

JACE 8000 controller

PRODUCT DEFINITION

The JACE® 8000 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 8000 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. Niagara Enterprise Security is an application that runs within the Niagara Framework® on the JACE 8000. Niagara Analytics is a data analytics extension to the Niagara Framework available on JACE 8000 controllers.

The licensing model for the JACE 8000 controller is simplified and features standard drivers, along with optional IO and field bus expansion modules for ultimate flexibility and expandability. The JACE 8000 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 8000 controllers to aggregate information, including alarms, and historical and real-time data, to create a single, unified application.



HARDWARE SPECIFICATIONS

TI AM3352: 1000MHz ARM® Cortex™-A8

1GB DDR3 SDRAM

Removable micro-SD card with 4GB flash total storage/2GB user storage

*Wi-Fi (Client or WAP)
IEEE802.11a/b/g/n
IEEE802.11n HT20 @ 2.4GHz
IEEE802.11n HT20/HT40 @ 5GHz
Configurable radio (Off, WAP, or Client)
WPAPSK/WPA2PSK supported

*USB type A connector
Back-up and restore support

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

(2) 10/100MB Ethernet ports

Secure boot

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

Runs Niagara AX: 3.8u1 and later

Runs Niagara 4: 4.1 and later

Niagara Analytics 1.1 requires Niagara AX 3.8u1 or later update builds

Niagara Analytics 2.1 is compatible with Niagara 4.4 and 4.6

Real-time clock

Batteryless

*Not supported with Niagara AX

**Niagara Enterprise Security requires four hours of standby power

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)*

- T-IO-16-485 (16)*
- IO-R-16 (16)*
- IO-R-34 (8)*

*See JACE 8000 IO R data sheet for configuration details

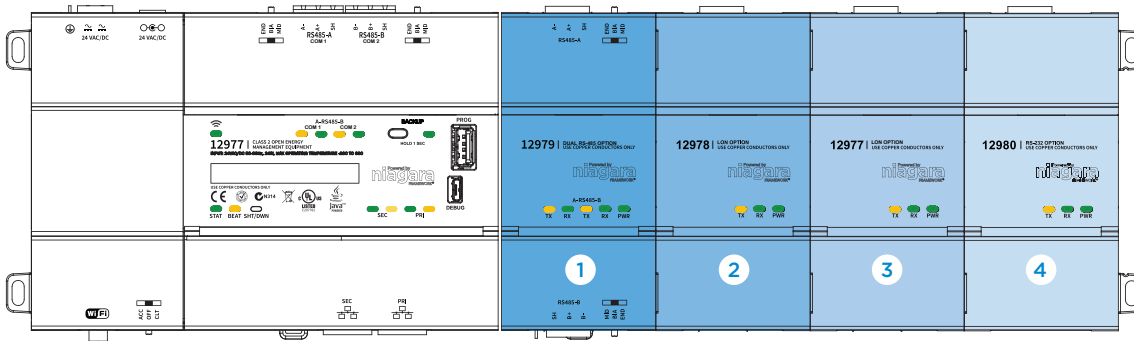
MAXIMUM NIAGARA ENTERPRISE SECURITY (MODULES SUPPORTED)*

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

*16 total each or combined

MAXIMUM NIAGARA ENTERPRISE SECURITY INTRUSION KEYPADS

- SEC-INT-KP (6)



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



ORDERING INFORMATION: SOFTWARE & SOFTWARE MAINTENANCE

Every JACE 8000 comes with a Niagara 4 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

25 Niagara Analytic points are included with every JACE 8000 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

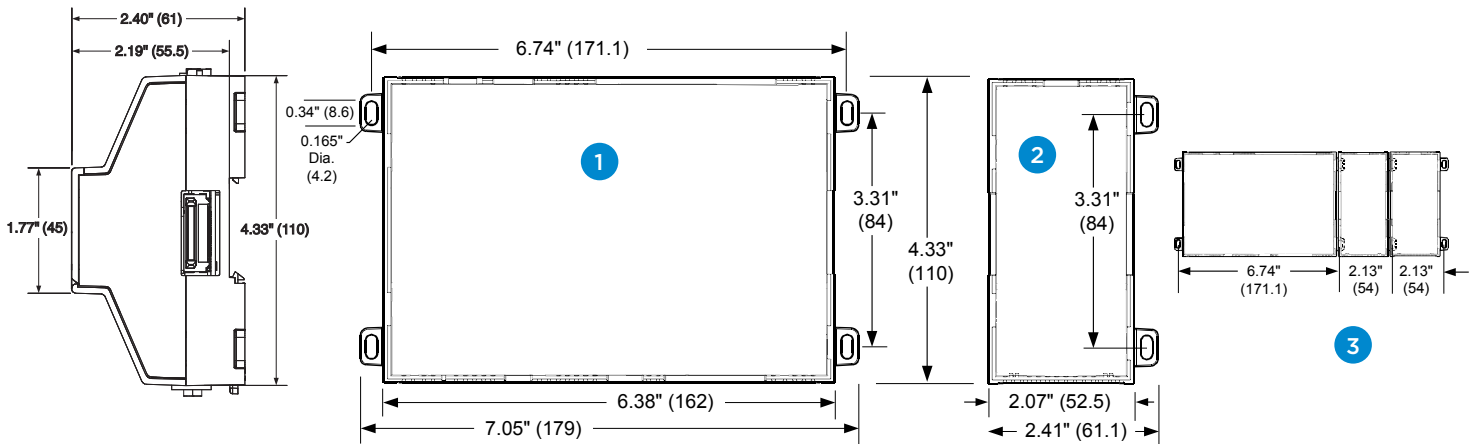
- Data analysis at the onsite JACE controller level
- Real-time on-premise analytic control

