JENEsys® PC8000

The JENE-PC8000 is a compact, embedded IoT controller and server platform for connecting multiple devices/sub-systems.

With Internet connectivity and Web-serving capability, the JENE-PC8000 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 JENE-PC8000 controller is simple and features standard drivers along with optional I/O and field bus expansion modules for flexibility. This controller runs Niagara 4 for optimal performance.

JENEsys Edge® 534 IP Controller

Delivering the Reliability of Niagara to the Edge

A first-of-its-kind, the JENEsys Edge® 534-N4 combines a fully programmable controller that leverages Niagara, provides 34 points of IO on-board, and web server duties into a single device. Taking Niagara to the edge with real-time control; JENE-EG534-N4 *utilizes ProBuilder/Workbench software, Niagara programming tools and Fox Protocol.*

Reduce Engineering Time & Installation Costs

Purpose-built, Lynxspring's JENEsys Edge 534 delivers edge connectivity, data access and control for small to mid-sized facilities, plant control, and machine-to-machine and IoT applications that require smart edge technology.

JENEsys Edge 534-N4 licensing is well suited to take Niagara into smaller, mid-sized and price-sensitive applications.

Note: Add to a JENE-EG534-N4, up to 8 additional Onyxx XM 34IO Extender Modules *(at 34 points of IO each)* for a maximum of 306 points.

JENEsys Edge® 534 – 4G LTE

With Modem and Wireless Communications

All the power and benefits of the JENEsys Edge 534 with the added benefits of 4G LTE wireless capability and the availability of the E2E Easy Data Service Plan over Lynxspring's E2E private wireless network.

- Fully programmable Niagara 4 Controller (Full Stack)

- High-speed 4G LTE connection; fast data exchange speeds NimbeLink's Skywire® LTE CAT 1 embedded cellular modem

- Simplified configuration and deployment–includes a user interface Widespread service coverage

- Secured cellular connection via VPN

- Leading cellular modem manufacturer and service provider

niagara⁴

JENEsys Edge® 534 with Monnit® Sensors

Data collected from the sensors stays local to the JENEsys Edge 534-N4

Monnit Sensor Features

- Easy Set-Up

- Long Life

- Low Cost, Low Power

- No Monnit Gateway Required   No Cloud Services

- Required Global RF Frequencies *(900, 868 & 433 MHz)*

Lynxspring supports the following

- Temperature

- Ultrasonic Vibration

- Dry Contact

- Pulse Counters

- Accelerometers

- Voltage Detection

- Water Detection

niagara⁴

MONNIT.

JENEsys Edge® 514 IP Controller

The JENEsys Edge 514 is a fully programmable Niagara controller with 14-IO already built-in and has expandable IO available. Taking Niagara to the edge with real- time control—it utilizes the same familiar ProBuilder/Workbench software, Niagara programming tools and Fox protocol.

- Real-time Linux OS
- Open NiCS
- Existing Niagara 4 stations can be added
- 6 Universal Inputs, 4 Analog Outputs, 4 Digital Outputs
- Add additional extender modules *(at 34 points of IO each)*

JENEsys Edge® 414 IP Controller

- Fully programmable Niagara 4 controller with 14 points *(Inputs and Outputs)*
- Ideal for terminal equipment control that requires minimal integration with third-party products (max 3) and minimal points of control (max 50).
- 4 Digital Output (DO) relays, 6 Universal Inputs (UI) and 4 Analog Outputs (AO)
- N4 Embedded Software
- N4 License that supports 50 points and 3 devices
- N4 Software Maintenance for Life included with the license
- Supports Spanning Tree Protocol *(supports up to 25 controllers on a single Spanning Tree IP Protocol Network)*

2900 NE Independence Ave
Lees Summit, MO 64064
sales@lynxspring.com
(816) 347-3500

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JENEsys Edge® IP VAV Controller

The JENEsys Edge® VAV Controller is a fully programmable, IP, Niagara Framework® VAV controller with 14-IO already built-in and one differential press transducer. Using Fox protocol at the IP level provides an additional level of security and enables facility managers/ system integrators to use *(ProBuilder/Workbench)* to achieve operational efficiencies between multiple systems and/or devices.

- Integrated pressure transducer
- No protocol conversions necessary
- 6 UIs, 4 AOs, 4 DOs, and 1 Differential Pressure Input
- Niagara license up to 50 points
- Factory applications are compliant with ASHRAE® G36 Standardized Sequences
- Distributed Fox IP network, up to 25 VAVs can be daisy-chained

Onyxx® XM 34IO Extender Module

Completely configurable, the Onyxx® XM 34IO is used to add additional IOs to the JENEsys Edge® 534 & 514 Controllers, as well as Lynxspring's JENEsys® PC 8000 or any branded JACE.

