

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.

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 real-time data, history and alarms, 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

24VAC/DC power supply ←

Runs Niagara 4.1 and later

Real time clock

Batteryless

Supplied by 120 to 24vac transformer in the ENC-001 enclosure.



powered by

niagara
framework[®]

EXPANSION MODULE AND IO CONFIGURATIONS

MAXIMUM EXPANSION MODULES SUPPORTED

NPB-8000-LON: 4

NPB-8000-232: 4

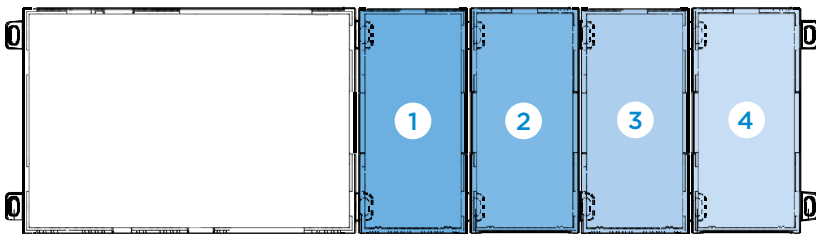
NPB-8000-2X-485: 2

MAXIMUM IO MODULES SUPPORTED

T-IO-16-485: 16

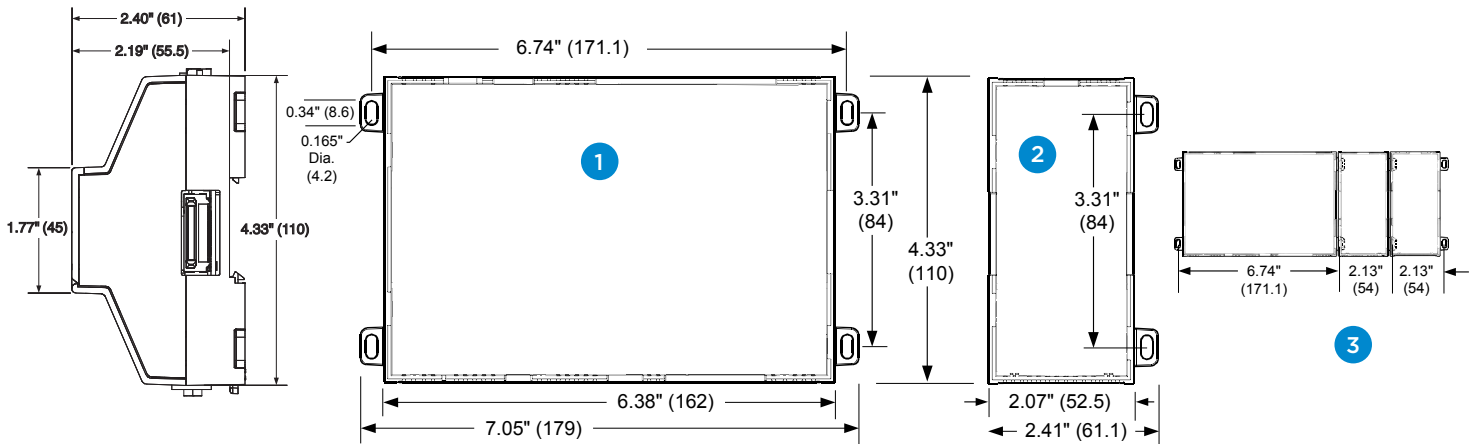
MAXIMUM COMBINATIONS

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		



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

AGENCY CERTIFICATIONS

- UL 916
- CE EN 61326-1
- 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+

ORDERING INFORMATION

Part number	Description
<u>JACE-8000</u>	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
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 (3.8U). 3.8U Build with JACE 8000 controller support
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

Licensing will be provided based on final system design.

*All NC-8XXX parts include a Niagara 4 license and Tridium's standard driver suite. Please see Tridium standard driver suite documentation for more details.

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.



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2015-0013



Tridium Vykon J-8000
Enclosure

VYKON JACE Enclosures

Overview

New Enclosures for Din-Rail mounted products.

