







Wireless Door Sensors: GEN2 vs GEN3

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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 – two included.

The wireless product is available in two generations: GEN2 & GEN3. While both are functionally equivalent, there are some key differences to consider when making your purchase. (Bear in mind that the two generations are not cross-compatible. Therefore, you may not use a GEN2 door sensor with a GEN3 controller, or vice-versa.) Available sensors are shown below.

	G3-Mini	G3-Basic	G2-Classic
			
RF Range	50 ft. max	50 ft. max	50+ ft.
Battery	CR2032	CR123A	AAA (x2)
Addressing	Perm-16M	Perm-16M	Temp-64K
Dimensions	2.2" x 1" x 0.25"	3.1" x 1.6" x 1.2"	3.25" x 1.5" x 0.5"
Wired input	No	Yes	Yes
Mounting	tape	tape+screws	tape+screws
Feature Specs			

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

GEN3:

Manufactured by Honeywell, these sensors are the same type found in compatible security systems. They feature sleek, modern design and long battery life (batteries included). We offer two GEN3 sensor models: mini and 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. GEN3 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.

GEN2:

Tried and true, our GEN2 classic (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).





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.)

Note:

Wireless door sensor operation can be severely impeded when applied to a metal door, window, or metal-framed opening such as patio door. If you are planning to use a wireless sensor with a metal opening (or applying to any metal surface), we strongly recommend GEN2 rather than GEN3. Because of its robust signal transmission, the GEN2 sensor overcomes metal-induced interference in most cases.

Comparison Chart:

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

	GEN3	GEN2
		
Pros	<ul style="list-style-type: none">• Modern design• Permanent ID (address)• Long-life lithium battery (included)	<ul style="list-style-type: none">• Copper coil antenna• Less susceptible to interference• Recommended for metal doors & patio doors• Higher usable transmit range
Cons	<ul style="list-style-type: none">• Moderate signal range• Reduced range when applied to metal door or patio door	<ul style="list-style-type: none">• Temporary ID (address)• Batteries not included
Specs		

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