

Sentinel Aqua

Wi-Fi® Water Detection Sensor

802.11, 2.4GHz Radio

Battery-Powered

Up to 2 wetness probes

Optional internal T & RH sensor (SHT11)



Applications

The Sentinel products are ideal for storage applications where continuous monitoring is required.

- Leaks
- Agriculture
- Check Condensing Humidity
- Pipelines
- Server Rooms
- Rain Fall
- Facilities Management

Features

The complete solution includes the sensor, wireless transceiver, database and a web-based portal.

- Form Factor – 3"x 2"x 1"
- Web-based Data Visualization¹
- Up to 3 Years Life using a single Lithium AA battery²
- Alarming/Alerting System³
- Uses the Wi-Fi Infrastructure
- Audit Trail of the Sensor Data

¹ Available separately: Desktop Software, Web Hosted Portal or Enterprise Portal.

² Battery Life varies depending on network conditions and sensor settings.

³ Available only with Web Hosted, Enterprise and Desktop Software Gold Edition

Benefits

No wireless receiver is necessary as it uses the existing Wi-Fi infrastructure – therefore the overall cost is significantly lower; full sensor audit trail; data can be viewed remotely from any computer using a web browser; sensor units are battery operated therefore portable; sensor units can last up to 3 years using a single Lithium AA battery(*).

Technical Specifications

Sensor Unit

Data Storage	At least 21 days of sensor data at sampling rate of once per minute (10 days with optional T&RH probe)
Data Visualization & Reporting	Desktop Software, Web Hosted or Enterprise Portal
Alerting System	Email or cell phone alerts when sensor crosses set threshold values (depending on Software version)
Power supply	Using a single AA 3.6V Lithium battery - Expected life of up to 3 years
Operating conditions	Operating temp. range: -10°C to +60°C Operating humidity range 0% RH to 90% RH non-condensing
Physical dimensions	3.3"L X 2.5"W x 0.8"H (82mm x 62mm x 21mm) Weight: 2.3oz (66g)
Regulatory	FCC
Typical power emission	33mW

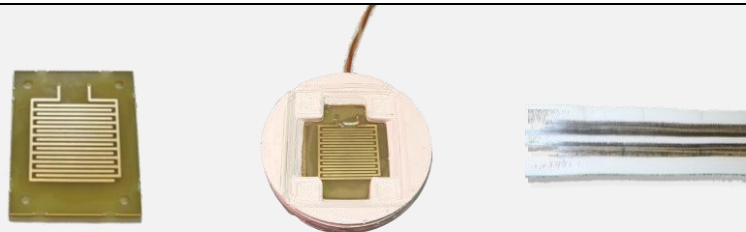
Wi-Fi

Radio Protocol	IEEE 802.11 b/g compatible (g-only not supported)
Supported rates	1, 2, 5.5 and 11 Mbps only
Security	WPA2-PSK (AES) WPA1-PSK (TKIP) WPA1+2 PSK (AES+TKIP) 802.1x EAP-FAST WEP (40bit, 104bit)

Networking

Addressing	IP v4 static or DHCP address
Protocol used to communicate with server	SNMP/UDP, UDP
Ports	161-163 on both server and sensor

Probes

External Wetness Sensors	<p>Up to 2 Identical Probes can be attached.</p> <p>Impedance range: 0Ω to 2MΩ (Lower limit theoretical)</p> <p>Voltage applied: 1.8V</p> <p>Measuring current: < 0.18mA</p> <p>Impedance resolution: 16-bit ADC</p> <p>Hold time: 10ms</p> <p>Detect at least 3 States: NO WATER, PARTIAL IMMERSED, COMPLETELY IMMERSED</p>
Three types of sensors available; Custom sensors can be built	
Light Sensor	Responsivity: 400-1000 nm (spectral)
Internal Ambient Humidity (SHT11 version only)	<p>Range: 0-100% RH</p> <p>Resolution: 0.03% RH</p> <p>Accuracy: ± 3.0% RH</p>
Internal Ambient Temperature (SHT11 version only)	<p>Range: <i>same as unit operating range</i></p> <p>Resolution: 0.01°C (typical)</p> <p>Accuracy: ±0.4°C (typical at 25°C)</p>

About Aginova

Aginova Inc. is a wireless sensor network solution provider. The Company will provide the packaged wireless sensor hardware with the data acquisition and management software using leading-edge Internet and Web technologies.

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