
ATIM Cloud Wireless

Leakage detection sensor

WL

Quick Installation Guide



Concerned models:
ACW/LW8-WL
ACW/SF8-WL



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Technical specifications

<i>Protection rating</i>	IP68
<i>Temperature</i>	-25°C to +70°C (operating)
<i>Radio Power</i>	25 mW \equiv 14 dBm
<i>Active radio supply current</i>	300 mA _{max} for 3 s
<i>Supply current on standby with batteries</i>	4 μ A _{typ}
<i>Radio frequency</i>	868 MHz
<i>Internal supply voltage</i>	2.7 to 3.6 V _{DC}
<i>Rate</i>	Sigfox: 100 bps LoRaWAN: 300 bit/s à 10 Kbit/s

Configuration

- Fast, simple installation
- Checks for presence of water every 10 minutes

Access to data

- At acw.atim.com/
- On the Sigfox backend
- On the LoRaWAN platform

Description

The system connects to a Sigfox or LoRaWAN network to allow immediate detection of water leaks in any urban heating or water supply network and transmits the alert to the Internet in real time.

The water sensor is directly integrated into the ACW-WL. The two terminals on the front panel are used to take the readings. These 2 terminals must be installed at the location where you wish to monitor for the presence of water.

The module is powered internally by a lithium battery and is rated IP68 due to resin sealing of the sensor and radio portion.

Instant activation.

A keep-alive frame is sent every week so you can be sure the module is working correctly. This frame includes the message number transmitted by the module and the sensor's reading level (presence or absence of water).

When a radio transmission is in progress, a red LED flashes on the front panel.

Installation

Antenna

ANT868-12S-L (½ wave antenna): Does not require a metallic ground plane to function correctly and can be installed directly on a polyester surface in a vehicle or over a PVC cabinet.

For optimal results, it is recommended that you install the antenna away from all environmental obstructions (e.g. electrical box) and position it as high up as possible.

Configuration

The module checks for the presence of water every 10 minutes. Information is transmitted if, and only if, there is a change in the sensor's status (e.g. a change from presence to absence of water) and the state is detected for two consecutive readings. The change of state triggers the transmission of 5 radio frames to ensure that the information will be correctly received and processed.

A keep-alive frame is also sent out once a week. This information allows you to verify that the module is still functioning and to read the current state of the sensor (presence or absence of water).

Frame

Description	Octet 0	Octet 1	Octet 2
Frame sent to test the network	5	Test frame counter	
Change of electrode state	19	Frame counter	Water level