WZZARD™ ENERGY MONITORING APPLICATION BUNDLE

WSKIT3BE-NRG

Is Your Energy Monitoring System Up to the Task?

Monitoring energy usage by individual machines and systems is a vital tool for both cost control and preventative maintenance. But what about the Energy Monitoring system itself? It can't do its job unless it is highly scalable, long range, easy to deploy, and rugged enough for industrial environments. The Wzzard™ Energy Monitoring Application Bundle addresses all of these issues.

Ease of Use

Wzzard is ready to go right out of the box. Connect your sensors to your wireless Wzzard Intelligent Edge Nodes, mount your nodes wherever it's convenient, configure your nodes via Bluetooth LE, and turn on your Spectre Network Gateway. There is no need for a site study, no need for any complicated integration, and no need for expensive installations or cabling. You can install a Wzzard sensor network virtually anywhere, and at a moment's notice.

- Wzzard Intelligent Edge Nodes can be flange mounted, or mounted with their powerful internal magnets.
- You can connect your sensors to the nodes via conduit or prewired m12 cable.
- Wzzard Intelligent Edge Nodes can be locally powered or self-powered using two lithium AA batteries.
- Low maintenance, multiyear operation on battery power.
- Wzzard eliminates the need for long cable runs.

Reliability

Wzzard nodes and network gateways are built for rugged industrial environmnts. You can deploy them anywhere your network needs to go.

- Wide temperature specifications and a rugged industrial design.
- Robust network security and VPN tunneling.
- Customizable through installation of software plug-in modules from the B+B library. Users can also create their own with common LINUX commands and scripts.
- Remote diagnostics, automatic restart, hardware watchdog.
- Wireless mesh networks provide "five nines" (99.999 percent) uptime.
- Limited lifetime warranty.

Scalability and Range

The flexible Wzzard platform lets you add new sensors to your network any time, even if those sensors would be out of range of other solutions.

- Wzzard Intelligent Edge Nodes form self-healing wireless mesh networks.
- Every node has routing capabilities, providing multiple data paths to the gateway.
- Wzzard nodes automatically create an alternate path to the network gateway if a node is disconnected. Individual nodes don't need to be within direct range of the network gateway. They can route their data across fellow nodes.
- Nodes can be deployed up to eight hops away from the network gateway.
- New nodes and sensors can be added or subtracted at any time. They will automatically join the network.
- Up to 32 Wzzard Nodes and 96 individual sensors can be deployed in a single mesh network.
- Range is up to 100 meters indoors and up to 1000 meters outdoors.

ADVANTECH **B+B SMARTWORX**

What is Wzzard?