VYKON®, powered by the revolutionary Niagara^{AX} Framework®, is a suite of JavaTM-based products designed to integrate a variety of devices and protocols into a common distributed automation system. It incorporates the industry's first software technology to integrate LonWorksTM, BACnetTM, and various Internet standards in a common object model, embedded at the controller level and supported by a standard web browser interface. VYKON also includes integrated network management tools to support the design, configuration, installation, and maintenance of interoperable networks.



The JACE Enclosures are available in two sizes to meet many mounting needs for the VYKON JACE products that are DIN-rail mounted.

Doors are "lift-off" style to allow easy access during mounting and wiring of devices within the enclosures

A locking tab is also provided to allow a lock to be added for additional security.

The JACE Enclosures are available in two sizes to meet many mounting needs for the VYKON JACE products that are DIN-rail mounted. The two sizes are 12" x 18" x 4" and 12" x 28" x 4" nominal overall. Included in each is a 24 VAC step-down transformer to provide the AC input for the JACE or one of the power supply option modules. In addition, each enclosure has permanently mounted din-rail for mounting of the JACE 2 or 6 and their associated accessory modules. Threaded studs are integrated into the back of the enclosure for attaching cable shields from field signal / sensor cables. It is also possible to mount lengths of plastic "wire duct" if desired over these threaded studs. Also available are two "half-size" backplates for mounting auxiliary devices such as relays signal conditioners, etc., where desired. A 120 volt convenience outlet is also include inside the enclosure for test equipment power.

Features

- Two sizes - 12" x 18" x 4" and 12" x 28" x 4" nominal overall
- Permanent DIN-rail for mounting of JACE and associated modules
- 1/2" and 3/4" knockouts are provided on all sides of the enclosures to facilitate wiring from any location
- Integral threaded studs (#6 x 3/8") for attaching cable shields for noise immunity
- Optional perforated backplates for mounting auxiliary devices such as relays transducers, transmitters, etc.
- Integral "loops" on enclosure back to facilitate wire-tying cables to the enclosure for effective cable management
- Wire-duct may be mounted on the integral threaded studs if desired (wire-duct not included), Panduit 644-G1X1.5LG6-1 recommended
- Internal mounted 24 VAC, 20 VA rated transformer included in both enclosures
- A combination breaker/switch (5 Amp) is provided to allow shutting down of the connected equipment for service



Tridium J8000 is supported by this enclosure.

- Large enclosure (12" x 28" x 4") will support the JACE-2 or 6 and up to 4 IO-16 modules plus the Power Supply module
- Small enclosure (12" x 18" x 4") will support the JACE-2 or 6 and one IO-34 module
- Integral 120 Volt AC convenience outlet is provided for powering test equipment
- Wall mounting via four "dimpled holes in the back of the enclosure eases mounting on uneven walls
- Doors are "lift-off" style to allow easy access during mounting and wiring of devices within the enclosures
- Door is provided with a 1/4 – turn locking fastener
- A locking tab is also provided to allow a lock to be added for additional security
- Incoming power is terminated to an internal screw-terminal strip to facilitate connections to the AC power source
- Incoming power can be converted to 240 Volts AC with wiring changes as noted in the installation guide for use with the NPB-PWR-UN universal power supply module; the convenience outlet would have to be deactivated if this option is taken.
- Enclosures are painted in "Tridium Blue" with a textured finish for durability
- These enclosures are NEMA 1 and UL Listed Type 1 Enclosure

Ordering Information

Part Number	Description
<u>ENC-001</u>	Enclosure with 24 VAC Transformer 12" x 18" x 4" ←
ENC-BKP-1	Optional perforated backplate with mounting hardware 8" x 11" (may be cut to size as required)
ENC-002	Enclosure with 24 VAC Transformer 12" x 28" x 4"
ENC-BKP-2	Optional perforated backplate with mounting hardware 11" x 11" (may be cut to size as required)

Specifications

ENC-001 ←

- 12" wide X 18" high X 4" deep (nominal).
- 20 Pounds.
- Switch Breaker is rated at 5 Amps, 120 VAC.

ENC-002

- 12" wide X 28" high X 4" deep (nominal),
- 24 Pounds.
- Outlet is rated at 15 Amps (not switched by Breaker).

Agency Listings

- UL Listed Type 1
- NEMA 1 Category

