

Reduce Energy Costs by 20% to 35%

ADRES - Auto Demand Response and Energy Savings Solution Designed for Light Commercial Buildings and Facilities.

Specifications

Applicable Equipment

Heating System:
Gas / Electric or Heat Pumps with either O or B type reversing valves.

Cooling System:
Electric air conditioners or heat pumps with either O or B type reversing valves.

Stages:
Single or up to 4-stage heating and cooling units.

Type of System:
Packaged, split gas/electric, air or water source heat pumps, gas space heaters, side mounted or rooftop.

Indoor Fan: Single or VFD.
Economizer: Advanced economizer logic.

Operating Modes

Heating and Cooling:
Heat or cool only, automatic changeover or both off. Manual or programmed temperature control.

Indoor Fan Control:
Automatic, continuous, timed or cycled 4 to 60 minutes per hour.

Programmable Operation
Temperature Control:
Four program schedules per day for heating and cooling setpoints.

Fan Operation:
Single or VFD with Separate On and Off times.

Holiday Periods:
Up to twelve separate holiday periods with start and stop dates.

System Characteristics:
Optimized On-to-Off temperatures for each stage, minimum unit (On) run time and short cycle (Off) time, economizer operation, indoor fan operation, room temperature sensor override of scheduled temperature set-points and times.

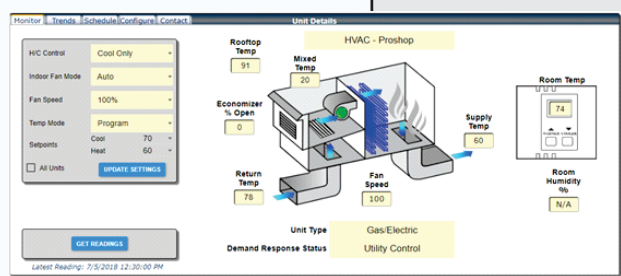
Display and Control
All control, performance and alarm data can be entered or displayed through the ADRESpro web site.

Operating Voltage
Powered by the 24VAC within the HVAC system. Replaceable battery maintains clock during power outage. Energy data, programs and HVAC parameters are stored in non-volatile memory to prevent loss of data during power outages.

Installation
Installs using existing thermostat wiring for the room temperature sensors, two wire connections to each supply, return and rooftop temperature sensor. Wireless communication is all built-in to the ADRES controller.

For Additional Information Contact:

Internet Accessible through Secure Cellular Connection



Access the secure ADRESpro website using any Internet browser.

Program, monitor and control the ADRES Controller using our private cellular communication network.

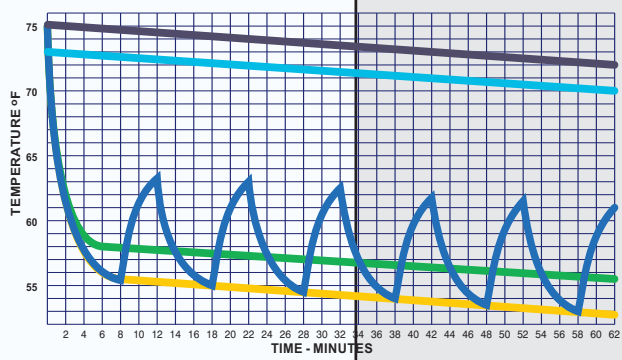
Monitor alarms from any Adres controlled system and detect equipment failures or issues.

Control Features

The ADRES Controller can be used to control HVAC, lighting and refrigeration systems with energy saving features such as 7-day time / temperature programs, intelligent fan control, vacation scheduling and our exclusive supply air reset and advanced digital economizer control energy saving features.

Monitor Features

The Adres Controller monitors all HVAC equipment either sequentially or individually. System parameters such as operating status, room temperature, supply air temperature and outdoor air temperatures and humidity are displayed in the ADRESpro Interface.

