WEBs–AX[™] System Integration



Software Platform

- WEBs-AX Supervisor
- WEBs—AX Enterprise Security

HTTP, BACnet, oBIX, SNMP, XML, Fox

- WEBs-AX Energy Analytics
- WEBs-AX Tenant Billing

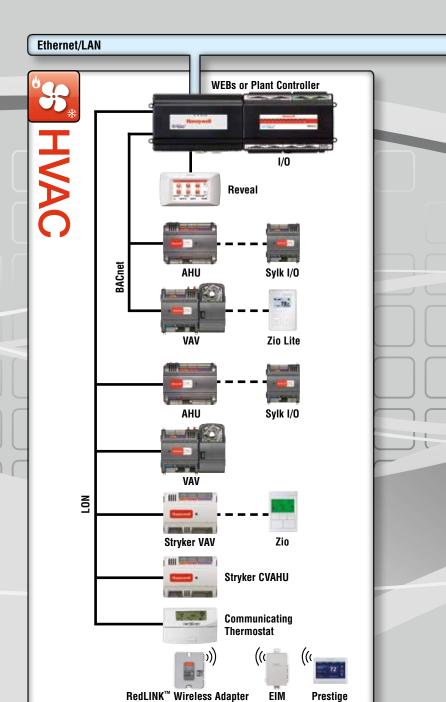




WEBs Controller

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The core of Honeywell Buildings offering is the WEBs-AX automation controllers. Built on the Niagara^{AX} framework, WEBs-AX controllers provide an open communication solution for web-enabled buildings.

WEBs-AX Security can work as a standalone system or integrate easily with other WEBs-AX products as well as third-party devices for information-sharing on the enterprise level.

Remote Readers

Access Control Time & Attendance



WEBs-AX Integrated Video Drivers provide an open video framework designed to integrate with diverse manufacturer IP and analog devices and protocols.



An enterprise energy monitoring application designed to help manage energy in one or more facilities. WEBs-AX Energy Analytics is a software solution that provides real-time connectivity to metering technologies and other third-party systems and devices using a Web browser.

Third Party Integration

The WEBs-AX open systems allows for integration to third party devices via BACnet®, LonWorks®, Modbus®, and oBIX.

Honeywell

HVAC Field Devices

Select from a full range of Honeywell components for a completely interoperable system.

Communicating and Fan Coil **Commercial Thermostats**

T7350H, SuitePro, TB76













H Series and SXB Series













Control Ball Valves, Globe Valves, Cartridge Globe Valves, Cartridge Cage Valves, Fan Coil Valves, Butterfly Valves





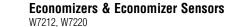




















Fire/Smoke Actuators

































WEBs–AX[™] System Options

Site Supervision

| | Product | Part Number | Operating System ^b | Device Limit | Open License Available | Description |
|-----------|--|-----------------|--|--|---------------------------|--|
| ** | WEBStation-AX Small Building Supervisor | WEB-S-AX-3-0 | Windows | 3 | Yes | AX Supervisor software; Includes Niagara Historical Database and Workplace AX. Includes oBIX client/server driver for |
| HVAC | Building Supervisor | W-S-AX-LNX3-0 | Linux | 3 | Yes | be added to the Small Building Supervisor except database drivers. |
| 5 | WEBStation-AX Medium | WEB-S-AX-100-0 | Windows | 100 | Yes | AX Supervisor software; Includes Niagara Historical Database |
| | Building Supervisor | W-S-AX-LNX100-0 | Linux | 100 | Yes | connecting to Niagara based controllers only. |
| | WEDCtotion AV | WEB-S-AX-UNL-0 | Windows | None | Yes | AX Supervisor software; Includes Niagara Historical Database |
| | WEDSIALIOII-AX | W-S-AX-LNXUNL-0 | Linux | None | Yes | connecting to Niagara based controllers only. |
| | WEBPro-AX | WEB-S-AX-W | Windows 32/64-Bit | None | No | Stand-alone copy of Workplace AX. Supports both Supervisor and Niagara devices. Additional end user copy of WEBPro-AX NOTE: Use WEB-U-AX to upgrade. |
| | SoftJACE | W-SJ-1M-AX | Operating Systemb Device Limit Available Description Windows 3 Yes AX Supervisor software; Includes Niagara H and Workplace AX. Includes OBIX client/serv connecting to Niagara based controllers onlibe added to the Small Building Supervisor of drivers. Windows 100 Yes AX Supervisor software; Includes Niagara H and Workplace AX. Includes OBIX client / ser connecting to Niagara based controllers onlived with the service of the servi | AX SoftWEB software package with 10 Million resources count. Standard features include Niagara station and Web User Interface. Standard drivers include oBIX client / server, Niagara Network (Fox) Client / Server. | | |
| | Alarm Console | W-ALARM-CONSL | Windows 32/64-Bit | N/A | No | The Alarm Console client. No separate server is required. Supports both Supervisor and Niagara device alarm monitoring. |

