

## PRODUCT OVERVIEW



The XW-111 is an easy-to-use, wireless digital input monitoring device with a built-in web server. The XW-111 monitors and reports the status of switch closure sensors and alarms. It's ideal for applications where a device's status must be monitored and Ethernet wiring is not accessible or practical to install.

The XW-111 can sense the state of up to two switch-closure sensors, such as: push buttons,

magnetic door alarm switches, micro-switches, or any device which has a relay or switch closure output. The XW-111 can be configured for the alarm to be active when the switch is either open or closed.

Stand-Alone mode makes the XW-111 a self-contained device that requires no additional servers or ControlByWeb devices. While in Stand-Alone mode the XW-111 products can provide live, real-time input status directly to users through web browsers or the CBW Mobile app. In addition, Stand-Alone mode offers the ability to simply monitor input status and send out email alerts (which can be converted to text message alerts) either periodically or whenever an alarm condition occurs.

### Stand-Alone Mode:

**-View real-time input status** -Use the XW-111's built in web pages to view real-time input status: Connects directly to Wi-Fi network, no gateway devices required - AC adapter for main power and batteries for backup - No cloud server required

**-Email alerts during alarm conditions** - Send emails for on/off sensor status: Connects directly to Wi-Fi network, no gateway devices required - Battery/AC adapter powered DHCP or static IP address (no static IP required) - No cloud server required - No port forwarding required - Supports encrypted & un-encrypted email servers

**-Control relays in remote locations** - Control the relays on other ControlByWeb devices to turn on lights, bells, alerts, etc.: Connects directly to Wi-Fi network - no gateway devices required - Battery or AC adapter powered - Control remote relays on other ControlByWeb products

### Slave Mode:

Slave mode is used for measuring and reporting an input status to other ControlByWeb devices. While in Slave mode the XW-111's web interface is not directly accessible to the user, instead input status is simply transmitted to another ControlByWeb device that supports input status monitoring, such as the X-600M controller, which acts as a "master" device. The master device uses the XW-111's input status information as it would use information collected by any other input.

*Note on power: The XW-111 is powered by an external 5VDC wall transformer, or by two internal AA batteries. Only use batteries to provide backup power, or for modes where the web server is not being used. Some configurations consume more power than others which can make battery operation unpractical. Having more features*

*enabled and/or increased sampling frequencies lead to lower battery life.*

There is no special software to download, no drivers to install, and no monthly subscription. Monitoring inputs with the XW-111 is easy whether you are in the field, in the office, or on vacation. It is the ultimate solution to your wireless digital input monitoring needs!

## Features:

Wireless Wi-Fi 802.11 b/g/n

Transmission range up to 250ft\*

Small data packets provide long battery life

Built-in web server for configuration and remote monitoring

Connect a variety of switch-closure sensors

Powered by external DC power adapter or two AA batteries (battery usage for backup/low power applications only)

Each input status can control a relay on another ControlByWeb device

Simple and easy to use

\* Transmission distance can vary depending upon environmental conditions, interference from other Wi-Fi devices, obstacles, etc.