The Onyxx XM 34IO has 34 points and native Onyxx and extends the IO for any device that has an Onyxx network.

Note: Add to a JENE-EG534, up to 8 additional Onyxx XM 34IO Extender Modules *(at 34 points of IO each)* for a maximum of 306 points.

2900 NE Independence Ave
Lees Summit, MO 64064
sales@lynxspring.com
(816) 347-3500

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Onyxx® XM 34IO-B (BACnet MS/TP)

Extender Module

The Onyxx XM 34IO-B, part of Lynxspring's Edge Enabled® portfolio of embedded controllers and extender modules, is a modular, IO extender module that extends the control functionality and capabilities of Niagara 4-based controllers by extending 34 inputs and outputs (IO).

Use Cases

It is designed to work with any Niagara 4 JENEsys® PC 8000 controller, Niagara 4 JACE® brand controller, Niagara 4 JENEsys Edge® 534, JENEsys Edge® 534 Monnit®, JENEsys Edge® 534 4G LTE and JENEsys Edge® 514 controller. Additional Onyxx XM34IO-B extender modules can be daisy chained in sequence to provide even more expanded IO.

Feature

- Extends 34 Points of Inputs/Outputs to BACnet Controllers
- Slave BACnet MS/TP device can be integrated by a BACnet client controller.

BACnet MS/TP

BACnet MS/TP

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Lees Summit, MO 64064
sales@lynxspring.com
(816) 347-3500

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Onyxx® 4G LTE™ Cellular Router

The Onyxx® 4G LTE Cellular Router (CE121-4GLTE) is designed to support bi-directional communication, secure, remote access, and the exchange of data for today's intelligent buildings, energy management systems, machine-to-machine applications, edge devices and Cloud services.

It has been designed for simple set-up, installation, commissioning, and includes a wireless modem interface allowing instant communication upon startup.
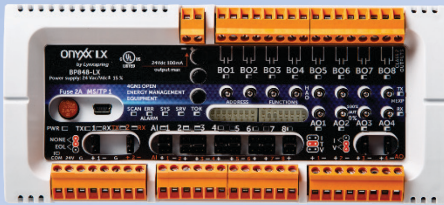
The Onyxx 4G LTE Cellular Router allows you to remotely monitor and control equipment, meters, pumps, and valves in any energy, utility, commercial or industrial applications. You may instantly connect equipment at remote point-of-sale locations, temporary installations, or retail operations. You may also have access to building and energy assets via a secure VPN.

Onyxx® Modbus to BACnet Bridge

Lynxspring's Helixx® framework embedded on the Onyxx® Modbus to BACnet Bridge has revolutionized the construction, implementation, and interaction of Modbus to BACnet network communication. Helixx translates up to 2500 Modbus points to manageable BACnet points; converting Modbus slave devices into virtual BACnet devices using virtual BACnet routing. Acting as the Master Modbus device, Helixx manages all Modbus RTU or TCP slave devices connected to it.

- Modbus Serial (RTU) to BACnet IP, Modbus TCP to BACnet IP, or *both* Modbus Serial (RTU) and Modbus TCP to BACnet IP.

- Bridge models available in capacities of 1000 or 2500 Modbus points to BACnet points.

- Converts any Modbus device to a virtual BACnet device

- Supports maximum of 2500 Modbus points, 32 Modbus RTU slave devices without a repeater or up to 246 with repeaters, 246 Modbus TCP slave devices per network segment, or a combo thereof.

Onyxx® B848 LX, Onyxx® BP848 LX & Onyxx® BP848-DIO-LX

These controllers are designed to facilitate control and management of equipment typically used in the HVAC industry. They allow powerful yet flexible solutions that can be tailored and sized according to any project need.

Features

- Supports BACnet MS/TP
- Has 8 AI/BIs, 4 AOs, & 8 Bos *(with local HOA switches for the outputs*)*
- BTL certified as a B-ASC *(BACnet Application Specific Controller)*
- Supports up to 3 TZ100-LX or TZ200-LX room sensor Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

Local HOA switches only applicable to the BP848-LX and BP848-DIO-LX

Onyxx® BZ122-LX

This controller is designed to facilitate control and management of simple VAV equipment typically used in the HVAC industry. It allows powerful yet flexible solutions that can be tailored and sized according to any project need.

Feature

- Supports BACnet MS/TP
- Has 1 AI/BIs, 2 AOs, & 2 BOs
- Uses a pre-calibrated, precise digital MEMS Omron flowthrough airflow sensor
- BTL certified as a B-ASC *(BACnet Application Specific Controller)*
- Supports up to 3 TZ100-LX or TZ200-LX room sensors
- Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

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Lees Summit, MO 64064
sales@lynxspring.com
(816) 347-3500

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Onyxx® BZ424-LX

This controller is designed to facilitate control and management of various VAV equipment typically used in the HVAC industry. It allows powerful yet flexible solutions that can be tailored and sized according to any project needs.
Single or dual duct, with or without fan.