| SECURITY | Security Small Building Supervisor w/ MySQL and MS SQL | SEC-H-ENT-6 | Windows 32/64-Bit | 6 | Yes | enterprise security application with 32 reader license, Security AX Small Building Supervisor bundled part. Includes enterprise security application with 32 reader license, Security AX Supervisor, and both MySQL and MS SQL Server database drivers. Supervisor limited to security controllers and drivers only and can not be licensed for BAS Controller connections or drivers. Small Building Supervisor limited to max of 6 security controller connections and 64 readers. Includes OBIX client/server driver for connecting to Niagara based controllers only. |
|----------|--|---------------|-------------------|-----|-----|---|
| TY | Security Supervisor w/ MySQL and MS SQL | SEC-H-ENT-100 | Windows 32/64-Bit | 100 | Yes | Security AX Supervisor bundled part. Includes enterprise security application with 32 reader license, Security AX Supervisor, and both MySQL and MS SQL Server database drivers. Supervisor limited to security controllers and drivers only and cannot be licensed for BAS controller connections or drivers. Platform for systems up to 100 security controllers. Includes OBIX client/server driver for connecting to Niagara based controllers only. |
| | Security Large System Supervisor w/ MySQL and MS SQL | SEC-H-ENT-250 | Windows 32/64-Bit | 250 | Yes | Security AX Supervisor bundled part. Includes enterprise security application with 32 reader license, Security AX Supervisor, and both MySQL and MS SQL Server database drivers. Supervisor limited to security controllers and drivers only and cannot be licensed for BAS controller connections or drivers. Platform for systems up to 250 security controllers. Includes OBIX client/server driver for connecting to Niagara based controllers only. |

Applications

| 4 | Product | Part Number | Device Limit | Description |
|-------|------------------|----------------|--------------|--|
| E | | WEB-TBS-AX | 10 Tenants | WEBs Tenant Billing Service (TBS), includes license for 10 tenants. Must be installed on WEBStation-AX |
| IERGY | | WEB-TBS-AX-10 | 10 Tenants | Adds 10 tenants to a TBS License |
| 45 | Tenant Billing | WEB-TBS-AX-25 | 25 Tenants | Adds 25 tenants to a TBS License |
| | | WEB-TBS-AX-50 | 50 Tenants | Adds 50 tenants to a TBS License |
| | | WEB-TBS-AX-100 | 100 Tenants | Adds 100 tenants to a TBS License |
| | France Analytica | WES-STA-AX | 1 Controller | Allows multiple points within 1 controller to be retrieved and used within energy analytics |
| | Energy Analytics | WES-PNT-AX | 1 Point | Allows 1 point from a single meter or utility company that provides their information over IP to be retrieved and used within energy analytics $\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left(\frac{1}$ |