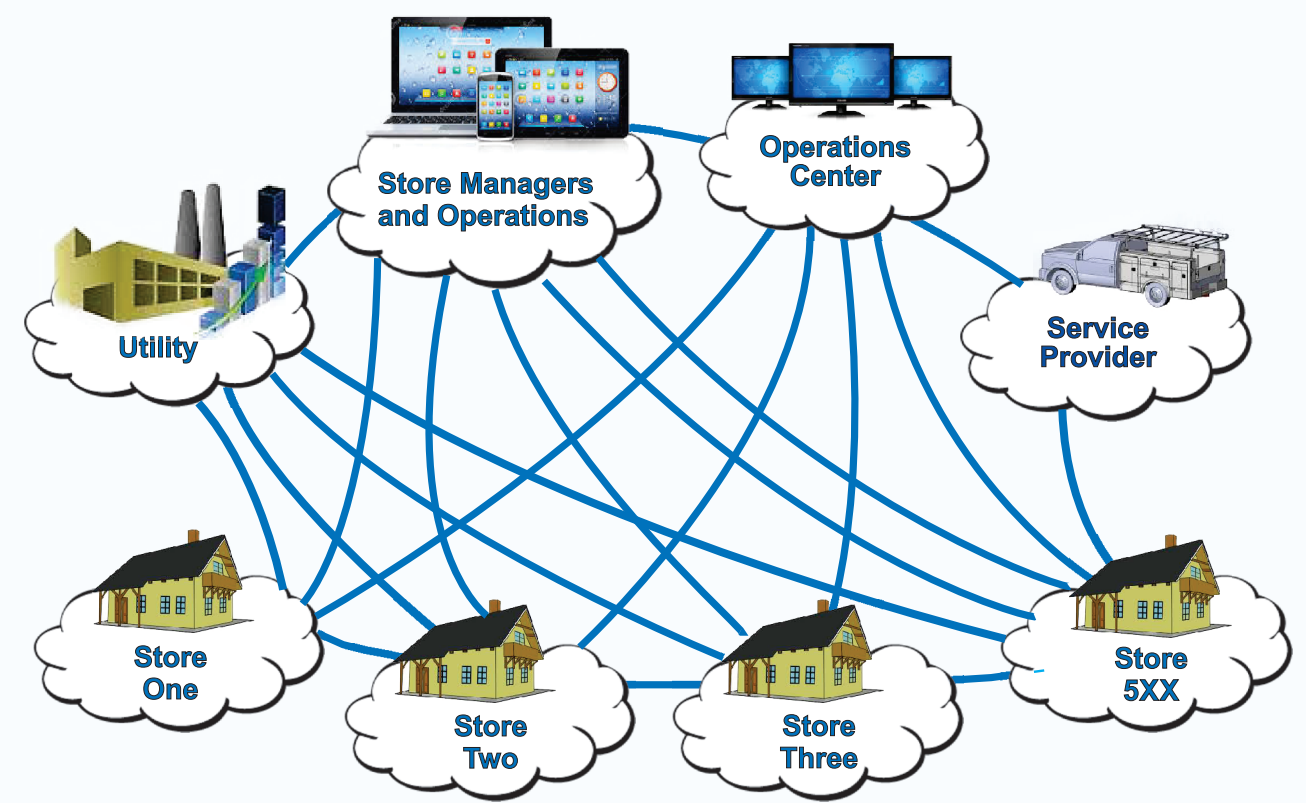


Report Features

A variety of management reports for equipment performance and energy consumption can be generated, exported and saved at anytime within the ADRESpro web interface.

Equipment Alarms

The ADRES system hardware monitors equipment performance and reports any out-of-limit conditions. These alarms can then be sent by Email or SMS text messaging to notify store and service technicians of equipment problems.



Reduce Energy Costs for Heating and Air Conditioning by 20% to 35%.

The ADRES Controller reduces your store energy costs by operating the heating, air conditioning, lighting and refrigeration at its peak efficiency while providing desired comfort and ambiance. The Adres Controller runs the HVAC/Air Conditioning systems more efficiently and even operates a VFD indoor fan more intelligently to meet your indoor air quality needs at a lowest cost. With these savings you will be able to pay for the ADRES Controller in less than 24 months on a small commercial system. Maximize utility rebates with onboard measurement and verification (M&V).

