

JACE 9000 controller

PRODUCT DEFINITION

The JACE® 9000 is a compact, embedded IoT (Internet of Things) controller and server platform for connecting multiple and diverse devices and sub-systems. With internet connectivity and web-serving capability, the JACE 9000 controller provides integrated control, supervision, data logging, alarming, scheduling and network management. It streams data and rich graphical displays to a standard web browser via an Ethernet or wireless LAN, or remotely over the internet.

The licensing model for the JACE 9000 controller is simplified and features standard drivers, along with optional IO and field bus expansion modules for ultimate flexibility and expandability. The JACE 9000 controller operates with Niagara 4, the latest version of the Niagara Framework®, for optimum performance. In larger facilities, multi-building applications and large-scale control system integrations, Niagara 4 Supervisors can be used with JACE controllers to aggregate information, including alarms, and historical and real-time data, to create a single, unified application.



HARDWARE SPECIFICATIONS

NXP iMX8M+ Quad Core CPU

2GB LPDDR4 RAM

8GB onboard EMMC storage

8GB micro-SD card (backup media)

Wi-Fi (Client or WAP)

- Wi-Fi 5 (802.11ac)
- 1x1 802.11 a/b/g/n/ac
- Configurable radio (Off, WAP, or Client)
- WPAPSK/WPA2PSK supported
- Only available for wireless model

USB type C connector

- Debug port

(2) isolated RS-485 with selectable bias and termination

(2) 10/100/1000MB Ethernet ports

Secure boot

*Supply requirements: 24VAC rated at 24VA minimum, or 24VDC rated at 1A (24W) minimum

Runs Niagara 4: 4.13 and later

Real-time clock

Batteryless

**VYKON Enterprise Security requires four hours of standby power*

ORDERING INFORMATION: SOFTWARE & SOFTWARE MAINTENANCE

Every JACE 9000 is available with a Niagara 4.13 or higher software license and Tridium's standard drivers. Purchase of a software maintenance agreement (SMA) is required with initial JACE licensing. The initial SMA is for 18 months, with extended agreements of 3 years and 5 years available for discounted rates.

Note: If a Software Maintenance Agreement is not in effect for any period, the price of maintenance for the next period for which it is purchased will be priced at a cost equal to the maintenance fee for the period(s) for which maintenance was not purchased, up to a maximum of 5 years, plus the maintenance fee for the next year.

ORDERING INFORMATION: VYKON INTEGRATED ANALYTICS

VYKON Integrated Analytics is a data analytics extension to the Niagara Framework available on JACE 9000 controllers. 25 VYKON Integrated Analytic points are included with every JACE 9000 license. VYKON Integrated Analytics licenses are conveniently and cost-effectively based on the number of analytical points and do not expire. Your Software Maintenance Agreement covers all VYKON Integrated Analytics enhancements, adding to the value of the SMA.

key features

- Data analysis at the onsite JACE controller level
- Real-time on-premise analytic control

Part number	Description
NA-EC-N4-100	VYKON Integrated Analytics Framework (on Niagara 4) license for 100 analytic points for an Embedded Controller (JACE)
NA-EC-N4-250	VYKON Integrated Analytics Framework (on Niagara 4) license for 250 analytic points for an Embedded Controller (JACE)
NA-EC-N4-500	VYKON Integrated Analytics Framework (on Niagara 4) license for 500 analytic points for an Embedded Controller (JACE)
NA-EC-N4-1000	VYKON Integrated Analytics Framework (on Niagara 4) license for 1,000 analytic points for an Embedded Controller (JACE)

Find additional data sheets for
VYKON Integrated Analytics
on VYKON's website

EXPANSION MODULE AND IO CONFIGURATIONS

MAXIMUM EXPANSION (MODULES SUPPORTED)

- NPB-8000-LON (4)
- NPB-8000-232 (4)
- NPB-8000-2X-485 (2)

