



Vykon JACE-545®

Advantages:

- Expanded Serial Ports
- Faster Processor
- Easy Installation With Power Supply Included
- Rugged Metal Enclosure

Overview

Vykon® is a product suite developed on the Niagara Framework® that provides an end-to-end building automation solution. Users can seamlessly integrate LonWorks®, BACnet®, Modbus®, OPC®, 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.

Vykon JACE® (Java Application Control Engine) products bundle this software capability in a hardware platform that can be installed in most any building control environment. JACEs connect to system field busses and provide real-time control functions as constant streams of data from individual systems are instantaneously transformed to a common object model within the JACE.

JACEs provide a fully distributed system when multiple units are networked together, which provides unsurpassed scalability and reliability. In this configuration, the Vykon Web Supervisor® can be used to network JACE controllers and manage enterprise-level control functions. The appropriate JACE model is determined by connectivity and computing power requirements.

Applications

Specifically designed for commercial applications, the JACE-545 is ideally suited for users who require a compact controller that can be wall or enclosure mounted. A single JACE-545 controller can be used to support a network of devices via the LonWorks port and auxiliary devices that can be accessed through the four RS-485 ports or two RS-232 ports (unless used by the optional internal modem).

A JACE-545 can integrate any combination of LON, Modbus, BACnet, or legacy devices with the appropriate optional drivers.

Features

- Embedded RISC Microprocessor platform
- One LON FTT10A port for LON device integration
- Four RS-485 ports (electrically isolated) for connection to open and proprietary protocol devices
- Two RS-232 port for Integration or support of an optional modem







Vykon JACE-545®

Operating System

- Wind River VxWorks® Operating System with Jeode™ Java Virtual Machine
- R2 JACE (Control Engine) Software

Battery Backup

- Battery backup provided for all on board 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

Enclosure - Metal enclosure with hinged door

- Intended for indoor wall mounting only
- · Cooling: Internal air convection
- Dimensions: 11" wide X 14" high X 2.5" deep (27.94 cm wide X 35.56 cm high X 6.35 cm deep)
- Weight: Net 4 lbs. (1.814 kg), Gross 5lbs. (2.268 kg)

Resource Capacities

- Java Resource count maximum is 600,000
- Maximum MSTP devices per RS-485 port = 31 (depending upon device); requires one MSTP driver per port. More devices may be possible but are not guaranteed

Environment

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

Agency Listings

- UL 916
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- FCC part 15 Class A

Ordering Information

Part #	Description
JACE-545	Basic JACE-545 (120 VAC)
JACE-545I	International version (230 VAC)
JACE-545-UI	JACE-545 (120 VAC) with UI service
JACE-545I-UI	International version (230 VAC) with UI service
MDM-401	Optional dial-up modem for the JACE 545 Must be factory installed.

Ethernet, TCP/IP, BACnet, Modbus, XML, HTTP

Specifications

BACnet

Platform - JACE-545 (JACE-545I International)

- Motorola RISC Processor @ 250MHz
- JACE Control Engine with direct I/O support objects • 128 MB Ram, 32 MB Flash for database backup
- One 10/100 Mb Ethernet RJ-45 connector
- FCC Class "A" computing Device

Communications

- One 10/100 Mb Ethernet port RJ-45 connection
- Two RJ-45 connectors for RS-232 port
- Four RS-485 ports (up to 76,800 baud) with Weidmuller connectors
- One LonWorks port FTT-10 with Weidmuller connector
- Optional auto-dial /auto-answer 56K modem; RJ-11 connector. (Uses one RS-232 port when installed)

Power Supply

- 120VAC, 50/60 Hz, JACE-545I 230 VAC 50/60 Hz.
- 25 VA maximum.
- Lead wires for hot/neutral (wire nut), stud for ground connection, Screw Terminal connection for the J-545I version

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