## XW111™ Wireless Digital Input Monitor

Main WiFi Networks Email Password Date/Time Inputs Control Page

### MODULE SETTINGS

Module Description: XW-111

#### INPUT 1

Description: Input 1

On Status Text: On

On Status Color: Green Red Yellow Blue Grey

Off Status Text: Off

Off Status Color: Green Red Yellow Blue Grey

Email Alert: No email messages

Email Schedule: Edit

Email Deadband: 0.0 Minimum seconds between emails

Remote Relay: No remote relay control

Remote Service: Send State Msg on Input Change

#### INPUT 2

Description: Input 2

On Status Text: On

On Status Color: Green Red Yellow Blue Grey

Off Status Text: Off

Off Status Color: Green Red Yellow Blue Grey

Email Alert: No email messages

Email Schedule: Edit

Email Deadband: 0.0 Minimum seconds between emails

Remote Relay: No remote relay control

Remote Service: Send State Msg on Input Change

Submit Reset Changes

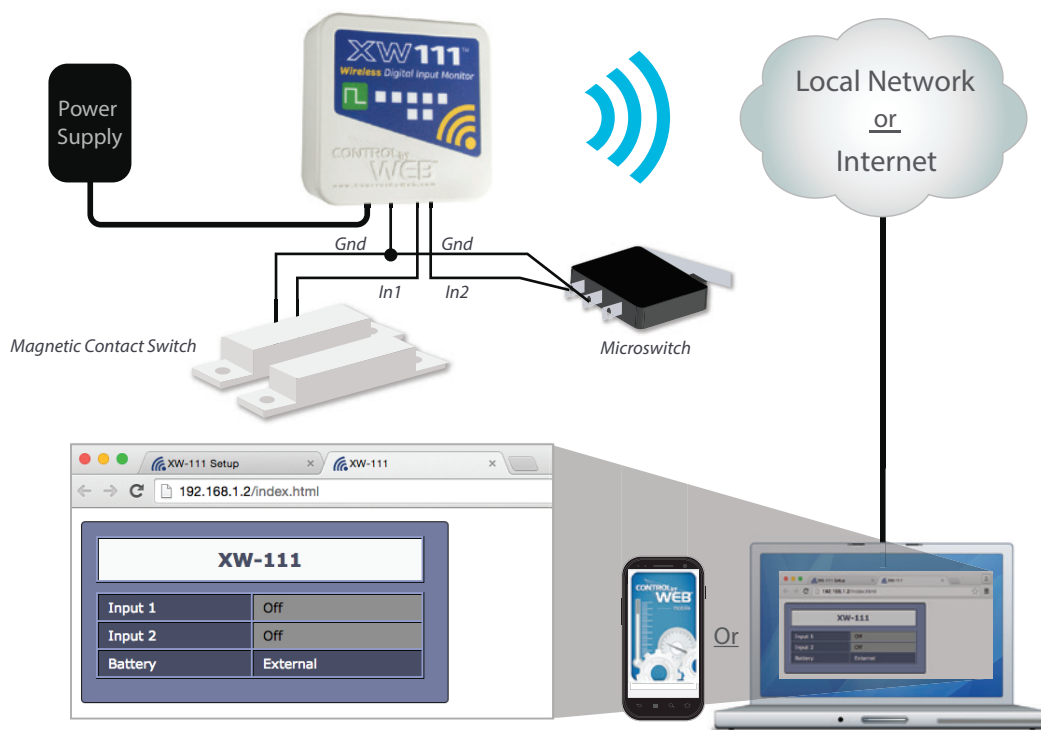
Inputs Page

Control Page

| XW-111                                  |       |
|---|-------|
| Input 1                                 | Off   |
| Input 2                                 | Off   |
| Battery                                 | 100 % |
| Current Time: Fri, 01 Jan 2016 08:11:27 |       |

**APPLICATIONS & SPECS**

Monitoring the XW-111 digital inputs' status on a computer/smartphone

**Models:**

- XW-111B

**Power Requirements**

- Voltage: 2AA batteries, or external 5VDC power supply
- Max Current: 500ma max (via DC power wall adapter)
- DC Jack: 5.5mm barrel x 2.5mm center pin (positive)

**Battery**

- Internal: Two replaceable 1.5V "AA" cells
- Power Consumption: 27-770uA sleep, 59mA active RX, 229mA TX (at +12dBm)
- Battery Life: Up to 1-year, depending on mode, security and reporting frequency. Battery life is affected by mode, reporting interval, security, DHCP, DNS, battery temperature, and other variables.
- Battery Usage: Battery voltage is measured and periodically reported

**Wireless**

- Network Standards: IEEE 802.11 b/g/n
- Frequency Band: 2.412 - 2.462 GHz
- Wi-Fi Security Standards: Open, WEP, WPA, WPA2
- Network Settings: DHCP or Static
- Wireless Range: Up to 250ft (typical for Wi-Fi devices) depends on environment
- Antenna: Integral chip antenna, 1.9 dBi.
- RF Output Power (typ): 14dBm (802.11b/g), 12dBm (802.11n)

**Operation**

- Provisioning: Via internal web server (no cables or PC utilities needed)
- Access Point: Yes, push button activated (setup via web page)
- WPS: Yes, push button activated (Wi-Fi Protected Setup)
- Connectivity: Intermittently connected or always connected
- XCD Data Packet: UDP, 10-bytes (See Appendix A)
- Remote Server: ControlByWeb's X-600M™, X-300™ or cloud-based server
- Polling: state.xml (only with always-connected)

**Internal Push Buttons**

- Button 1: Force access-point mode
- Button 2: Activate WPS mode

**Digital Inputs**

- Number of Inputs: 2
- Type: Non-Isolated
- Voltage Range: 0-3.3VDC
- Current: 200K Pullup
- Minimum Hold Time: (Awake) 30mS
- Minimum Hold Time: (Asleep) 100ms
- Input Isolation: Non-Isolated
- Input Functions: Monitor State, Trigger Email Alerts, Control Remote Relays
- Edge Trigger: Rising, Falling or Both

**Physical**

- Location: Indoor use or NEMA-4 protected location
- Using Alkaline Batteries: -18°C to 55°C (0°F to 130°F)
- Operating Temperature: -40°C to 65°C (-40°F to 150°F)
- Storage Temperature: -40°C to 85°C (-40°F to 185°F)
- Humidity: 5-95%, non-condensing
- Size:
  - 3.16 (80mm) wide
  - 3.04in (77mm) tall
  - 0.91in (23mm) deep
- Weight: 2.4 oz (68g), no batteries
- Enclosure Material: Lexan 940 Polycarbonate Plastic
- Enclosure Flame Rating: UL94 V0

**Password Settings**

- Password protection on setup page: Yes
- Password protection on control page: Optional
- Password Encoding: Base 64
- Max Password Length: 13 Characters

**Certifications**

- FCC ID: 2AE4Z-XWD001
- IC: 21441-XWD001
- FCC 47CFR15 (Class B)
- IEC CISPR 22, CISPR 24
- EN55024 ITE Immunity (2010)
- EN55022 Emissions (2010)