

Powerful and flexible platform for Niagara^{AX} DIN rail mounting with I/O expansion modules

Overview

The JACE 3E is a compact, DIN-rail mounting platform utilising the Niagara^{AX} Framework[®] for integration, control and web serving. Ethernet and serial comms ports are included as standard. Plug-in option cards enable additional comms ports and a GPRS modem option to be added into 2 expansion slots within the unit. Up to 66 points of directly wired input and outputs can also be added via DIN rail mounted I/O modules.

The JACE 3E is a member of Tridium's suite of controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. These products are powered by the revolutionary Niagara^{AX} Framework[®], the industry's leading software technology designed to integrate diverse systems and devices into a seamless system. Niagara supports a wide range of protocols including LonWorks[®], BACnet[™], Modbus, oBIX and Internet standards. The AX Framework also includes integrated network management tools to support the design, configuration, installation and maintenance of interoperable networks.

The JACE 3E enhancements include data recovery services for battery less operation and increased operating ambient temperature. Battery maintenance is no longer necessary when using data recovery services. However, the JACE 3E can still be installed with an optional battery and can provide up to 10 minutes of operation during power outages and disturbances if equipped.



Key features

- DIN rail mounting
- 2 x Ethernet, 1 x RS232 and 1 x RS485 ports
- Embedded PowerPC Platform@ 400MHz
- QNX Real-time Operating System
- Run stand-alone control, energy management and integration applications within the controller
- Supports open and legacy protocols
- Full network management of LonWorks[®] devices
- Plug-in I/O modules provide up to 66 points
- Optional plug-in cards for comms & GPRS modem
- Built-in Web Server provides rich graphical browser presentations
- Data Recovery Services prevents data loss during power interruptions
- Optional battery available for extended runtime

Optional Modules

2 slots are available for optional plug-in communications modules:

- LON FTT-10A
- Dual RS485
- RS232
- GPRS modem
- Z-wave

Plug-in DIN rail mounted modules:

- 16 point I/O – 8xUI, 4xAO, 4xDO
- 34 point I/O – 16xUI, 8xAO, 10xDO
- 24V PSU module



DIN rail mounted I/O modules plug into the JACE

Specifications

Platform:

- PowerPC 405ex 400 MHz processor
- 256MB SDRAM & 128 MB Serial Flash
- SRAM Data Recovery Service
- Real-time clock

Operating System:

- QNX Real-time Operating System
- Oracle Hotspot Java VM
- Niagara^{AX} 3.7.106 or later
- Niagara4 Ready

Chassis:

- Construction: Plastic
- Mounting: DIN rail or screw mount
- Cooling: Internal air convection

Communications:

- 2 Ethernet - 10/100Mb (RJ45 connectors)
- 1 RS232 (9 pin D-connector)
- 1 RS485 non-isolated (3 way 2 part connector)

Agency Listings:

- CE
- C-tick (Australia)
- UL 916
- RoHS Compliant
- BTL
- WSPCert
- FCC part 15 Class B
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"

Power Supply Options:

- 90-240Vac 50-60Hz universal plug-top PSU providing 15Vdc to the JACE 3E (Available with Europlug, UK or US plug types)
- DIN rail mounting PSU module: 24Vac/dc 50-60Hz @ 25VA (This PSU is integral with the ION34P NDIO module)
- One PSU required per JACE 3E and I/O module combination
- Optional battery pack provides up to 10 minutes of runtime during power outages and disturbances

Environment:

- Operating temperature range: 0°-60°C
- Operating temperature range: 0°-50°C with optional battery pack
- Storage temperature range: 0°-70°C
- Relative humidity range: 5% to 95%, non-condensing

ION16P - 16 Point NDIO Module:

- Up to 4 per JACE 3E or up to 2 per JACE 3E if combined with an ION34P NDIO module
- 8 Universal Inputs (Thermistor Type 3 (10kΩ), 0-10Vdc, Resistive 0-100kΩ or 0-20mA with external resistor)
- 4 relay outputs (Form A contacts, 24Vac @ 0.5A)
- 4 analogue outputs (0-10Vdc)

ION34P - 34 Point NDIO Module:

- Maximum of 1 per JACE 3E; includes integral 24V ac/dc input PSU for JACE 3E and I/O; no other power supply required
- 16 Universal Inputs (Thermistor Type 3 (10kΩ), 0-10Vdc, Resistive 0-100kΩ or 0-20mA with external resistor)
- 10 relay outputs (Form A contacts, 24Vac @ 0.5A)
- 8 analogue outputs (0-10Vdc)

How to Order

Product Code

Description

JCX320	24MB Java Heap memory. Resource count 400kRU max. Each driver max 8 devices and 100 points (EIB/KNX max 200 points, NDIO max 34 points)
JCX330	24MB Java Heap memory. Resource count 600kRU max. Each driver max 200 points (EIB/KNX max 500 points)
JCX340	24MB Java Heap memory. No license restrictions
JCX350	96MB Java Heap memory. No license restrictions
ION16P	NDIO module with 8 Universal Inputs, 4 Relay Outputs & 4 Analogue Outputs
ION34P	NDIO module & on-board 24V ac/dc input PSU with 16 Universal Inputs, 10 Relay Outputs & 8 Analogue Outputs
PMD24V	24V ac/dc to 15Vdc DIN rail mounting PSU.
JSBAT2UP	Battery pack with mounting frame
PMPEUP	90-240Vac to 15Vdc Wall adaptor PSU - Europlug 2-pin
PMPUKP	90-240Vac to 15Vdc Wall adaptor PSU - UK 3-pin
PMD2VA	90-240Vac to 15Vdc DIN rail mounting PSU – 20VA
PMD3VA	90-240Vac to 15Vdc DIN rail mounting PSU – 30VA
JOCLON	Lon adaptor option card
JOCGPR	GPRS modem option card
JOC485	RS485 x2 adaptor option card
JOC232	RS232 x1 adaptor option card
JOCZWW	Z-wave option card with antennae
GPREXT	2m extension cable and mounting bracket for GPRS modem option card

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