller

- Integrated actuator
- Integrated on-board pressure sensor
- Adaptive Integral Algorithm Control — accurate control for space control applications; AIA Control reduces overshoot and ensures customer comfort is achieved
- Removable terminal strips, color-coded input/output labels, internal real-time clock, internal DC power supply

Inputs

- 6 universal inputs
- 4 digital inputs
- Integrated on board pressure sensor
- Sylik™ Bus

Outputs

- 3 analog outputs
- 6 digital outputs
- Integrated actuator

VAV PVL6438NS Programmable Variable Air Volume Controller

- Integrated on-board pressure sensor
- Adaptive Integral Algorithm Control — accurate control for space control applications; AIA Control reduces overshoot and ensures customer comfort is achieved
- Removable terminal strips, color-coded input/output labels, internal real-time clock, internal DC power supply

Inputs

- 6 universal inputs
- 4 digital inputs
- Integrated on board pressure sensor
- Sylik™ Bus

Outputs

- 3 analog outputs
- 8 digital outputs

Zone Control

Constant Volume AHU Controller W7750 74-2956 Specification Data

- Proven PID space temperature control algorithm
- Integral or packaged economizer control
- Separate intelligent recovery rates for heating and cooling
- Demand limit control temperature setpoint in energy saving direction

W7750A Constant Volume AHU Controller

Inputs

- 1 T7770 wall module
- 1 resistive input
- 2 dry contact digital inputs
- 1 bypass button input

Outputs

- 6 relay outputs
- 1 LED output
- Integrated actuator

W7750B/C Constant Volume AHU Controller

Inputs

- 1 T7770 wall module
- 4 resistive inputs
- 2 voltage inputs
- 4 dry contact digital inputs
- 1 bypass button input

Outputs

- 3 analog outputs
- 6 digital outputs
- Integrated actuator

W7751H

Inputs

- 1 T7770 wall module
- 1 resistive input
- 1 voltage input
- 1 bypass button input
- Integrated actuator

Outputs

- 4 triac outputs
- 1 LED output

W7751B, D, F

Expanded input/output capacity, actuator not included

Inputs

- 1 T7770 wall module input
- 2 resistive inputs
- 1 voltage input
- 3 dry contact inputs
- 1 bypass button input

Outputs

- 8 triac outputs
- 1 LED output

Automation and Control Solutions

In the US:
Honeywell
1985 Douglas Drive North
Golden Valley, MN 55422-3992

In Canada:
Honeywell Limited
35 Dynamic Drive
Toronto, Ontario M1V 4Z9
customer.honeywell.com

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Powered by niagara™ FRAMEWORK™

Honeywell

All devices programmed in CARE.

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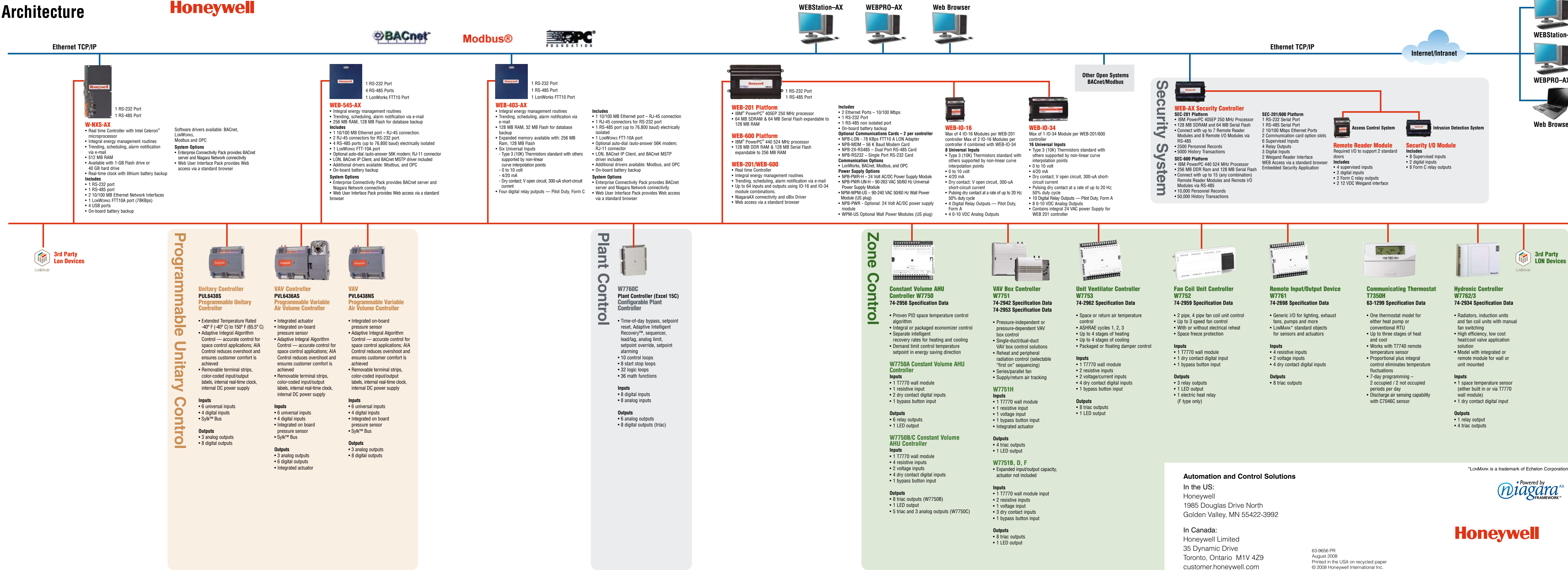
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3rd Party Lon Devices