Features

- Supports BACnet MS/TP

- Has 4 AI/BIs, 2 AOs, & 4 BOs

- Uses a pre-calibrated, precise digital MEMS Omron flow through airflow sensor

- BTL certified as a B-ASC *(BACnet Application Specific Controller)*

- Supports up to 3 TZ100-LX or TZ200-LX room sensors

- Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

Onyxx® DPT-V4-LX

The DPT-V4-LX is a high precision, maintenance free high pressure/velocity transmitter. This "MEMS" type transmitter offers very high precision and stability at low velocity levels.

Features

- Allows pressure reading *(0-1 in. water / 0-250 PA)* or the velocity

- Liquid crystal displays the pressure or the flow in real time (with the conduit surface)

- New dust segregation chamber technology eliminates servicing

- Easy and intuitive installation and configuration

- Configurable output: 0-10 Vdc / 0-20 mA or 2-10 Vdc / 4-20 mA

- Multiple units available: Pressure: "H2)_PA, Velocity: ft./min_M/sec, Flow: CFM_L/sec

- Removable screw terminals

2900 NE Independence Ave
Lees Summit, MO 64064
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(816) 347-3500

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Onyxx® BW437-FCU-LX and Onyxx® BW437-RTU-LX

These controllers are designed to facilitate control/management typical of the HVAC industry. They allow powerful, flexible solutions that can be tailored and sized according to any project needs. This very flexible I/O feature set is capable of meeting market industry terminal equipment control.

Features

- Factory-delivered pre-loaded with powerful low voltage FCU, RTU, HP & AHU controller application
- Supports BACnet MS/TP
- Has 4 AI/BIs, 3 AOs, 6 BOs plus 1 jumper-selectable universal AO/BO
- Options include humidity sensor, temperature sensor, motion sensor, & PIR & CO2 sensing Certified as a B-ASC *(BACnet Application Specific Controller)*
- Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

Onyxx® TZ100-LX and Onyxx® TZ200-LX

These sensors are designed to facilitate simple user interactions typically used in the HVAC industry for terminal equipment control. They allow powerful yet flexible solutions that can be tailored and sized according to any project need.
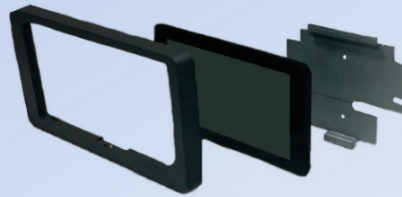
Features

- Room user digital IAQ sensor complementary to the controllers from the Onyxx LX product line
- Displays user data and information such as time, temperature, and requests for heating and cooling through a backlit LCD display
- Communicates to the controllers using a proprietary RS-485 protocol. Up to 3 TZ100-LX or TZ200-LX room sensors per controller can be wired when used with the Onyxx LX controllers Has a local BACnet MS/TP USB port for network access
- Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

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sales@lynxspring.com
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Ethernet or Wi-Fi

HTML5
Any Web Serving Lynxspring Controller
(JENE PC8000)

7" Android™ Touch Screen Display

Lynxspring's TSD 7 is a high-definition touch screen color display with kiosk mode for local feedback and control for a wide range of HVAC, lighting, energy, commissioning, trouble shooting, servicing and IoT user experiences.

It is compatible with all JENEsys controllers, Onyxx devices and most web-serving controllers and IoT devices, regardless of manufacturer or protocol *(including Niagara AX and N4).*

Designed for optimal performance, the Lynxspring TSD 7 utilizes an advanced processor to integrate a powerful graphics engine that displays most any webpage, including advanced HTML5 visualization pages. It is ideal for managing operating parameters of systems, such as monitoring, obtaining values, equipment, and system status, and viewing alarms.

10" Android™ Touch Screen Display

Lynxspring's TSD 10 is a high-quality touch screen display that may be panel or wall-mounted and is compatible with modern web- serving BMS controllers.

Its 10-inch screen is the ideal size for displaying detailed content, with easy user interaction, but still a convenient size to mount on a BMS panel or walls.

This cost-effective display and touch panel is ideal for: status feedback and maintenance control on the front of your BMS panel, occupant feedback and controls on property, visual output status of web-based CCTV and IoT systems. Web-browser based for universal compatibility with modern BMS controllers, and potentially any web serving content controller/platform.

2900 NE Independence Ave
Lees Summit, MO 64064
sales@lynxspring.com
(816) 347-3500

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