



The VYKON JACE-600-A is a compact, embedded controller/server platform that combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform.

The JACE-600-A is ideal for small and medium facilities, remote sites, and for distributing control and monitoring throughout large facilities.



## VYKON JACE<sup>®</sup>-600-A J-IO-16-A and J-IO-34-A



### Overview

As an option, VYKON offers the JACE-600-A and associated power supply, option cards, and IO modules that are manufactured in the USA. The VYKON JACE-600-A is a compact, embedded controller/server platform that combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform.

The JACE-600-A makes it possible to control and manage external devices over the Internet and present real-time information to users in web-based graphical views.

The JACE-600-A is part of the VYKON suite of Java™ based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. VYKON is powered by the industry leading Niagara<sup>AX</sup> Framework<sup>®</sup>, the industry's first software technology designed to integrate diverse systems and devices into a seamless system. Niagara supports a wide range of protocols including LonWorks™, BACnet™, Modbus<sup>®</sup>, oBIX and Internet standards. The AX Framework also includes integrated network management tools to support the design, configuration, installation and maintenance of interoperable networks.

### Applications

The JACE-600-A is ideal for small and medium facilities, remote sites, and for distributing control and monitoring throughout large facilities. Optional input/output modules can be plugged in for applications where local control is required. The JACE-600-A also supports a wide range of field busses for connection to remote I/O and standalone controllers. In small facility applications, the JACE-600-A is all you need for a complete system.

The JACE-600-A serves data and rich graphical displays to a standard web browser via an Ethernet LAN or remotely over the Internet, or dial-up modem. In larger facilities, multi-building applications and large-scale control system integrations, VYKON AX Supervisor™ software can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of JACEs into a single unified application. The VYKON AX Supervisor can manage global control functions, support data passing over multiple networks, connect to enterprise level software applications, and host multiple, simultaneous client workstations connected over the local network, the Internet, or dial-up modem.





## Features

- Embedded PowerPC Platform@ 524MHz
- Supports open and legacy protocols
- QNX™ Real-time Operating System
- Web User interface (standard) serves rich graphical browser presentations
- Supports two optional communications boards
- Run stand-alone control, energy management, and integration applications within the JACE-600 series controllers
- Optional 16 and 34 point I/O Modules, for direct equipment control

## Ordering Information for Manufactured in the USA Devices

### JACE and Memory Upgrade Option

Part Number	Description
J-600-A	Base Unit including two Ethernet ports, one RS-232 port, one RS-485 port, one USB port, Web User Interface and Niagara Connectivity included. oBIX Client/Server driver included
NPB-256	Upgrade RAM memory to 256 MB DDR via license upgrade. Manufactured in the USA

### Optional Communications Cards

Part Number	Description
NPB-LON	Optional 78 Kbps FTT10 A Lon Adapter. Manufactured in the USA
NPB-232	NPB-232 - Optional RS-232 port adapter with 9 pin D- shell connector. Manufactured in the USA
NPB-2X-485	Optional dual port RS-485 adapter; electrically isolated. Manufactured in the USA

### Power Supply & Optional Power Modules

*Note: All models are universal input 90-240 volts 50/60 Hz except NPB-PWR. All WPM models contain plugs for receptacles for the intended locations. NPB-PWR-UN provides screw terminals for input wiring. Other Non USA Manufactured power supply modules are available. See price list or other documentation for more information.*

Part Number	Description
NPB-PWR	Optional: 24 Volt AC/DC power supply module, Din Rail mounted. Manufactured in the USA

### Optional IO Modules

Part Number	Description
IO-16-A	Optional 16 point IO module; directly connects to JACE IO connector
IO-34-A	Optional 34 point IO module; directly connects to JACE IO connector
IO-16-485	Optional remote 16 point IO module, RS-485 bus connected to JACE-600; up to 16 units may be connected maximum, additional power supply required to power the remote IO. Manufactured in the USA

## Specifications

### Platform

- PowerPC 440 524 MHz processor
- 128MB DDR RAM & 128 MB Serial Flash
- Optional 256 MB DDR RAM upgrade
- Battery Backup
- Real-time clock

### Communications

- 2 Ethernet Ports – 10/100 Mbps (RJ-45 Connectors)
- 1 RS 232 Port (9 pin D-shell connector)
- 1 RS 485 non isolated port (3 Screw Connector on base board)
- 1 USB 1.1 port (1.1) (for future application use)

### Operating System

- QNX Real-time Operating System
- IBM J9 JVM Java Virtual Machine
- Niagara<sup>AX</sup> 3.4 or later

### Power Options

- Direct connect (Pin compatible) with the NPB-PWR-UN power supply
- Modules can be powered directly from select JACE models with 15VDC outputs
- External 15 VDC power supply
- DIN rail or surface mounting

### Chassis

- Construction: Plastic, din rail or screw mount chassis, plastic cover
- Cooling: Internal air convection

### Environment

- Operating temperature range: 0° to 50°C (32°F to 122°F)
- Storage Temperature range: 0° to 70°C (32°F to 158°F)
- Relative humidity range: 5% to 95%, non-condensing

### Optional I/O Modules

#### IO-34 - 34 Point I/O Module

- Max of 1 per Jace-600; includes integral 24 volt AC/DC input power supply for JACE 2 and IO; no other power required
- 16 Universal Inputs (Type 3 (10k) Thermistors, 0-1000 ohm, 0-10 volts, 0-20 mA with external resistor)
- 10 relay outputs (Form A contacts, 24 VAC @.5 amp rated (pilot duty rated))

- 8 analog outputs (0-10 volt DC)

#### IO-16 - 16 Point I/O Module

- Up to 4 per Jace-600, 2 per Jace-600 if combined with a 34 Point I/O module
- 8 Universal Inputs (Type 3 (10k) Thermistors, 0-1000 ohm, 0-10 volts, 0-20 mA with external resistor)

- 4 relay outputs (Form A contacts, 24 VAC @.5 amp rated)

- 4 analog outputs (0-10 volt DC)

#### IO-16-485 Remote IO module

- 16 IO Points per device
- 8 Universal Inputs - Type 3 (10k) Thermistors, 0-100K ohm, 0-10 vdc, 0-20 mA with external resistor
- 4 relay outputs (Form A contacts, 24 VAC @ .5 amp rated)
- 4 analog outputs (0-10 vdc)
- Up to 16 remote IO-16-485 modules max per JACE-600 connected via RS-485 network; external power source required for the IO modules

### Agency Listings

- RoHS Compliant 
- BTL (with optional BACnet driver) 
- UL 916
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- CE
- FCC part 15 Class A

# Architecture