Driver

| | Driver | Connectivity | Open Protocol |
|-------------|---------------|--------------|------------------|
| _ | Assure ID* | | |
| VER Station | BACnet | | Yes |
| D | DB2 | | Yes |
| 2 | File (CSV) | | Yes |
| <u>יב</u> | HTTPS (SSL) | | Yes |
| 2 | LON | | Yes |
| | MODBUS | | Yes |
| | MSSQL | | Yes |
| | MySQL | Ethernet | Yes |
| | Niagara (Fox) | | |
| | OBIX (XML) | | Yes |
| | OPC | | Yes |
| | OpenADR | | Yes |
| | Oracle | | Yes |
| | SNMP | | Yes |
| | Video | | |
| | RedLINK™ | | |

*Available as an option for Enterprise Security

| | Driver | Connectivity | Protocol |
|------------|-------------------|---------------------------------|----------|
| _ | American Auto | Serial | |
| ¥ER | Andover AC-256 | Serial | |
| D | Andover (INF) | Serial | |
| 2 | BACnet | Ethernet/Serial | Yes |
| <u> </u> | Carrier (CCN) | Serial | |
| 5 | Flex Serial | Serial | |
| Controller | GPRS | Wireless | Yes |
| • | Honeywell (C-bus) | Serial | |
| | HTTPS (SSL) | Ethernet | Yes |
| | LON | Ethernet/FTT-10 Twisted Pair | Yes |
| | McQuay (OPL) | Serial | |
| | MODBUS | Ethernet/Serial | Yes |
| | OPC | Ethernet | Yes |
| | OpenADR | Ethernet | Yes |
| | Security Comm.* | Serial | Yes |
| | SMS | Ethernet | Yes |
| | SNMP | Ethernet | Yes |
| | Video | Ethernet | |
| | Z-Wave | Wireless | Yes |
| | RedLINK™ | Wireless | |
| | | | |

*Available as an option for Security Controllers

NOTE: A list of available drivers is posted on the Honeywell Buildings Forum (http://buildingsforum.honeywell.com)

