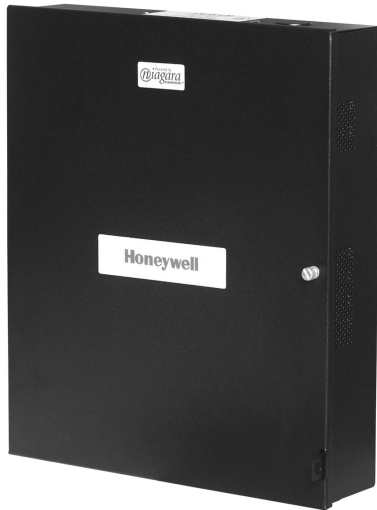


# WEB-403-AX, WEB-403-AX-E

## SPECIFICATION DATA



## FEATURES

- Embedded RISC Microprocessor platform.
- One LON<sup>®</sup> FTT10A port for LON device integration.
- Direct, on-board I/O with six universal inputs, and 4 digital relay outputs.
- One RS-485 port for connection to open and proprietary protocol devices.
- One RS-232 port for integration or support of an optional internal modem.
- Optional Web User Interface services to support many simultaneous users over the intranet or Internet via a standard web browser.
- The WEB-403-AX-E can integrate up to 120 LONWORKS<sup>®</sup> devices.

## GENERAL

WEBS<sup>AX™</sup> is a product suite developed on the Niagara Framework<sup>®</sup> that provides an end-to-end building automation solution. Users can seamlessly integrate LONWORKS, BACnet<sup>®</sup>, Modbus<sup>®</sup>, OPC<sup>®</sup>, and other standard protocols with legacy systems to provide a unified real-time controls network. The suite includes a browser-based graphical user interface allowing users to view and manipulate underlying systems without the need for dedicated workstations or client software.

WEBS<sup>AX</sup> provides the ability to create a customized user interface that combines intuitive navigation screens with dynamic, real-time displays. Third party graphic images, jpegs, and gif images can also be used in the creation of the user interface. Unique software technology eliminates the need for page refreshes or polling for data updates, thereby minimizing required bandwidth.

WEBS<sup>AX</sup> products bundle this software capability in a hardware platform that can be installed in typical building control environments. WEBS<sup>AX</sup> connects to system field busses and provides real-time control functions as constant streams of data from individual systems are instantaneously transformed to a common object model within WEBS<sup>AX</sup>. WEBS<sup>AX</sup> provides a fully distributed system when multiple units are networked together, which provides unsurpassed scalability and reliability. In this configuration, the WEBS<sup>AX</sup> Supervisor<sup>™</sup> can be used to network WEBS<sup>AX</sup> controllers and

manage enterprise-level control functions. The appropriate WEBS<sup>AX</sup> model is determined by connectivity and computing power requirements.

## APPLICATIONS

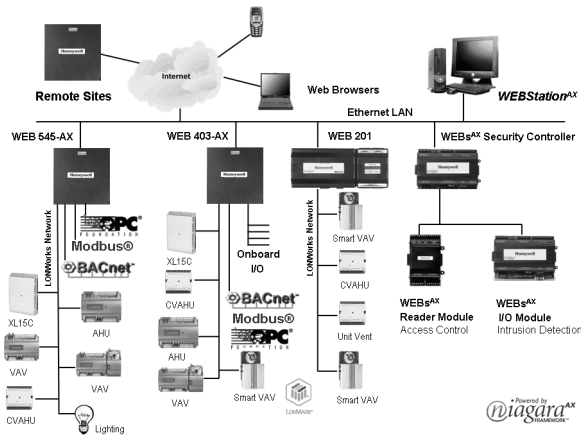
Specifically designed for light commercial applications, the WEB-403-AX is ideally suited for users who require a compact controller that can be wall or enclosure mounted. A single WEB-403-AX controller can be used to support a network of devices via the LONWORKS port and auxiliary devices that can be accessed directly via onboard I/O, or through the RS-485 port, or an RS-232 port (unless used by the optional internal modem). The onboard I/O can be used to monitor pulse contacts from power/demand meters, analog sensors or transducers, as well as control energy consuming devices with digital relay outputs.