The Wzzard platform uses wireless Wzzard Intelligent Edge Nodes and the Spectre Network Gateway wotk together to create a wireless sensor network.
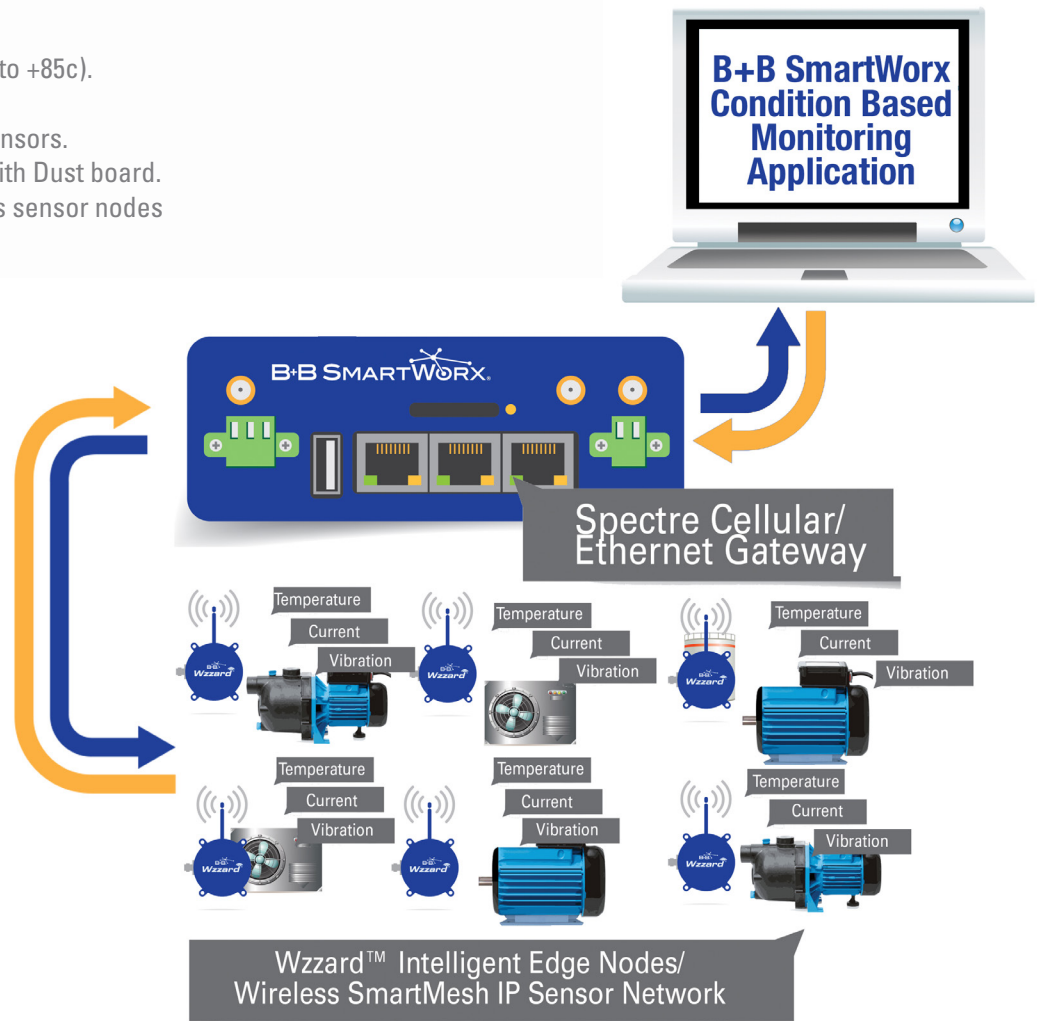
- The wireless Wzzard Intelligent Edge Nodes connect to your sensors and send the data to the gateway via wireless mesh networks.
- The edge nodes convert your sensor data to the publish/subscribe MQTT format, making it available to multiple applications on your network or in the cloud.
- The nodes can be configured to report only the data that has exceeded preconfigured thresholds, greatly reducing network traffic.
- The Spectre Network Gateway aggregates the data from the Wzzard mesh networks and securely sends it to your dashboard.

Included Hardware

- (3) Wzzard™ WSD2CA3 Industrial (-40c to +85c).
  WSD2CJA (2 Thermocouple in, 2 AI).
  Each node supports up to 3 attached sensors.
- (1) ERT351 Ethernet network gateway with Dust board.
  (One gateway supports up to 32 wireless sensor nodes and up to 96 attached sensors).
- (6) J Type Thermocouples.
  (JWT0 10 0GT 06 S0 -- Therm X)
- (3) 250A Clamp On Current Sensors.
  (JC24S250-V -- J&D)
- (3) Vibration 4-20 ma sensors.
  (LP252-2R2-1D -- Sun Infrared)
- (3) Vibration cables.
  (CB111-A2R-010-Z -- Sun Infrared)
- (3) 250 ohm resistors. (1/4W).
  (Digikey part 1135-1559-MIL)

Included Software

- One copy Window PC-based SmartWorx Energy Monitoring Platform software.
- Real time data display, selectable between Amps, KW, dollar cost.
- Historian Trending.
- User programmable thresholds limits.
- Visual and email/SMS alerts.
- 3rd party SaaS platform support.

B+B SmartWorx Condition Based Monitoring Application

Spectre Cellular/ Ethernet Gateway

Temperature / Current / Vibration

Wzzard™ Intelligent Edge Nodes/ Wireless SmartMesh IP Sensor Network

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