E-Control Systems, Inc.

IntelliSense™ Family of Wireless Sensors

Intelligent Monitoring At Your Fingertips

General Description

The IntelliSense™ Family of products is a low cost, feature rich line of hardware and software, used to wirelessly monitor an assortment of sensor types. The sensor data is measured by a battery powered IntelliSensor™ (which can accommodated up to 4 inputs), and transmitted wirelessly to the IntelliGate™. The IntelliGate™ unit temporarily stores and processes all of the data from the IntelliSensor™ units and transmit the received data over Ethernet or Wireless Ethernet (WiFi) using the IntelliGates™ built-in web server. The data can be viewed with a standard web browser or relayed to Raptor Web Software™ for Enterprise Wide Data Mining applications.

IntelliSensor™ units incorporate a 12-bit A/D Converter for accurate measurements of a wide variety of sensors. The IntelliSensor™ uses 128-bit AES encryption to transmit sensor data periodically based on a time or change in the value of a sensor reading (ΔT).
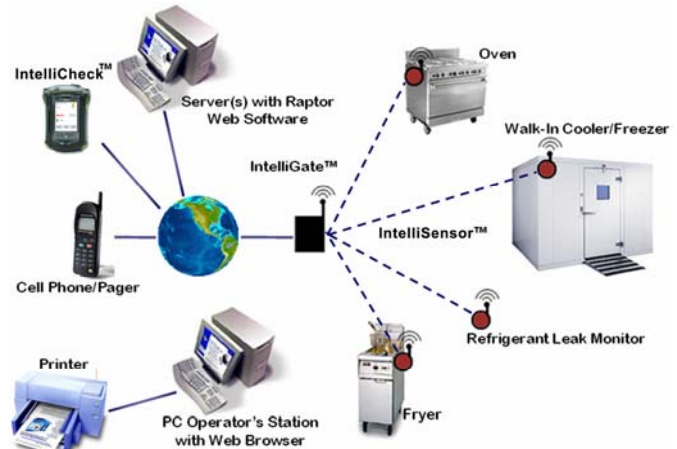
Multiple IntelliSensors™ can communicate with one IntelliGate™ at distances of up to 1 mile.

E-Control Systems IntelliCheck™ is a web-based handheld PC solution for managing and deploying HACCP and inspection programs for the Food Service industry and many school specific applications. Operators push a single button to perform temperature readings or checklists and IntelliCheck™ will do the rest.

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Typical Network Diagram

**IntelliSensor™ Unit
(4 Input Version Shown)**

**IntelliGate™ Unit
(Ethernet Version Shown)**

NAFEM DATA PROTOCOL COMPLIANT

Applications

Typical applications include, but are not limited to: food service (where the IntelliSensor™, IntelliGate™ and IntelliCheck™ units can assist in monitoring and preventing HACCP violations), heating, cooling, refrigeration, HVAC, medical, and industrial. Multiple IntelliSensor™ units can communicate to a single IntelliGate™ Wireless Receiver for local data and alarm storage. IntelliSensors™, IntelliGates™, IntelliCheck™ and Raptor Web Software combine to create a full and complete data acquisition system.

Features

General IntelliSense Family Features:
- No PC needed at the monitored site to operate the system
- Hosting option by E-Control Systems means no software needed
- Purchase option means no reoccurring monitoring fees
- Have a fully integrated PDA using the same Raptor Web Software™ platform
- The System is fully NAFEM Data Protocol Compliant
- Same RWS software used to monitor temperature and operation of equipment in the kitchen
- Collects data from system bypassing local firewalls
- Ideal for self installation
- Customization of Hardware/Software for large OEM customers
- Supports Meshed Network topology for increased range
- Encrypted communications

IntelliSensor™ Unit Features:
- Up to 4 inputs (Temperature, Door, Humidity, 4-20ma, 0-5VDC, etc.) connected to a single IntelliSensor™
- Up to 10 year battery life
- Small Size measuring 3.290" x 2.420" x 1.000"
- Built in Temperature and Humidity Sensors (optional)
- NIST Certified Sensor Readings (Optional)
- Reverse polarity protection on battery to protect internal circuitry during battery installation
- Advanced data encryption and multi-level password support throughout the system
- Conformal coating on all products for water resistant applications
- User configurable transmission rate
- Flame retardant ABS plastic enclosure with mounting flanges
- Industrial Temperature Rating
- CRC error checking on all data packets for reliable connection

IntelliGate™ Unit Features:
- Can connect to the network via Ethernet or Wireless Ethernet (WiFi)
- Built-in dual sensor input, saves an additional wireless sensor.
- Has one dry contact output for connection to external building management or alarm system
- Advanced data encryption and multi-level password support throughout the system
- Built-in Web Server to display current and past sensor data and alarms
- Can push XML data to Enterprise Server(s)
- Conformal coating for water resistant applications
- Flame retardant ABS plastic enclosure with mounting flanges
- FCC, IC, and CE agency certified for worldwide operation
- Industrial Temperature Rating
- CRC error checking on all data packets for reliable connection