The WEB-403-AX can integrate up to 27-networked devices with any combination of LON, Modbus, BACnet, or legacy devices. For installations where more than 27 devices are required, the WEB-403-AX-E can be used. The WEB-403-EXUP-AX is an upgrade that eliminates the 27-node restriction on existing WEBS<sup>AX</sup> controllers.



## ORDERING INFORMATION

Part Number	Description
WEB-403-AX	Basic WEB-403-AX with 27 device node limit.
WEB-403-AX-E	Extended Memory Version WEB-403-AX with no device node limit.
WEB-403-EXUP-AX	Upgrade of standard WEB-403-AX to remove the 27 device limit.
UI-SP-4XX	Optional Web User Interface (Web Server).
EC-SP-4XX	Optional Enterprise Connectivity (WEBs <sup>AX</sup> Supervisor communications links and BACnet Export capability).
WEB-403-EZ	EZ order bundle including WEB-403-AX, EC-SP-4XX and UI-SP-4XX.
MODEM-401	Optional dial-up modem for WEB-403-AX.



## SPECIFICATIONS

### Platform:

Motorola® RISC @ 250 MHz.  
 128 MB RAM, 32 MB Flash for database backup.  
 Extended Memory version: 256 MB RAM/128 MB Flash.  
 Java™ Application Control Engine with direct I/O support objects.  
 One 10/100 MB Ethernet RJ-45 connector.  
 FCC Class "A" computing Device.

### Communications:

One 10/100 MB Ethernet port - RJ-45 connection.  
 One RJ-45 connector for RS-232 port.  
 One RS-485 port (up to 78,600 baud for MSTP).  
 One LONWORKS port - FTT-10 with Weidmuller connector.  
 MDM401: Optional auto-dial /auto-answer 56K modem; RJ-11 connector (uses the RS-232 port when installed).

### Operating System:

QNX® Operating System with IBM® J9™ Java Virtual Machine.  
 Java Application Control Engine Software with I/O control objects.

### Power Supply:

120 Vac, 50/60 Hz.  
 25 VA maximum.  
 Lead wires for hot/neutral (wire nut).  
 Stud for ground connection.

### Battery Backup:

Battery backup provided for all onboard functions including I/O. Battery is monitored and trickle charged.  
 Battery maintains processor operation through power failures for a pre-determined interval, then writes all data to flash memory, shuts processor down, and maintains clock for a minimum of five years.

### Inputs/Outputs:

Four form C (SPDT) relay outputs rated for 24 Vac/dc at 2A resistive.

One LED indicator for each relay.

All I/O uses screw terminals on 0.2 centers.

Six Universal Inputs for 10 Kohm Type III (10K) Thermistor, 4 to 20 mA current loop, 0 to 10 V, or dry contact:

- 12-bit A/D converter.
- Thermistor Sensor Range -10° F to 135° F (-23° C to 57° C). Input accuracy is in the range of ±1% of span.
- 0 to 10 V or 4 to 20 mA accuracy is ±2% of span (no field calibration required). Uses external resistor for current input (four provided). Self- or board- powered sensors accepted.
- Dry contacts (on UI) 20 Hz maximum frequency (25 ms minimum pulse width). 3 V open circuit, 300mA short-circuit current.
- Board provides 20 Vdc at 80 mA to drive 4 to 20 mA powered sensors.
- 24 Vdc terminal and external resistor can be used if monitoring contacts that require higher voltages or higher current.

### Chassis:

Intended for indoor wall mounting only.

Cooling: Internal air convection.

Dimensions: 11 in. (279 mm) wide X 14 in. (356 mm) high X 2-1/2 in. (63 mm) deep.

Weight:

- Net: 4 lbs. (1.81 kg).
- Gross: 5 lbs. (2.27 kg).

### Agency Listings:

UL 916, C-UL listed.  
 CSA C22.2 No. 205-M1983 Signal Equipment.  
 CE.  
 FCC part 15 Class A.

### Environmental Ratings:

Temperature:

- Operating: 32° F to 122° F (0° C to 50° C).
- Storage: 32° F to 158° F (0° C to 70° C).

Humidity: 5 to 95%, non-condensing RH.

### Other

Maximum LON devices = up to 124

Maximum MSTP devices per RS-485 port = 31 standard load; 124.25 load devices; requires one MSTP driver per port.

Port speeds supported are:

- 4800 baud
- 9600 baud
- 19,200 baud
- 38,400 baud
- 57,600 baud
- 76,800 baud

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