



SwitchSpot - Wi-Fi Dry Contact Sensor



Technical Overview

General Description

The SwitchSpot Wi-Fi Dry Contact Sensor can be used to detect contact between two wired contact points that can be used with an external mechanical switch or a contact plate. An integrated 802.11 b/g radio allows the sensor to work with any existing Wi-Fi network. SpotProtect Wi-Fi sensors can be easily programmed with your Wi-Fi network's WEP or WPA(2) security via the SpotProtect Setup Utility (PC application) and a SpotProtect USB programming cable. User defined transmission intervals (heartbeats) and sensor threshold settings ensure that sensor data is received when needed, based on the application. All sensor data is stored securely in the SpotProtect Online Sensor Monitoring software and is viewable from any web enabled device. Email and SMS text messages can be configured through the online system to alert the user immediately when a defined parameter has been met or exceeded.

Features

- Senses immediate contact between wires.
- Can also sense when contact is broken.
- Product comes with standard 36 inch lead.
- Logs data if Wi-Fi network is disrupted.
- All sensors battery levels and status (alarm or no-alarm conditions) viewable online.

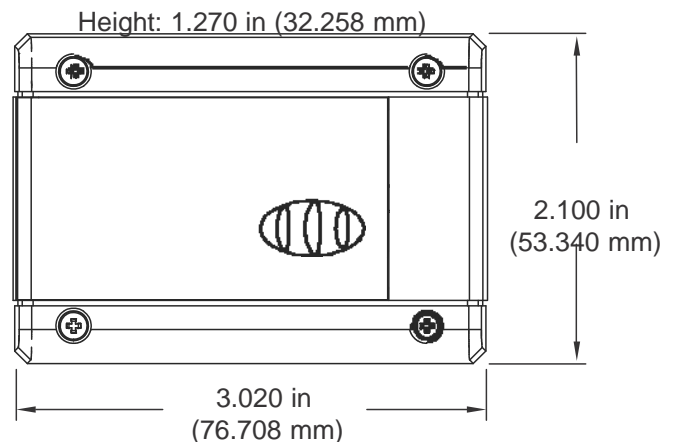
Principle of Operation

The SwitchSpot Wi-Fi Dry Contact Sensor detects when there is contact between the two wired end points. It can easily be integrated into existing switches or contact plates. When the sensor detects contact between the two end points it will immediately send an alarm signal via the Wi-Fi network back to the SpotProtect servers, allowing the user to immediately receive an SMS text or email alert. The sensor can be configured to detect both closed and open loops alerting if contact is made or broken.

SwitchSpot Wi-Fi Sensor Electronics Specifications

- Power: 2 replaceable 1.5V "AA" batteries (included)
- Communication: 802.11 b/g
(2.412 - 2.484 GHz)
- Wi-Fi Security: Open, WEP, WPA, WPA2
- Dimensions: 3.02" x 2.1" x 1.27"
- Transmission Range: Up to 250 ft. *
- Battery Life: Up to 5 years.**

* Actual range may vary depending on environment.
** Battery life is affected by sensor type, Wi-Fi security type, distance from Wi-Fi router, reporting frequency and other variables.



Applications

- Warehouse door monitoring.
- Freezer and cooler door monitoring.
- Forklift seat switches.
- Button or switch integration.
- Production line tracking.



Technical Specifications	
Networking Standards	IEEE 802.11 b/g
Frequency Band	2.412 - 2.484 GHz
Wi-Fi Security Standards	Open, WEP, WPA, WPA2
Wi-Fi Security Programming	Via PC software using USB cable. (Can be changed through SpotProtect software.)
Network Settings	Auto DHCP/DNS or Static
Data Logging	Unit can record up to 50,000 readings and transmit when Wi-Fi is available.
Power consumption	4uA sleep, 35mA active RX, 180mA TX (at +12dBm)
Battery Life	Up to 5 years depending on sensor type, Wi-Fi security, distance from Wi-Fi router, reporting frequency and other variables. (Testing surpassed 90,000 transmissions until battery depletion.)
Wi-Fi Data Rate	Auto configures to best rate for maximum range.
Wireless Range	Up to 250 ft. device range (typical to standard Wi-Fi devices).
Electronics Operating Temperature	Using Alkaline Batteries: -18°C to +55°C (0°F to +130°F) Using Lithium Batteries: -40°C to +85°C (-40°F to +185°F)
LED Light	Status / activity
Lead Wire Length	3 ft. (36 in.)

* Hardware cannot withstand negative voltage. Please take care when connecting a power device.

** At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.

Caution/Notice:

This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure). Do not use this sensor under the following conditions as they can deteriorate the product characteristics and cause failures and burn-out.

- Corrosive gas or deoxidizing gas - chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.).
- Volatile or flammable gas.
- Dusty conditions.
- Under low or high pressure.
- Wet or excessively humid locations.
- Places with salt water, oils, chemical liquids or organic solvents.
- Where there are excessively strong vibrations.
- Other places where similar hazardous conditions exist.

Use this product within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality of this product.

For more information about our products or to place an order, please contact our sales department at 888-885-9910 or visit us on the web at www.spotprotect.com