Programmable Unitary Control



Unitary Controller PUL6438S
Programmable Unitary Controller

- Extended Temperature Rated -40° F (-40° C) to 150° F (65.5° C)
- Adaptive Integral Algorithm Control — accurate control for space control applications; AIA Control reduces overshoot and ensures customer comfort is achieved
- Removable terminal strips, color-coded input/output labels, internal real-time clock, internal DC power supply

Inputs

- 6 universal inputs
- 4 digital inputs
- Sylik™ Bus

Outputs

- 3 analog outputs
- 8 digital outputs



VAV Controller PVL6436AS
Programmable Variable Air Volume Controller

- Integrated actuator
- Integrated on-board pressure sensor
- Adaptive Integral Algorithm Control — accurate control for space control applications; AIA Control reduces overshoot and ensures customer comfort is achieved
- Removable terminal strips, color-coded input/output labels, internal real-time clock, internal DC power supply

Inputs

- 6 universal inputs
- 4 digital inputs
- Integrated on board pressure sensor
- Sylik™ Bus

Outputs

- 3 analog outputs
- 6 digital outputs
- Integrated actuator



VAV PVL6438NS
Programmable Variable Air Volume Controller

- Integrated on-board pressure sensor
- Adaptive Integral Algorithm Control — accurate control for space control applications; AIA Control reduces overshoot and ensures customer comfort is achieved
- Removable terminal strips, color-coded input/output labels, internal real-time clock, internal DC power supply

Inputs

- 6 universal inputs
- 4 digital inputs
- Integrated on board pressure sensor
- Sylik™ Bus

Outputs

- 3 analog outputs
- 8 digital outputs

Plant Control



W7760C Plant Controller (Excel 15C) Configurable Plant Controller

- Time-of-day bypass, setpoint reset, Adaptive Intelligent Recovery™, sequencer, lead/lag, analog limit, Demand limit control temperature setpoint override, setpoint alarming
- 10 control loops
- 8 start stop loops
- 32 logic loops
- 36 math functions

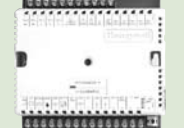
Inputs

- 8 digital inputs
- 8 analog inputs

Outputs

- 6 analog outputs
- 8 digital outputs (triac)

Zone Control



Constant Volume AHU Controller W7750
74-2956 Specification Data

- Proven PID space temperature control algorithm
- Integral or packaged economizer control
- Separate intelligent recovery rates for heating and cooling
- Demand limit control temperature setpoint in energy saving direction

W7750A Constant Volume AHU Controller

Inputs

- 1 T7770 wall module
- 1 resistive input
- 2 dry contact digital inputs
- 1 bypass button input

Outputs

- 6 relay outputs
- 1 LED output

W7750B/C Constant Volume AHU Controller

Inputs

- 1 T7770 wall module
- 4 resistive inputs
- 2 voltage inputs
- 4 dry contact digital inputs
- 1 bypass button input

Outputs

- 8 triac outputs (W7750B)
- 1 LED output
- 5 triac and 3 analog outputs (W7750C)



VAV Box Controller W7751
74-2942 Specification Data
74-2953 Specification Data

- Pressure-independent or pressure-dependent VAV box control
- Single-duct/dual-duct VAV box control solutions
- Reheat and peripheral radiation control (selectable "first on" sequencing)
- Series/parallel fan
- Supply/return air tracking

W7751H

Inputs

- 1 T7770 wall module
- 1 resistive input
- 1 voltage input
- 1 bypass button input
- Integrated actuator

Outputs

- 4 triac outputs
- 1 LED output



Unit Ventilator Controller W7753
74-2962 Specification Data

- Space or return air temperature control
- ASHRAE cycles 1, 2, 3
- Up to 4 stages of heating
- Up to 4 stages of cooling
- Packaged or floating damper control

Inputs

- 1 T7770 wall module
- 2 resistive inputs
- 4 dry contact digital inputs
- 1 bypass button input

Outputs

- 3 relay outputs
- 8 triac outputs
- 1 LED output



Fan Coil Unit Controller W7752
74-2959 Specification Data

- 2 pipe, 4 pipe fan coil unit control
- Up to 3 speed fan control
- With or without electrical reheat
- Space freeze protection

Inputs

- 1 T7770 wall module
- 1 dry contact digital input
- 1 bypass button input

Outputs

- 3 relay outputs
- 1 LED output
- 1 electric heat relay (F type only)



Remote Input/Output Device W7761
74-2698 Specification Data

- Generic I/O for lighting, exhaust fans, pumps and more
- LonMax™ standard objects for sensors and actuators

Inputs

- 4 resistive inputs
- 2 voltage inputs
- 4 dry contact digital inputs

Outputs

- 8 triac outputs



Communicating Thermostat T7350H
63-1299 Specification Data

- One thermostat model for either heat pump or conventional RTU
- Up to three stages of heat and cool
- Works with T7740 remote temperature sensor
- Proportional plus integral control eliminates temperature fluctuations
- 7-day programming – 2 occupied / 2 not occupied periods per day
- Discharge air sensing capability with C7046C sensor

Inputs

- 1 space temperature sensor (either built in or via T7770 wall module)
- 1 dry contact digital input

Outputs

- 1 relay output
- 4 triac outputs



Automation and Control Solutions

In the US:
Honeywell
1985 Douglas Drive North
Golden Valley, MN 55422-3992

In Canada:
Honeywell Limited
35 Dynamic Drive
Toronto, Ontario M1V 4Z9
customer.honeywell.com

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