Controllers

| | Platform | Memory | 1/0 | Open License | Communication Ports | Description |
|---|-----------|--------------------------------|--|-----------------|--|---|
| - | AX3-PPC | 256 MB, 128 MB Flash | Din 34 | 0 | 2 10/100 Mb Ethernet ports, NDIO Port and 2 communication card option slots, 2 serial (RS232, RS485) | The AX3-PPC Plant Controller standard features include Niagara station and Web User Interface. Standard drivers include oBIX client/server and Niagara Network (Fox) Client / Server. Includes Modbus, BACnet and LON drivers limited to a total of 5 devices or 150 points per controller. Requires AX 3.8 or later. |
| | WEB-201 | 64/128 MB, 64 MB Flash | Din 16/34 | 0 | 2 10/100 Mb Ethernet ports, NDIO Port and 2 communication card option slots, 2 serial (RS232, RS485) | The WEB-201 standard features include Niagara station and Web User Interface. Standard drivers include oBIX client/server and Niagara Network (Fox) client/server. |
| | WEB-300E | 256 MB, 128 MB Flash | Din 16/34 | 0 | 2 10/100 Mb Ethernet ports, NDIO Port and 2 communication card option slots, 2 serial (RS232, RS485) | The WEB-300E standard features include Niagara station and Web User Interface. Standard drivers include oBIX client/server and Niagara Network (Fox) client/server. Requires AX release 3.7.106 or higher. |
| | WEB-600 | 128/256 MB, 128 MB Flash | Din 16/34 | 0 | 2 10/100 Mb Ethernet ports, NDIO Port and 2 communication card option slots, 1 USB, 2 serial (RS232, RS485) | The WEB-600 standard features include Niagara station and Web User Interface. Standard drivers include oBIX client/server and Niagara Network (Fox) client/server. Requires AX release 3.2 or higher. |
| | WEB-600E | 128/256 MB, 128 MB Flash | Din 16/34 | 0 | 2 10/100 Mb Ethernet ports, NDIO Port and 2 communication card option slots, 2 serial (RS232, RS485) | The WEB-600E standard features include Niagara station and Web User Interface. Standard drivers include oBIX client/server and Niagara Network (Fox) client/server. Requires AX release 3.6 or higher. |
| - | WEB-603 | 128/256 MB, 128 MB Flash | 10 | 0 | 2 10/100 Mb Ethernet ports, 1 communication card option slot, 1 LON, 2 serial (RS232, RS485) | The WEB-603 standard features include 6 universal inputs (analog or contact/pulse input), 4 form C (SPDT relay outputs, Niagara Station and Web User Interface. Standard drivers include LonWorks, oBIX client/ server and Niagara Network (Fox) client/server. Requires AX release 3.6.47 or higher and Niagara R2 version r2.301.535 or higher. |
| | WEB-645 | 256 MB, 128 MB Flash | - | 0 | 1 10/100 Mb Ethernet port, 1 LON, 6 serial (2 RS232,4 RS485) | The WEB-545 standard features include BACNet IP Client, BACNet MS/TP and oBIX client/server. Includes steel, wall-mountable enclosure with 120 V power supply. Requires release 3.1 or higher. |
| | WEB-700 | 1 GB, 1 GB Flash | Ext.16 | 0 | 2 Gigabit Ethernet ports, 2 standard communication card slots, 2 USB, 2 serial (RS232, RS485) | The WEB-700 standard features include Niagara station and Web User Interface. Standard drivers include oBIX client/server and Niagara Network (Fox) client/server. Requires AX Release 3.5 or higher. |
| | SEC-H-201 | 128 MB RAM/, 64 MB Flash | 6 Supervised Inputs, 4 Form C Relay Outputs, and 3 Digital Inputs. | • | Connections for 2 Card Readers, includes 2 10/100 Mb Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port, and 2 communication card option slots | Includes WEBs Security Appliance, Web UI and the following standard drivers: oBIX client/server, Niagara Network (Fox) client/server and BACNet IP Server. Server and BACNet IP Server. Supports up to 16 card readers, 5,000 personnel records and 10,000 transactional history records. |
| - Programe - Control of the Control | SEC-H-602 | 256 MB, 128 MB Flash | 6 Supervised Inputs, 4 Form C Relay Outputs, and 3 Digital Inputs. | • | Connections for 2 Card Readers, includes 2 10/100 Mb Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port, and 2 communication card option slots | Includes WEBs Security Appliance, Web UI and the following standard drivers: oBIX client/server, Niagara Network (Fox) client/server and BACNet IP Server. Server and BACNet IP Server. Supports two card readers with a maximum of 32 readers, 20,000 personnel records, 7,500 transactional history records |
| | SEC-H-600 | 256 MB, 128 MB Flash | 6 Supervised Inputs, 4 Form C Relay Outputs, and 3 Digital Inputs. | • | Connections for 2 Card Readers, includes 2 10/100 Mb Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port, and 2 communication card option slots | Includes WEBs Security Appliance, Web UI and the following standard drivers: oBIX client/server, Niagara Network (Fox) client/server and BACNet IP Server. Server and BACNet IP Server. Supports up to 32 card readers, 20,000 personnel records and 50,000 transactional history records and security/BAS from single controller. |
| | SEC-H-616 | 256 MB, 128 MB Flash | 6 Supervised Inputs, 4 Form C Relay Outputs, and 3 Digital Inputs. | • | Connections for 2 Card Readers, includes 2 10/100 Mb Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port, and 2 communication card option slots | Includes WEBs Security Appliance, Web UI and the following standard drivers: oBIX client/server, Niagara Network (Fox) client/server and BACNet IP Server. Server and BACNet IP Server. Supports 16 card readers with a maximum of 32 readers, 20,000 personnel records, 7,500 transactional history records. Supports optional BAS drivers for integration to building controls. |