Management Control with Detailed Reporting of Energy Usage.

The ADRES Controller has all the power of an expensive energy management system. The ADRES Controller allows you to program heating and cooling set point temperatures and indoor fan operation that are most economical for your facility. Facility schedules can be easily changed using the secure ADRESpro website for single or multiple stores. The ADRES Controller has a built-in Measurement and Verification (M&V) capability to directly sub-meter the system energy consumption and performance parameters to document savings in a pre / post-retrofit basis.

Automated Demand Response with Utility OpenADR Technology.

The ADRES system has incorporated the openADR 2.0 demand response technology to allow the systems to participate in utility sponsored and subsidized automated demand response programs. You can program your stores systems and equipment around utilization and production requirements. You are always in control of when you participate in Utility requested demand response.

Compatible with a PC computer, smart phone, tablet or other Internet enabled device with a Web Browser capability.

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ADRES

Features

Energy Saving Features

- Improves operating energy efficiency by 20% to 35% without interfering with indoor comfort.
- Reduces equipment operating times using programmable time and temperature schedules for both heating and air conditioning.
- Reduces energy costs for maintaining indoor air quality with intelligent indoor fan operation.
- Reduces KW demand by 20% to 25% by intelligent sequencing and cycling of air conditioning systems. OpenADR Compliant.
- Fast payback period of typically two years on a small 5-ton packaged system and even faster on larger systems.
- Built-in utility approved Measurement and Verification of actual energy saved.

Management Features

- Wireless secure control of up to 128 total HVAC, Lighting, Refrigeration, Monitoring or Submetering systems within a single building.
- Override all heating and cooling setpoint temperatures from the ADRES controllers and limit the temperature override from the room temperature sensor Warmer and Cooler keys.
- Program 4 different temperature or Lighting schedules for each day, control indoor fan operating hours and modes, program up to 12 different holiday periods and all individual HVAC and Lighting system parameters.
- Display energy usage, KW demand and cooling and heating degree days for each HVAC system.
- Wireless secure and encrypted communications to all control units on Private IP Network.

Typical Installation

Lighting Control Module

One Lighting Control will control up to 8 different Circuits or Zones. The Lighting Control can also Monitor and Alarm Refrigeration, Heating Hot Water, Food Preparation and other production systems.

