

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

Removable 8GB micro-SD card

Wi-Fi (Client or WAP)

- Wi-Fi 5 (802.11ac)
- 1x1 802.11 a/b/g/n/ac
- Configurable radio (Off, WAP, or Client)
- WPA2PSK/WPA3PSK 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

**Niagara 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: NIAGARA ANALYTICS

Niagara Analytics is a data analytics extension to the Niagara Framework available on JACE 9000 controllers. 25 Niagara Analytic points are included with every JACE 9000 license. Niagara Analytics licenses are conveniently and cost-effectively based on the number of analytical points and do not expire. Your Software Maintenance Agreement covers all Niagara 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	Niagara Analytics Framework (on Niagara 4) license for 100 analytic points for an Embedded Controller (JACE)
NA-EC-N4-250	Niagara Analytics Framework (on Niagara 4) license for 250 analytic points for an Embedded Controller (JACE)
NA-EC-N4-500	Niagara Analytics Framework (on Niagara 4) license for 500 analytic points for an Embedded Controller (JACE)
NA-EC-N4-1000	Niagara Analytics Framework (on Niagara 4) license for 1,000 analytic points for an Embedded Controller (JACE)

Find additional data sheets for Niagara Analytics and Niagara Drivers on Tridium’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)*

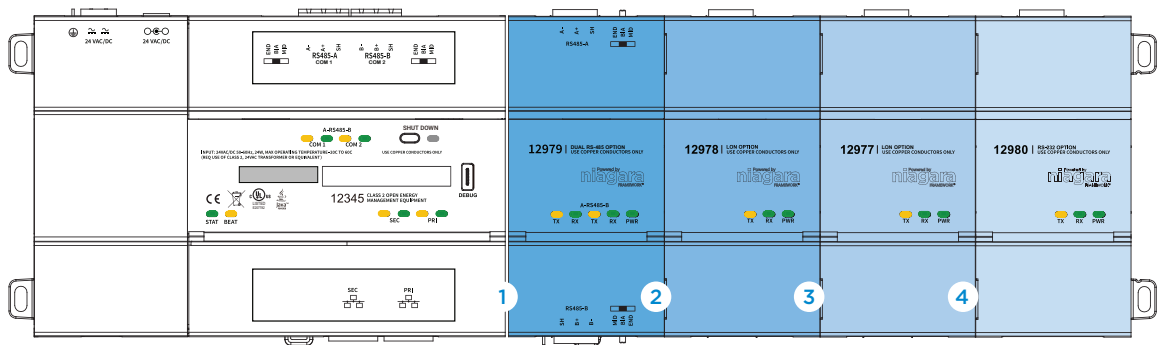
- IO-R-16 (16)*
- IO-R-34 (8)*

**See JACE IO R data sheet for configuration details*

MAXIMUM NIAGARA ENTERPRISE SECURITY (MODULES SUPPORTED)*

- T-SEC-R2R*
- T-SEC-RIO*

**16 total each or combined*



MAXIMUM COMBINATIONS

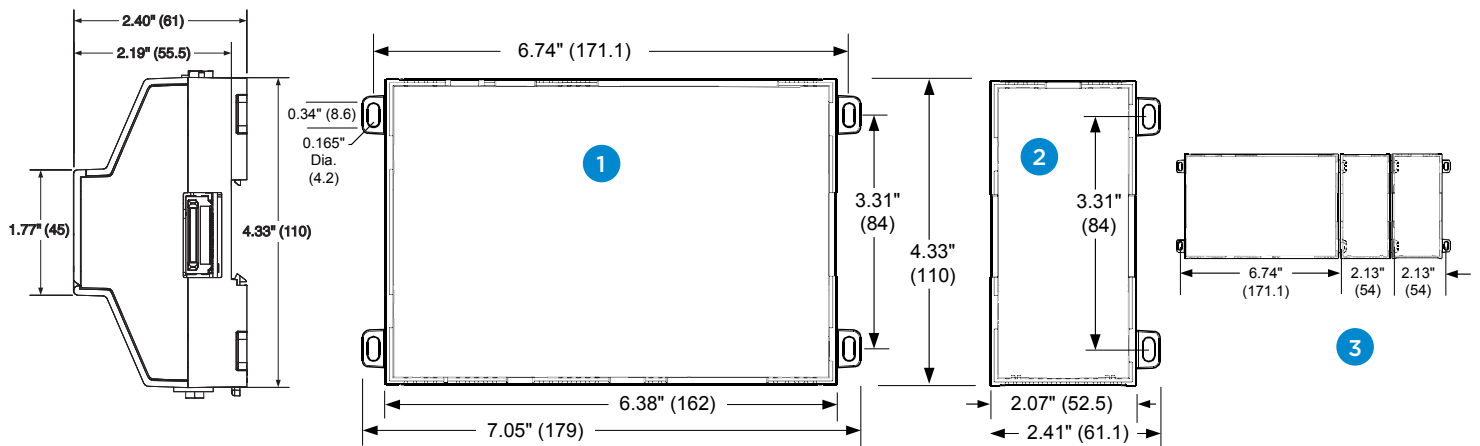
EXPANSION 1	EXPANSION 2	EXPANSION 3	EXPANSION 4
232 or LON	232 or LON	232 or LON	232 or LON
485 485	232 or LON	232 or LON	232 or LON
485 485	485 485	232 or LON	
485 485	485 485		

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 optional 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® 9000 ORDERING INFORMATION

Part number	Description
JACE-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 9000 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 Niagara 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

JACE® 9000 ORDERING INFORMATION: NIAGARA ENTERPRISE SECURITY

Niagara Enterprise Security is an access control product offering that is powered by the Niagara Framework for integrated control. The Niagara Enterprise Security application runs within the Niagara Framework on the JACE 9000. Niagara Enterprise Security licensing is consistent with all Niagara 4 licensing. Use the same JACE 9000 and Supervisor parts that are used for building automation applications and add security licensing.

NIAGARA ENTERPRISE SECURITY ON THE JACE 9000

Part number	Description
SEC-J9-32	Niagara Enterprise Security license for JACE 9000 controller on N4 platform. Includes licensing for 32 readers (not included in capacity). Does not include the JACE 9000 controller.

JACE ACCESSORIES FOR NIAGARA ENTERPRISE SECURITY

Part number	Description
T-SEC-R2R	Security module for 2 readers/access doors and 2 digital inputs
T-SEC-RIO	Security module with 8 supervised inputs, 8 relay outputs and 2 digital inputs
T-SEC-ENC-LNP	Large enclosure with keyed lock, door status switch, and 2 din rails for mounting JACE 8000 or 9000 controller and up to 4 remote reader modules or 2 remote IO modules. Several other combinations of devices may be mounted in this panel. Dimensions: 17"W x 22"H x 4"D.

Find additional data sheets for
the Niagara Enterprise Security
application on Tridium's website

The JACE 9000 controller is available through a wide variety of original equipment manufacturers. Our open distribution business model and open protocol support allow a vendor-neutral application compatible with devices and systems throughout the world.



tridium.com

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