Accessories

| Product Options | Part Number | Twisted Pair | Description |
|------------------------------|------------------------|--------------|--|
| Reveal – small display | LCD-CT043A100 | Serial | Color LCD Touchscreen |
| (color & grayscale) | LCD-GT043A100 | Serial | Grayscale LCD Touchscreen |
| | I0-16-H | Serial | Includes 8 Universal Inputs, 4 Form A Relay Outputs, and 4 0-10 VDC Analog Outputs. 16 Point I/O Module |
| | I0-34-H | Serial | Includes 16 Universal Inputs, 10 Form A Relay Outputs, and 8 0-10 VDC Analog Outputs. This IO-34 also contains an on-board 24V AC/DC power supply. |
| | IO-16-REM-H | Serial | Includes 8 Universal Inputs, 4 Form A Relay Outputs, and 4 0-10 VDC Analog Outputs. |
| (10/ 04 points), remote (10) | SEC-H-RIO | Serial | Security Remote I/O |
| | SEC-H-R2R | Serial | Security Remote Reader |
| | NPB-2X-RS485 | Serial | RS 485 Card |
| | NPB-GPRS-W-H | Wireless | GPRS Modem Kit |
| | NPB-LON | Twisted Pair | LON Card |
| | NPB-MDM | Twisted Pair | Modem Card |
| Ontion Cordo | LCD-CT043A100 Serial | Serial | RS 232 Card |
| Option Gards | NPB-ZWAVE | Wireless | Z-wave Card |
| | NPB-SRAM | N/A | SRAM Battery-less Card |
| | NPB-WIFI-7 | Wireless | Wifi Card |
| | TB-VWG-APP-1014 | Wireless | Wireless Zigbee Card |
| | NPB-2X-REDLINK | Serial | Honeywell Redlink Card |

WEBs–AX[™] System HVAC Controllers Options

Programmable Field Controllers

| | Controller Model | Communication Protocol ^a | Programmable Type | UI | DI | AO | DO | Velocity Pressure Sensor (Microbridge) | Series 60 Floating Actuato |
|--|---------------------|--|----------------------|----------------|----|----------|----|---|-------------------------------|
| | PUB6438S | BACnet MS/TP | Unitary | 6 | 4 | 3 | 8 | NO | NO |
| | PUL6438S | LonWorks | Unitary | 6 | 4 | 3 | 8 | NO | NO |
| - | PUB6438SR | BACnet MS/TP | Unitary | 6 | 4 | 3 | 8c | NO | NO |
| All Property and P | PUL6438SR | LonWorks | Unitary | 6 | 4 | 3 | 8c | NO | NO NO |
| 3 111 | PVB6438NS | BACnet MS/TP | VAV | 6 | 4 | 3 | 8 | YES | NO |
| | PVL6438NS | LonWorks | VAV | 6 | 4 | 3 | 8 | YES | NO |
| | PVB6436AS | BACnet MS/TP | VAV | 6 | 4 | 3 | 6 | YES | YES |
| | PVL6436AS | LonWorks | VAV | 6 | 4 | 3 | 6 | YES | YES |
| | PUL1012S | LonWorks | Unitary | 1 ^b | 0 | 1 | 2 | NO | NO |
| 7 | PUB1012S | BACnet MS/TP | Unitary | 1 | U | <u> </u> | | NU | INU |
| | PUL4024S | LonWorks | Unitary | 4 ^b | 0 | 2 | 4 | NO | NO |
| | PUB4024S | BACnet MS/TP | Officery | 7 | | | 7 | INO | NO |
| ALC: NO. | PVL4024NS | LonWorks | VAV | 4 ^b | 0 | 2 | 4 | YES | NO |
| | PVB4024NS | BACnet MS/TP | VAV | 7 | | | 7 | 110 | NO |
| | PVL0000AS | LonWorks | VAV | 0 | 0 | 0 | | YES | YES |
| The same of the same of | PVB0000AS | BACnet MS/TP | VAV | 0 | 0 | " | 0 | IES | TES |
| | PVL4022AS | LonWorks | 1/41/ | 4h | | | | VEO. | V/F0 |
| And the Party of t | PVB4022AS | BACnet MS/TP | VAV | 4 ^b | 0 | 2 | 2 | YES | YES |

