Audacy HVAC Solutions

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AUDACY® HVAC SOLUTIONS

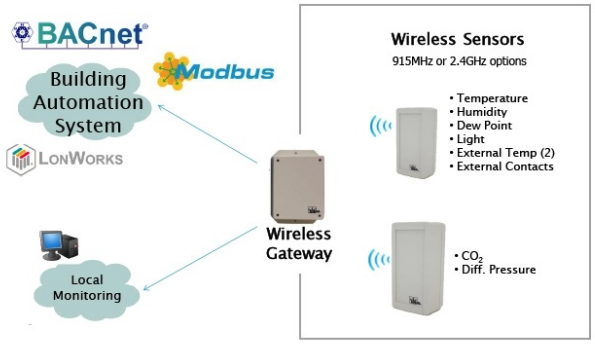
Sensor input is vital for proper control and operation of HVAC systems. Our wireless technology greatly reduces the installation cost for sensors, enables rapid deployment, and overcomes construction obstacles that can make tradition wired solutions impossible.

Overview Presentation

System Overview

IDEAL wireless sensors can be configured off-site and deployed in minutes at the project site, reducing install time and costs.

The system is designed to support several applications, including: HVAC control, lighting control, remote monitoring, industrial automation, and medical compliance



Applications

HVAC Control

Sensor input is vital for proper control and operation of HVAC systems. Wireless technology greatly reduces the installation cost for sensors, enables rapid deployment, and overcomes construction obstacles that can make wiring impossible. IDEAL wireless sensors can be configured off-site and deployed in minutes at the project site, resulting in reduced installation costs and minimal occupant disruption. Specific transmitter types for HVAC systems include wall-mount temperature, temperature with external probes, humidity, CO2, open-close, and pressure.

Lighting Control

Lighting accounts for a significant portion of overall energy consumption in commercial buildings. The ability to measure light levels is an important parameter for controlling and optimizing light output. Daylight harvesting, or daylighting, can be used to reduce the amount of light output from overhead fixtures. IDEAL light sensors measures lux values which can be used as input to a wide variety of lighting systems for on/off and dimming control.

Remote Monitoring

Remotely monitoring and data logging of environmental conditions and equipment status can lead to operational efficiencies, energy savings, and reduced downtime. IDEAL solution, used in conjunction with 3rd party monitoring partners, provides an automated solution to remotely monitor sites and equipment. Real-time

email and text message alerts can notify staff when operating parameters exceed the desired range, and data logging can be used for trending or predictive maintenance. MORE

Industrial Automation

Monitor plant assets, equipment status, and production materials with maintenance-free wireless sensors. The cost for wiring or battery replacement in facilities with high labor rates or hazardous environments can be very expensive, even cost prohibitive. IDEAL technology enables facility and plant monitoring with zero or minimal maintenance. Wireless monitoring enables you to go from monthly visits with clipboards to receiving automated electronic data every minute for detailed data logging and trending. Equipment failure can be better predicted to reduce system or production downtime.

Medical Compliance

As additional compliance measures (e.g. JHACO) are required of hospitals, staff can become overburdened with documenting routine measurements. Manual processes and documentation are subject to human errors and the data is typically not capable of being used for real-time alerting or long-term trending. When medications or medical samples are out of safe storage temperate ranges, these items need to be discarded for safety purposes and the loss can be a significant expense.

IDEAL's solution, when used in conjunction with 3rd party monitoring, provides an automated way to collect critical environmental data from a range of sensitive equipment such as refrigerators, freezers, and blanker warmers. Environmental data is logged automatically and stored on secure servers. Compliance reports can be generated weekly or monthly, and real-time email and text message alerts can notify staff when environmental parameters exceed the desired operating range.

Wireless Transmitter

Battery-powered Wireless Transmitters

- 25+ years of operation on a single battery
- No wires to install
- No battery replacement during typical lifetime
- Flexibility and fast installation of wireless
- Longevity and predictability of wiring
- As small as 4" x 2"" x 1"

The 1201 (915MHz) and 1101 (2.4 GHz) series wireless transmitters provide unmatched performance in terms of battery-life, which results in non-stoop operation and reduced maintenance cost. Once activated, these devices will reliably transmit data at fixed intervals for 25+ years with a pre-installed battery or 15 years with replaceable batteries. Configuration and deployment is fast and simple enabling usage for permanent or portable applications.

