

Cost-effective, monitoring and control with GPRS

Overview

The M2M JACE is specifically designed for remote monitoring and control applications in smaller installations, particularly for retrofit to existing sites. It combines integrated control, alarming, data logging, scheduling, supervision and network management functions in a compact, wall mounting package. In addition to wired Ethernet and serial ports, there are 16 I/O points built-in, as well as a 230V PSU and an (optional) GPRS modem. The cable management features included make this a stand-alone device, reducing installation time and cost. The M2M JACE makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.



Key features

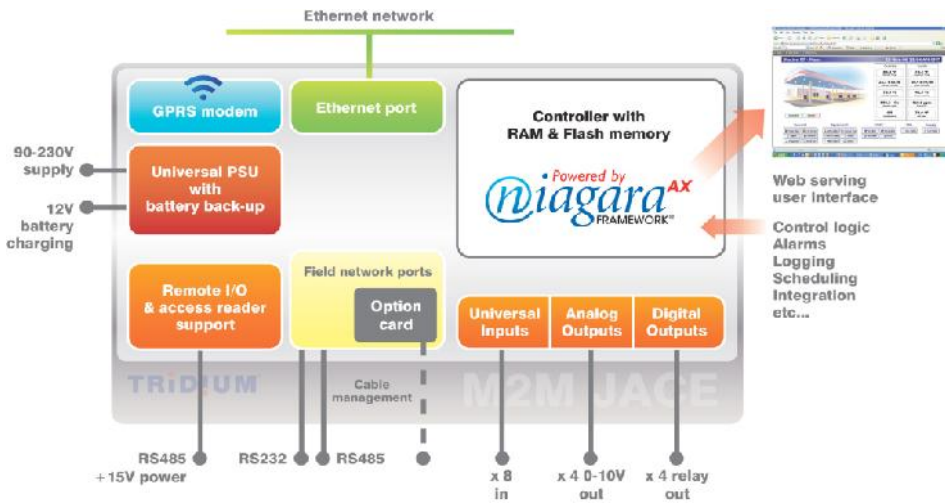
- Small compact wall-mount design with cable management is easy to install
- Embedded Power PC platform @ 250MHz running the Niagara^{AX} Framework
- Web User interface serves rich presentations and live data to a browser
- RS232 and RS485 communication ports
- Plug in communications card option slot
- Universal Mains power supply built in
- Onboard 16 points of I/O
- Optional GPRS Modem for remote internet access and alarm monitoring
- Supports open communication networks; LonWorks[®], BACnet[™], EIB/KNX-IP, Modbus, M-bus, SNMP, oBIX
- Full management of LonWorks[®] devices
- BTL[®] listed when BACnet driver is used – complies with B-BC (BACnet Building Controller)
- Built-in Web Server provides Graphical User Interface via Browser
- Different versions match different types and sizes of application

Applications

The M2M JACE is ideal for a wide range of applications. 16 on-board inputs and outputs are included for applications where local control is required, with additional I/O or third party devices connected via the serial and IP ports.

In small facility applications, the M2M JACE is all you need for a complete system; the M2M JACE serves data and rich graphical displays to a standard web browser via an Ethernet LAN or remotely over the Internet, or via the optional built-in GPRS modem.

In larger facilities, multi-building applications, and large-scale control system integrations, Niagara^{AX} Supervisor[™] can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of JACEs into a single unified application. The AX Supervisor can manage global control functions, support data passing over multiple networks, connect to enterprise level software applications, and host multiple, simultaneous client workstations connected over the local network, the Internet, or GPRS modems.



Specifications

Platform (NPM-2):

- PowerPC 405EP 250 MHz processor
- 128MB DDR RAM & 64 MB Serial Flash
- Battery back-up (5 minutes typical)
- Database storage and Real-time clock
- 3 month battery back-up

Operating System:

- QNX Real-time Operating System
- IBM J9 Java Virtual Machine
- Niagara^{AX} 3.4 or later

Chassis:

- Construction: Plastic
- Mounting: Screw mount
- Cooling: Internal air convection
- Wiring access holes provided at top and bottom of case and via knockouts on base for hidden wiring

Communications:

- 2 Ethernet ports: 10/100Mb (RJ45 connectors)
- 1 RS232 port: (RJ45 connector)
- 1 RS485 isolated port: (2 part connector)
- GPRS modem is a factory installed option

Agency Listings:

- CE
- BTL
- RoHS Compliant

Power Supply:

- 90-240Vac 50-60Hz

Environment:

- Operating temperature range: 0°-50°C
- Storage temperature range: 0°-70°C
- Relative humidity range: 5% to 95%, non-condensing
- Enclosure rating: IP40 (designed for indoor spaces)

Optional internal plug-in Communications Cards:

- One from: LON FTT-10A or Dual RS485 or RS232

On-board Inputs and Outputs (NRIO driver network):

- 8 Universal Inputs:
 - Type 3 (10k) Thermistor. Input accuracy: +/-1% span
 - Other types may be supported by entering custom non-linear curve interpolation points for each non-linear input
 - 0-10Vdc (accuracy: +/- 2% of span without user calibration)
 - 4-20mA (accuracy: +/- 2% of span, without user calibration) Uses externally connected resistor for current input (provided) Self-powered or board powered sensors (24Vdc available)
 - Volt free contact: 300µA short-circuit current. Pulsing dry contact up to 20Hz: 50% duty cycle
- 4 Digital Outputs:
 - Form A relay contacts; suitable for on/off control only (no floating control). Maximum load voltage 30Vac/dc @ 0.5A maximum current rating per contact
- 4 Analogue Outputs:
 - 0-10Vdc signal, @ 4mA max drain (controlled load must have resistance of 2,500 or higher)

How to Order

| Without GPRS | With GPRS | Description |
|--------------|-----------|--|
| JHX216 | JGX216 | M2M (NPM-2): 16MB Java Heap memory. Resource count 350kRU max. Each driver max 8 devices and 100 points (EIB/KNX max 200 points, NRIO max 16 points) |
| JHX236 | JGX236 | M2M (NPM-2): 16MB Java Heap memory. Resource count 450kRU max. Each driver max 200 points (EIB/KNX max 500 points) |
| JHX246 | JGX246 | M2M (NPM-2): 16MB Java Heap memory. No license restrictions |
| JHX256 | JGX256 | M2M (NPM-2): 48MB Java Heap memory. No license restrictions |
| JOC LON | | LON adaptor option card |
| JOC485 | | RS485 x2 adaptor option card |
| JOC232 | | RS232 x1 adaptor option card |

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