UI - Universal Input, DI - Digital Input, AO - Analog Output, and DO - Digital Output

a BACnet models BTL listed
b One Universal Input (UI-1*) is user selectable as a fast digital pulse meter
C DO's are 24VAC relays (1.0 Amp running)

Additional I/O Module

| | Controller Model | Communication Protocol | Universal Input | Digital Input | Analog Output | Digital Output |
|------|------------------|------------------------|-----------------|---------------|---------------|----------------|
| | SI06042 | Sylk | 6 | 0 | 4 | 2 |
| (4-) | SI04022 | Sylk | 4 | 0 | 2 | 2 |
| | SI012000 | Sylk | 12 | 0 | 0 | 0 |

Advanced Configurable Field Controllers

| | Model | Communication Protocol | Programmable Type | UI | DI | AO | DO | Velocity Pressure Sensor (Microbridge) | Series 60 Floating Actuator |
|-------------|----------------|---------------------------|----------------------|----|----|----|----|---|--------------------------------|
| g and the s | CUL6438SR-CV1 | LonWorks | CVAHU | 6 | 4 | 3 | 8ª | NO | NO |
| | CVL4024NS-VAV1 | LonWorks | VAV | 4 | 0 | 2 | 4 | YES | NO |
| | CVL4022AS-VAV1 | LonWorks | VAV | 4 | 0 | 2 | 2 | YES | YES |

^a D0's are 24VAC relays (1.0 Amp running)

Lighting Zone Controllers

| Controller Model | Communication Protocol | Programmable Type | Daylight Harvesting Input | Switch/ Sensor Input | Circuit Output | 0-10v Dimming Output | Configuration | Lighting Scene Selection |
|---------------------|---------------------------|----------------------|---------------------------------|----------------------------|-------------------|----------------------------|---------------|--------------------------|
| CLB6438S | BACnet MS/TP | Lighting | 1 | 4 | 5 | 3 | TR75 | TR71/TR75 |
| CLB1433S | BACnet MS/TP | Lighting | 1 | 4 | 3 | 3 | TR75 | TR71/TR75 |
| CLB1311S | BACnet MS/TP | Lighting | 1 | 3 | 1 | 1 | TR75 | TR71/TR75 |

| Configurabl | e Field Controllers | Inputs | | | | | | | Outputs | | | |
|-------------|--------------------------|----------------|-----------|---------|------------------------|------------------|------------------------|-------|---------|--------|-----|--|
| Model | Application | Wall Module | Resistive | Voltage | Dry Contact Digital | Bypass Button | Integrated Actuator | Relay | Triac | Analog | LED | |
| W7750A | CVAHU | • | 1 | | 2 | • | | 6 | | | 1 | |
| W7750B | CVAHU | • | 4 | 2 | 4 | • | | | 8 | | 1 | |
| W7750C | CVAHU | • | 4 | 2 | 4 | • | | | 5 | 3 | 1 | |
| W7753 | Unit Ventilator | • | 2 | 2 | 4 | • | | | 8 | | 1 | |
| W7761 | Remote Input/Output | | 4 | 2 | 4 | | | | 8 | | | |
| W7751H | VAV | • | 1 | 1 | | • | • | | 4 | | 1 | |
| W7751B/D/F | VAV | • | 2 | 1 | 3 | • | | | 8 | | 1 | |
| W7752 | FCU | • | | | 1 | • | | 3 | | | 1 | |
| W7762/3 | Hydronic Controller | • | | | 1 | | | 1 | 4 | | | |
| T7350H | Communicating Thermostat | | | | | | | 8 | | | | |

Honeywell

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^{0 =} Open licensed controller is optional
• = Controller comes standard with open license