Type	915 MHz System	2.4 GHz System	Description
Temperature (inside unit)	58-N-1201-T-N	58-N-1101-T-N	Temperature – ±1°F (50 - 90°F)
	58-N-1201-T-R	58-N-1101-T-R	
Temperature (external probe)	58-N-1201-TX-N	58-N-1101-TX-N	Temperature with 2 external inputs (10K Type 2)
	58-N-1201-TX-R	58-N-1101-TX-R	

Type	915 MHz System	2.4 GHz System	Description
Humidity	58-N-1201-TH-N	58-N-1101-TH-N	Temperature, Humidity and
	58-N-1201-TH-R	58-N-1101-TH-R	Dew Point
Light	58-N-1201-L-N	58-N-1101-L-N	Light level (lux)
	58-N-1201-L-R	58-N-1101-L-R	
Contact Closure	58-N-1201-T-N	58-N-1101-T-N	Contact Closure / Digital
	58-N-1201-T-R	58-N-1101-T-R	Input (2 channels)

CO2, Differential Pressure

The IDEAL Wireless 1202 (915MHz) and 1102 (2.4GHz) series CO2 Sensor is a battery-powered indoor air quality (IAQ) sensor for HVAC monitoring and control, energy savings, and occupant safety. The sensor is self-calibrating and has an adjustable measurement interval. It is wall mountable, and has a battery life up to 15 years. Configuration and deployment is fast and simple enabling usage for permanent or portable applications.

The Wireless 1202 (915MHz) and 1102 (2.4GHz) series Differential Pressure Sensor is a battery-powered sensor for HVAC control. The sensor requires no calibration and has an adjustable measurement interval. It can be mounted to a flat surface, in any vertical orientation without compromising accuracy, and has a battery life up to 15 years.

Type	915 MHz System	2.4 GHz System	Description
Carbon Dioxide (CO2)	58-N-1202-CO2-R	58-N-1102-CO2-R	0 - 5000 ppm CO2
Differential Pressure	58-N-1202-DP1-R	58-N-1102-DP1-R	±2" W.C. / ±500pa - 1.0pa res

Wireless Receiver

Wireless Gateway / Repeater

- Receives data from up to 100 transmitters
- Connects to BAS networks, IT networks, or cloud monitoring services
- Redundancy-capable for mission critical systems
- Signal repeater for extended range
- Integrated, internal antenna

Network Interfaces and Protocols

Ethernet: BACnet®/IP, Modbus TCP, Ethernet/IP, Omron FINS, DNP3, SNMP, XML

RS-485: BACnet®/MSTP, Metasys® N2, Mopdbus RTU, DNP, YorkTalk, Allen Bradley DF1

FTT-10: LonWorks®

Others may be available, contact IDEAL for more information.

25 Year Test Report

Audacy Support Line

1-800-273-9989

System Overview Presentation

Download:"IDEAL Wireless Sensor System Overview"

Product Documents

IDEAL Wireless Sensor System Overview

915MHz Devices

Datasheet – 58-G2 Series Gateway Spec Sheet
Datasheet – P-5172 1201 Series Wireless Sensor Spec Sheet
Datasheet – P-5172 1201 Series Wireless Sensor Spec Sheet
Datasheet – P-5186 1202-DP Wireless Sensor SpecSheet

2.4GHz Devices

Datasheet – G1 Series Gateway Spec Sheet
Datasheet – P-5173 1101 Series Wireless Spec Sheet
Datasheet – P-5176 1102-C02 Wireless Spec Sheet
Datasheet – P-5185 1102-DP1 Wireless Spec Sheet

User Manuals

P-5205 Wireless Sensor Setup Mounting Guide
P-5206 Wireless Sensor Network Config Guide
P-5207 WirelessSensor Users Manual
P-5358 Wireless Sensor Replacement

Calibration

P-5357 Humidity Sensor Calibration
P-5359 CO2 Sensor Calibration
P-5360 Temp Sensor Calibration
P-5361 Diff Pressure Sensor Calibration

Whitepapers

25+ Year Battery Life Test Report
P-5188 DataCenter

Software

Gateway Windows USB Driver
HyperTerminal
ModScan32

ModScan64

Configuration

Gateway SNMP MIB file