







## HVAC Smart Relay Switch (HSRS) Wireless Door Sensors - Class 1 vs Class 2 -

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The HVAC Smart Relay Switch (HSRS) is an energy saving device designed to automatically shut off air conditioning or heating when a monitored door or window remains open for a preset period of time. Available in both wired & wireless packages, the system uses compatible door/window sensors.

The wireless product is available in two variations: Class 1 and Class 2. While both are functionally equivalent, there are some key differences to consider when making your purchase. (Bear in mind that the two classes are not cross-compatible. Therefore, you may not use a Class 1 sensor with a Class 2 controller, or vice-versa.)

	— Class 1 —		— Class 2 —
	<b>Mini</b>	<b>Basic</b>	<b>X10</b>
			
<b>Usage</b>	Wood doors	Wood doors	All door types
<b>RF Range</b>	50 ft. max	50 ft. max	50+ ft.
<b>Battery</b>	CR2032	CR123A	AAA (x2)
<b>Addressing</b>	Perm-16M	Perm-16M	Temp-64K
<b>Dimensions</b>	2.2" x 1" x 0.25"	3.1" x 1.6" x 1.2"	3.25" x 1.5" x 0.5"
<b>Wired input</b>	No	Yes	Yes
<b>Mounting</b>	tape	tape+screws	tape+screws
<b>Feature Specs</b>			

Features and strengths of the two classes are detailed below. (For a synopsis, including pros and cons, scroll to [Comparison Summary](#) on the last page.)

### **Class 1:**

Manufactured by Honeywell, these sensors are the same type found in compatible security systems. Recommended primarily for doors & openings that are wood-constructed, Class 1 sensors are available in two variations:

- Mini
- Basic

Both operate at 345 MHz, and are advertised with a transmission range up to 200 ft. (open air). However, we have found the usable range is typically lower and can vary widely from one installation to the next. Therefore, you should presume a max range of 50 ft. Class 1 sensors store a factory-assigned ID (address) and need only be registered (i.e., paired) once at the controller/receiver. Long-life lithium battery is included, lasting 5 years or more.

### **Class 2:**

The Class 2 category consists of the following sensor:

- X10 Classic






Tried and true, our X10 sensor has withstood the test of time. Operating at 310 MHz and featuring internal copper-coil antenna, this device packs a wallop. Less susceptible to signal degradation issues and interference, it yields an open air transmit range of 100 ft. (50 to 75 ft. typical).

A robust signal output makes this sensor the ideal choice for all door types, including metal doors and metal-framed openings including as patio doors.

The sensor stores a random, self-assigned ID (address). Therefore, re-registration at the controller is required whenever batteries are replaced. Two (2) AAA alkaline batteries are required (not included), delivering up to 2 years of reliable operation. (Or use optional lithium cells, yielding 5 years or more.)

## Comparison Summary:

The chart below compares critical features of the two wireless product classes:

	Class 1	Class 2
	 Mini	 X10
<b>Pros</b>	<ul style="list-style-type: none"><li>• Honeywell sensors</li><li>• Permanent ID (address)</li><li>• Long-life lithium battery (included)</li><li>• Usable for wood doors</li></ul>	<ul style="list-style-type: none"><li>• Copper coil antenna</li><li>• Less susceptible to interference</li><li>• Higher usable transmit range</li><li>• Designed for all door types including wood &amp; metal.</li></ul>
<b>Cons</b>	<ul style="list-style-type: none"><li>• Moderate range</li><li>• Not suited for metal doors</li></ul>	<ul style="list-style-type: none"><li>• Temporary ID (address)</li><li>• Batteries not included</li></ul>
<b>Specs</b>	 	

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