MAXIMUM IO (MODULES SUPPORTED)*

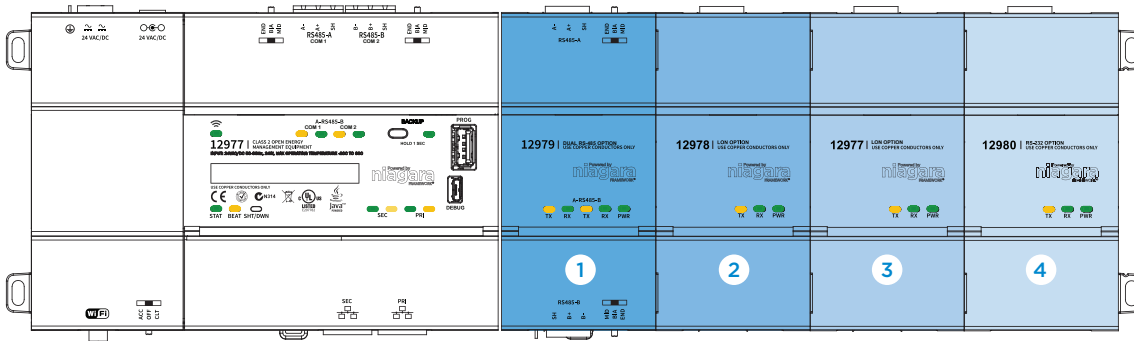
- IO-R-16 (16)*
- IO-R-34 (8)*

*See JACE IO R data sheet for configuration details

MAXIMUM VYKON ENTERPRISE SECURITY (MODULES SUPPORTED)*

- SEC-R2R*
- SEC-RIO*

*16 total each or combined



MAXIMUM COMBINATIONS

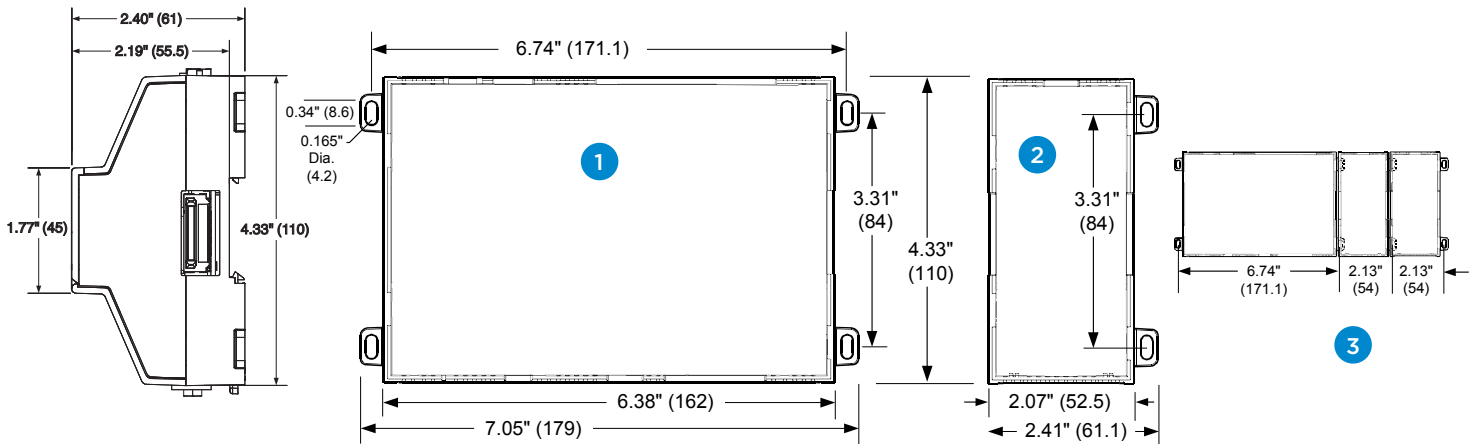
EXPANSION 1	EXPANSION 2	EXPANSION 3	EXPANSION 4
232 or LON	232 or LON	232 or LON	232 or LON
485	232 or LON	232 or LON	232 or LON
485	485	232 or LON	
485	485		

Expandability is dependent on the type of expansion module used



JACE® 9000 CONTROLLER MOUNTING & DIMENSIONS

- 1 JACE 9000 controller. Allow at least 1.5" (38mm) clearance around all sides and minimum 3" (76mm) at bottom for Wi-Fi antenna
- 2 Expansion module. Up to four (4) may be used. See "Expansion Module and IO Configurations"
- 3 Distances between center of tabs from one unit to another unit



Compatible with (DIN43880) enclosures

Suitable for mounting to a panel or to an EN50022 standard 35mm rail

Vizio stencils available upon request

AGENCY CERTIFICATIONS

- UL 916
- CE EN 61326-1
- RCM
- FCC Part 15 Subpart B, Class B
- FCC Part 15 Subpart C
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- 1999/5/EC R&TTE Directive
- CCC
- SRRC
- RSS
- RoHS

ENVIRONMENTAL SPECIFICATIONS

- **Operating temperature:** -20-60°C
- **Storage temperature:** -40-85°C
- **Humidity:** 5%-95% — Non condensing
- **Shipping & vibration:** ASTM D4169, Assurance Level II
- **MTTF:** 10 years+

Contact support@tridium.com for the latest agency certifications or global shipping guide

JACE® 8000 ORDERING INFORMATION

Part number	Description
J-9000	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports and Wi-Fi connectivity.
JACE-9000 Non-Wi-Fi	Identical in form and function to standard JACE-8000 model without the Wi-Fi module and peripherals.
JACE-9000-DEMO	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports, Wi-Fi connectivity, all available Tridium drivers and a 500 device license. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
NC-9XXX-DEMO	JACE 9000 Demo with 500 Device Core. Includes all available Tridium Drivers . Requires Niagara 4.13 or higher. Available with VYKON Integrated Analytics (non-production only). License will renew annually with the receipt of the annual support fee.
NC-9005	Up to 5 devices/250 point core
NC-9010	Up to 10 devices/500 point core
NC-9025	Up to 25 devices/1,250 point core
NC-9100	Up to 100 devices/5,000 point core
NC-9200	Up to 200 devices/10,000 point core
DEVICE-10	Up to 10 devices/500 point upgrade (can be purchased during initial licensing)
DEVICE-25	Up to 25 devices/1,250 point upgrade (can be purchased during initial licensing)
DEVICE-50	Up to 50 devices/2,500 point upgrade (can be purchased during initial licensing)
NPB-8000-2X-485	JACE 8000 & 9000 controllers — add on dual port RS-485 module
NPB-8000-LON	JACE 8000 & 9000 controllers — add on single port LON FTT10A module
NPB-8000-232	JACE 8000 & 9000 controllers — add on single port RS-232 module
WPM-8000	Universal power supply for JACE 8000 & 9000 controllers
IO-R-16	Optional 16 point IO RS485 module designed for use with the JACE 8000 & 9000 — Includes 8 Universal Inputs, 4 Form A Relay Outputs and 4 0-10 VDC Analog Outputs
IO-R-34	Optional 34 point IO RS485 module designed for use with the JACE 8000 & 9000 — Includes 16 Universal Inputs, 10 Form A Relay Outputs and 8 0-10 VDC Analog Outputs

The JACE 9000 controller is available through a wide variety of Niagara Community partners. Our open distribution business model and open protocol support allow a vendor-neutral application compatible with devices and systems throughout the world. Contact your VYKON partner today to get started.

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