Room Temperature Sensors

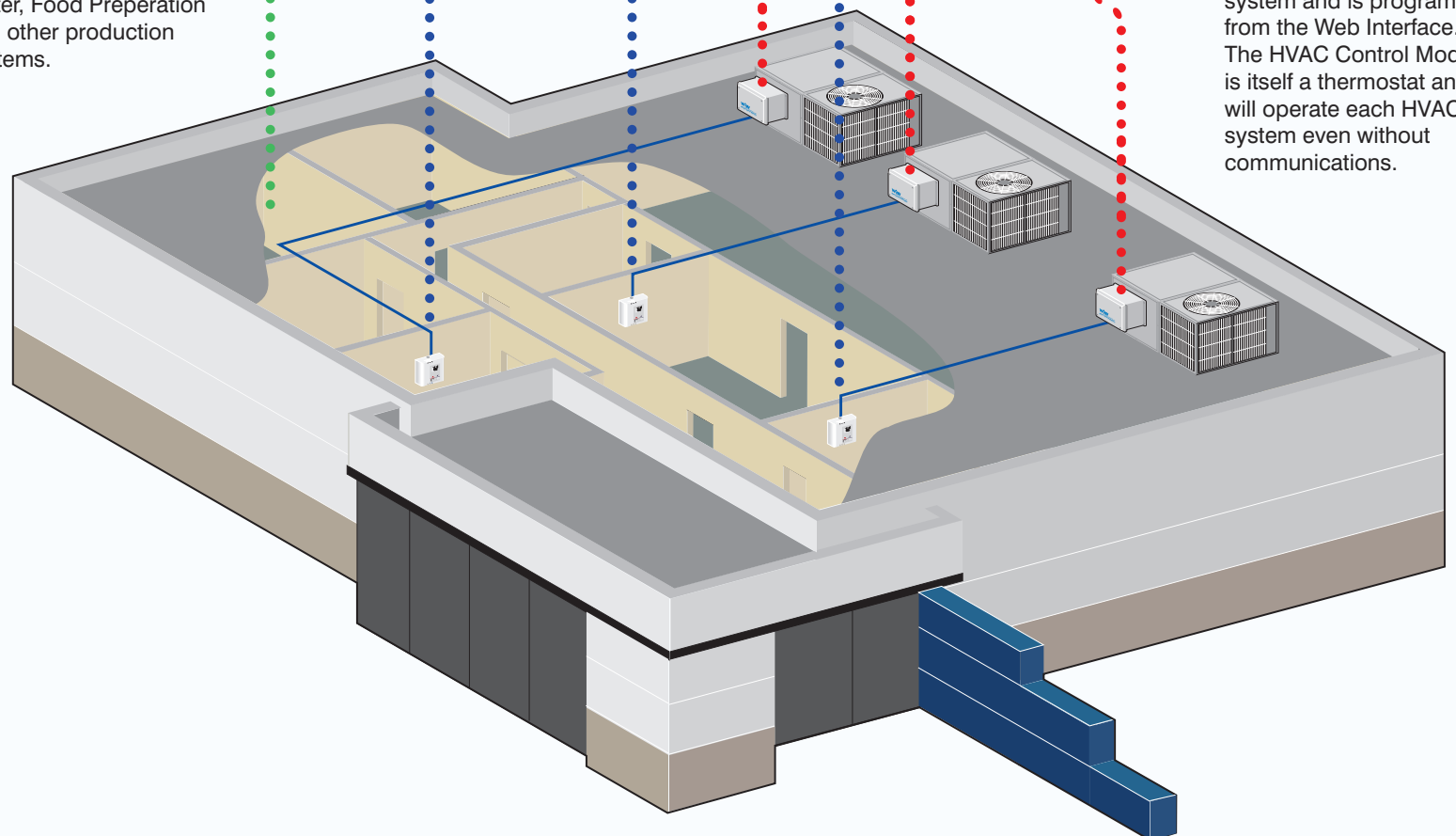


The Room Temperature Sensor displays the room temperature and provides a means of limited adjustment of the setpoint temperatures. Pressing the Warmer or Cooler key during a setback condition returns the setpoint to the comfort temperature for 2 hours (programmable).

HVAC Control Modules



An HVAC Control Module is located at each HVAC system and is programmed from the Web Interface. The HVAC Control Module is itself a thermostat and will operate each HVAC system even without communications.



Manufacturing

Applications

HVAC Systems

The ADRES HVAC controller is compatible with most single and multi-stage gas/electric packaged and split systems, heat pumps, oil fired furnaces and gas space heaters.

Lighting Systems

The ADRES can be used to control up to 8 individual Lighting zones. Run your Kitchen, Dining Room, Parking Lot, Outdoor Signage, Outdoor Building and Security Lighting on their optimum schedules.

- **Manufacturing**
Electronics • Aerospace • Medical • Textiles
Communications • Automotive • Food
- **Schools**
Elementary • High Schools • Colleges
Modular Classrooms • Day-Care Centers
- **Retail Outlets**
Clothing • Auto Parts • Office Supplies •
Pet Supplies • Home Improvement Centers
- **Entertainment and Recreation**
Theaters • Fitness Centers • Bowling Alleys
Alleys
- **Government Facilities**
Police and Fire Stations • Libraries • Post
Offices • Administration Buildings • Military
Facilities and Housing
- **Restaurants**
Fast Food • Restaurant Chains • Cafeterias
- **Office Complexes**
Sales • Medical • Legal • Real Estate
Engineering • Multi-Use Office Parks



Offices



Retail



Schools



Government