# 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. VYKON Enterprise Security is an application that runs within the Niagara Framework® on the JACE 8000. VYKON Integrated 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 4: 4.1 and later |
| VYKON Integrated Analytics 2.1 is compatible with Niagara 4.4 and later |
| Real-time clock |
| Batteryless |

*VYKON Enterprise Security requires four hours of standby power*

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# 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: VYKON INTEGRATED ANALYTICS

25 analytic points are included with every JACE 8000 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 8000) |
| NA-EC-N4-250 | VYKON Integrated Analytics Framework (on Niagara 4) license for 250 analytic points for an Embedded Controller (JACE 8000) |
| NA-EC-N4-500 | VYKON Integrated Analytics Framework (on Niagara 4) license for 500 analytic points for an Embedded Controller (JACE 8000) |
| NA-EC-N4-1000 | VYKON Integrated Analytics Framework (on Niagara 4) license for 1,000 analytic points for an Embedded Controller (JACE 8000) |

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

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# EXPANSION MODULE AND IO CONFIGURATIONS

### MAXIMUM EXPANSION (MODULES SUPPORTED)

- NPB-8000-LON (4)
- NPB-8000-232 (4)
- NPB-8000-2X-485 (2)
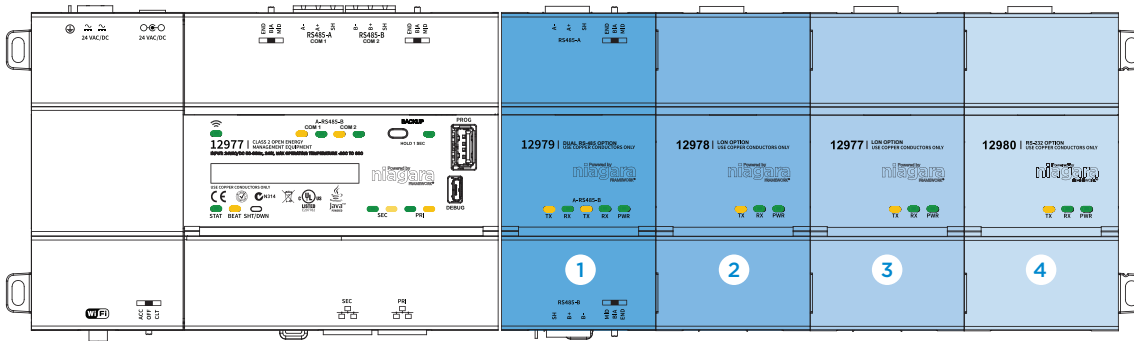
### MAXIMUM IO (MODULES SUPPORTED)*

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

*See JACE 8000 IO R data sheet for configuration details*

### MAXIMUM NIAGARA ENTERPRISE SECURITY (MODULES SUPPORTED)*

- SEC-R2R*
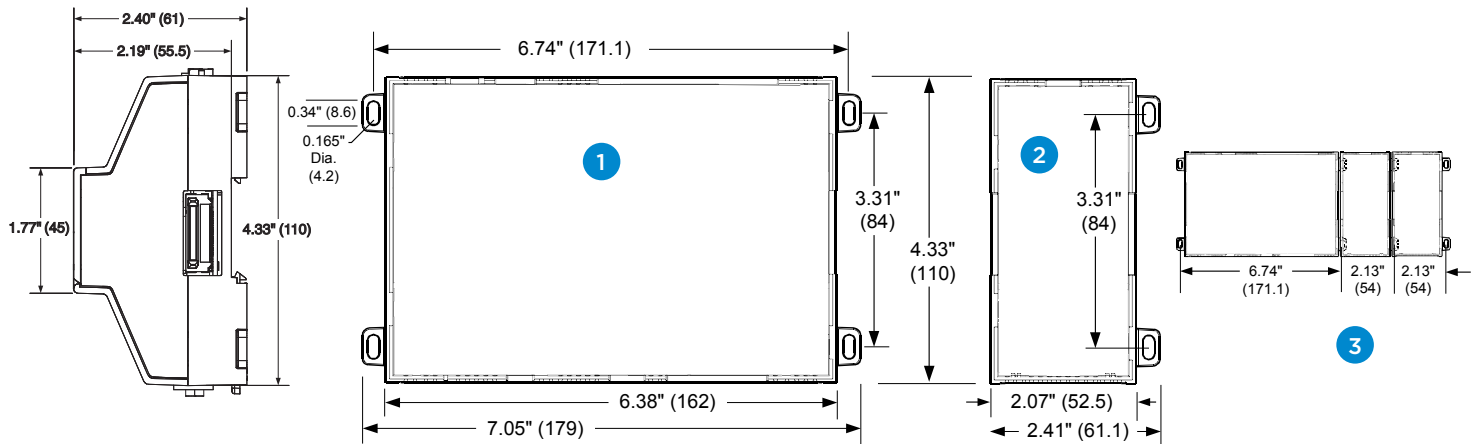- SEC-RIO*

*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 |
| 485 485 | 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® 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 |
|---|---|
| J-8005 | JACE 8000 Controller, microSD card, 2 10/100 Mb Ethernet ports, 2 RS-485 serial ports. Licensed for 5 Device/250 Point Limit. Includes standard open drivers. |
| J-8010 | JACE 8000 Controller, microSD card, 2 10/100 Mb Ethernet ports, 2 RS-485 serial ports. Licensed for 10 Device/500 Point Limit. Includes standard open drivers. |
| J-8025 | JACE 8000 Controller, microSD card, 2 10/100 Mb Ethernet ports, 2 RS-485 serial ports. Licensed for 25 Device/1,250 Point Limit. Includes standard open drivers. |
| J-8100 | JACE 8000 Controller, microSD card, 2 10/100 Mb Ethernet ports, 2 RS-485 serial ports. Licensed for 100 Device/5,000 Point Limit. Includes standard open drivers. |
| J-8200 | JACE 8000 Controller, microSD card, 2 10/100 Mb Ethernet ports, 2 RS-485 serial ports. Licensed for 200 Device/10,000 Point Limit. Includes standard open drivers. |
| JACE-8000 Non-Wi-Fi | Identical in form and function to standard JACE-8000 model without the Wi-Fi module and peripherals. |
| JEC-834 | JACE 8000 Equipment Controller with remote connected 34 point I/O module. Includes microSD card, 2 10/100 Mb Ethernet ports, 2 RS-485 serial ports and integration ready. Includes standard open drivers with 0 device & 0 point capacity. I/O module and Device expandable. |
| 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 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 |
| 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 |

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# JACE® 8000 ORDERING INFORMATION:
# VYKON ENTERPRISE SECURITY

## VYKON ENTERPRISE SECURITY ON THE JACE 8000

| Part number | Description |
| --- | --- |
| SEC-J8-32 | VYKON 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 VYKON ENTERPRISE SECURITY

| Part number | Description |
| --- | --- |
| SEC-R2R | Security module for 2 readers/access doors and 2 digital inputs |
| SEC-RIO | Security module with 8 supervised inputs, 8 relay outputs and 2 digital inputs |
| 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 VYKON Enterprise Security application on VYKON's website

The JACE 8000 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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