Part number*	Description
NA-EC-N4-100	Niagara Analytics Framework (on Niagara 4) license for 100 analytic points for an Embedded Controller (JACE 8000)
NA-EC-N4-250	Niagara Analytics Framework (on Niagara 4) license for 250 analytic points for an Embedded Controller (JACE 8000)
NA-EC-N4-500	Niagara Analytics Framework (on Niagara 4) license for 500 analytic points for an Embedded Controller (JACE 8000)
NA-EC-N4-1000	Niagara Analytics Framework (on Niagara 4) license for 1,000 analytic points for an Embedded Controller (JACE 8000)

Find additional data sheets for
Niagara Analytics and Niagara
Drivers on Tridium's website

JACE® 8000 CONTROLLER MOUNTING & DIMENSIONS

- 1 JACE 8000 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
JACE-8000	Base unit includes two isolated RS485 ports, two 10/100MB Ethernet ports, USB Backup & Restore and Wi-Fi connectivity
JACE-8000-DEMO	Base unit includes two isolated RS485 ports, two 10/100MB Ethernet ports, USB Backup & Restore, Wi-Fi connectivity, all available Tridium drivers and a 500 device license. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
NC-8XXX-DEMO	JACE 8000 Demo with 500 Device Core. Includes all available Tridium drivers. Requires Niagara 4.1 or higher. Available with Niagara Analytics (non-production only). License will renew annually with the receipt of the annual support fee.
NC-8005	Up to 5 devices/250 point core
NC-8010	Up to 10 devices/500 point core
NC-8025	Up to 25 devices/1,250 point core
NC-8100	Up to 100 devices/5,000 point core
NC-8200	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)
DEVICE-UP-10	Up to 10 devices/500 point upgrade (can be purchased post initial licensing)
DEVICE-UP-25	Up to 25 devices/1,250 point upgrade (can be purchased post initial licensing)
DEVICE-UP-50	Up to 50 devices/2,500 point upgrade (can be purchased post initial licensing)
JACE-8000-AX	Enables JACE 8000 controller to run Niagara AX 3.8u1 or later
NPB-8000-2X-485	JACE 8000 controller — add on dual port RS-485 module
NPB-8000-LON	JACE 8000 controller — add on single port LON FTT10A module
NPB-8000-232	JACE 8000 controller — add on single port RS-232 module
WPM-8000	Universal power supply for JACE 8000 controller
T-IO-16-485	Remote IO module, compatible with the JACE 8000 controller. Communication using RS 485, maximum IO supported T-IO-16-485 modules: 16
T-NPB-PWR	24V power supply for T-IO-16-485
T-NPB-PWR-UN	Universal power supply for T-IO-16-485
IO-R-16	Optional 16 point IO RS485 module designed for use with the JACE 8000 — 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 — Includes 16 Universal Inputs, 10 Form A Relay Outputs and 8 0-10 VDC Analog Outputs

ORDERING INFORMATION: NIAGARA ENTERPRISE SECURITY

Your Software Maintenance Agreement covers all Niagara Enterprise Security enhancements, adding to the value of the SMA.

NIAGARA ENTERPRISE SECURITY ON THE JACE 8000

Part number	Description
SEC-J8-AX	Niagara Enterprise Security license for JACE 8000 controller. Includes licensing for 32 readers (not included in capacity). Also includes JACE 8000 Niagara AX license option (JACE-8000-AX). Does not include the JACE 8000 controller.
SEC-J8-32	Niagara Enterprise Security license for JACE 8000 controller on N4 platform. Includes licensing for 32 readers (not included in capacity). Does not include the JACE 8000 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
SEC-INT-KP	Intrusion keypad with LCD display for arming/disarming security zones
T-SEC-ENC-LNP	Large enclosure with keyed lock, door status switch, and 2 din rails for mounting JACE 8000 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 8000 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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