

## PRODUCT OVERVIEW



Water leaks can occur when you least expect them! Leaks that are left undetected can lead to thousands of dollars worth of repairs and equipment replacement costs. Monitor water leaks in server rooms, around water heaters, bathrooms, and areas near water tanks or pipes. Don't let a leaky pipe set you back!

The XW-112 is an easy-to-use and effective water leak detection system. This wireless device monitors the presence of conductive non-flammable liquids using a GRI-2605 liquid detection sensor (included). It's ideal for applications where liquid levels or water leaks must be monitored and Ethernet wiring is not accessible or practical to install.

### Built-in Web Server

The XW-112 is a self-contained device that does not require any additional equipment such as hubs, gateways, or servers. The XW-112 provides real-time water status to users through a standard web browser or the CBW Mobile app\*. In addition, it offers the ability to monitor the water sensor's status and send out email alerts (which can be converted to text message alerts) whenever water is detected.

\*Note that accessing XW-112 remotely over the Internet requires your local router to be setup to forward incoming requests to the XW-112.

### Email/Text Notifications

Receive email/text notifications in the event of a pipe burst, slow leak, or rising water levels in a tank for from ground water.

When the XW-112 Wi-Fi Water Detector detects the presence of water, it sends email notifications to up to 3 email addresses to ensure that the proper personnel is notified. Convert email messages to text messages using your wireless carrier's email to SMS gateway. (Carriers offer this as a free service.)

### Alarm Control

In addition to email/text notifications, the XW-112 can send messages to control other ControlByWeb devices when it detects the presence of water. For example, a WebRelay that is wired to an alarm notification device, such as a bell or flashing light, can be turned on by the XW-112 when water is detected. These ControlByWeb devices can be located in the same building, across campus, or they can be located in a location that's across the world!

### Power Failure Notification

Power failures can be the cause of disasters or they may disable detection systems so that alerts are not sent out when disasters occur. For example, a power failure

can disable sump pumps which can quickly cause flooding. Early notification of power failures can be extremely valuable in many applications.

The XW-112 can be configured to send out email/text notifications in the event of a power loss. This feature requires good batteries to be installed in the XW-112, and backup power must be provided to the local network that provides internet connectivity, such as a wireless access point. (Note that during times of power failure, the unit will not detect the presence of water.)

### Features:

- Wireless Wi-Fi 802.11 b/g/n
- Built-in web server provides stand-alone operation (i.e. direct access to unit without using a cloud server - No monthly or annual service fees)
- GRI-2605 liquid detection sensor is included
- Powered from a 5-Volt DC power adapter
- Two "AA" batteries provide backup power to send a power-fail alarm
- Alarm can control relays on other ControlByWeb devices
- Send encrypted email alarms and weekly status alerts (up to 3 addresses)
- Simple and easy to use
- Includes auxiliary protocols: XML and Remote Services
- Static or DHCP IP address configuration
- 5-year warranty

## XW112™ Wi-Fi Water Detector

Main WiFi Networks Email Password Water Sensor Control Page

SENSOR SETTINGS	
Description:	Wi-Fi Water Detector
Control Page Refresh Rate:	3 Seconds
Email Alerts:	On <input type="radio"/> Off <input type="radio"/>
Remote Relay:	No remote relay control
Remote Service:	Send State Msg on sensor Change <input type="checkbox"/>

Submit Reset Changes

Sensor Page

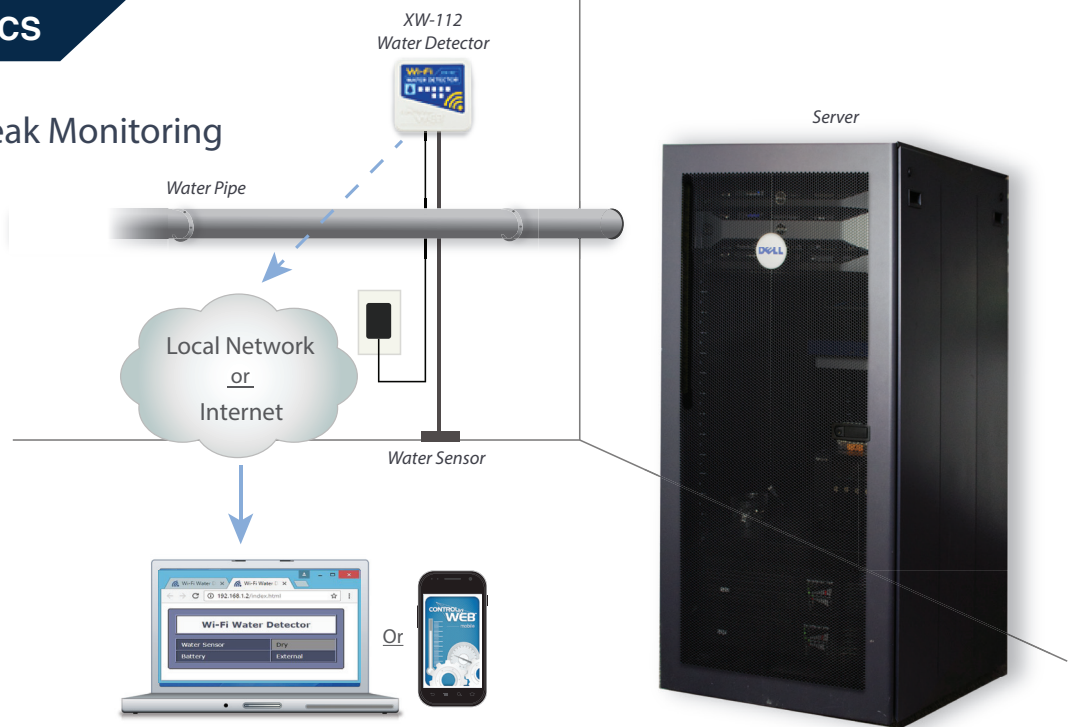
192.168.1.2/index.html

Wi-Fi Water Detector	
Water Sensor	Water Detected!
Battery	External

Control Page

## APPLICATIONS & SPECS

### Wireless Water Leak Monitoring



### Power Requirements

- Voltage: 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: 59mA active RX, 229mA TX (at +12dBm)
- Battery Usage: Battery voltage is measured and periodically reported
- Battery Life: On external power failure, 3 days minimum

### 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: 1
- Type: Non-Isolated
- Current: 12.4K Pullup
- Minimum Hold Time: 20ms
- Input Functions: Monitor Liquid State, Trigger Email/Text Alerts, Control Remote Relays
- Edge Trigger: Rising, Falling or Both

### Water Sensor

- Model: GRI 2605
- Operating Voltage: 5 VDC
- Operating Current: 10 mA
- Wire Connections:
  - Red: +5V
  - Green: In
  - Black: Ground
  - White: Ground
- Lead Wire: 6ft (1.83m)

### 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

### Electromagnetic Compliance

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

### Product Safety Compliance

- IEC 61010-1

