

Rev. 6 (07/23)

HVAC Smart Relay System (HSRS)





reduces energy use, saves **\$\$\$**

HSRS Wireless System

(Wired systems also available.)

In an era of high fuel costs, the HVAC Smart Relay Switch (HSRS) lowers energy bills by eliminating wasted power consumption. The HSRS automatically interrupts the HVAC system in the event of a violation such as a door or window that has remained open for a period of time or a room that has remained vacant. The HSRS is a fully configurable device that provides energy efficient control for heating and cooling systems. In addition, the HSRS can be used as a general purpose controller for devices including dampers, fans, etc.

The controller accepts wired and/or wireless switch sensor inputs. For wired sensors, most any switch device having normally open or normally closed contacts is acceptable. Mechanical sensors including reed, push-button, and toggle switches are also allowable. For applications where wire runs are not desired or simply inconvenient, wireless sensors may be used (requires RF receiver add-on). Intended for use with doors and windows, these sensors can also be applied in a myriad of other uses where simple on/off detection is needed. You may even use a mix of both wired and wireless sensor types.

Ideal for energy management, the controller reduces your power consumption when sensor inputs are used with doors and/or windows in HVAC applications. For instance, the controller can temporarily disable air conditioning or heating if a main entry door or window has been open for a period of time.



HSRS Wired System

The controller utilizes 16 configuration DIP switch settings for configuration purposes. Accepting wired and/or wireless sensors, the controller can be set up to automatically switch off the HVAC system based on parameters which you specify.

Automatically shut off the HVAC when doors or or windows are left open!



"As property manager of ocean-front vacation condominiums, we have had ongoing problems with guests who leave patio doors open. This has resulted in enormous electric bills, especially in summer months. We purchased & installed the HSRS and were pleased to discover immediate savings in our electric bills."

- Sam M., Hatteras, North Carolina -

Installation is straightforward, requiring 1 to 2 hours of labor by any qualified HVAC technician. The HSRS controller is typically mounted near the indoor air handler with appropriate low-voltage wiring routed from the HVAC unit for direct access to the system's 24vac power supply. The schematic below illustrates the simplicity of a typical HSRS installation:



How much will you save on your electric bills? Savings will vary for each installation and depends on a number of factors including the following:

- Energy costs in your area (\$ per kWh)
- Frequency of door/window infractions
- Power rating and efficiency of your HVAC system

Generally speaking, applications which incur "worst-case" infractions are likely to see significant savings. For instance, many vacation rental owners report that guests frequently leave patio doors open continuously while the air conditioning is running a scenario that is certain to result in extreme energy bills. The analysis below highlights the severity of these expenditures and the potential savings from a solution such as the HSRS which can eliminate cost overruns.



HSRS Wireless System

The wireless system is ideal for situations where wired-sensor cable runs may be expensive and/or inconvenient. The package includes controller (with integrated RF receiver), wireless door sensors and whip antenna.



Wireless Door/Window Sensor

The door/window sensor is compact and simple to install. This device uses two AAA batteries and contains internal RF circuit. It is a two-piece solution that consists of electronic sensor/transmitter and magnet. The sensor unit is typically installed on a door- or window-frame while the magnet is installed on the door or window itself. The sensor unit is a dual-channel device that can accept an optional external wired switch input or traditional wired alarm contacts.



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