



# AiRISTA Flow A1 Tag



## USER GUIDE

Revision 1.0

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## General

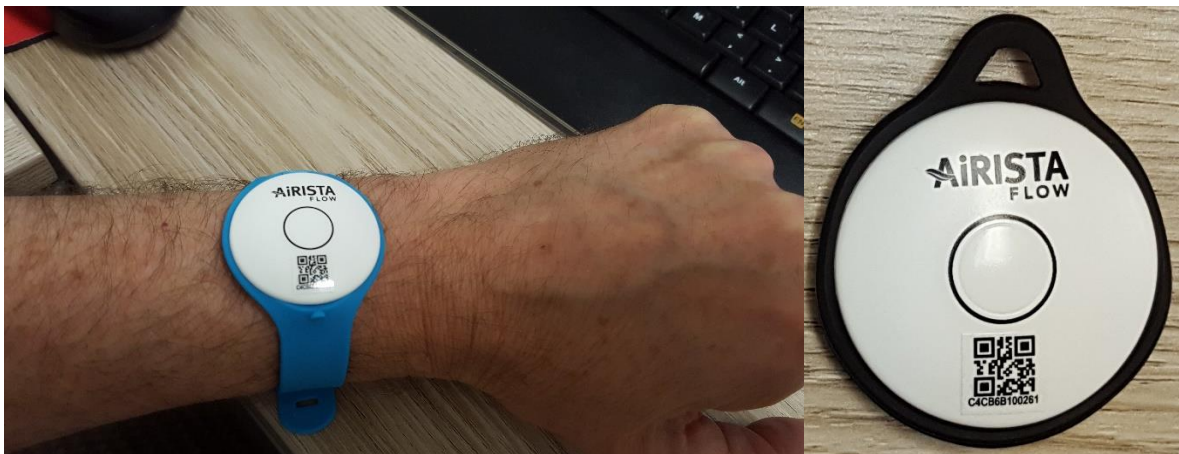
This user guide relates to the economical AiRISTA Flow A1 small factor BLE only Tag.



### Use Cases for the A1 Tag

The AiRISTA Flow A1 tag is a multipurpose BLE 4.2+ tag. The tag can be worn in a wristwatch type format or on a key tag/ pendant or it can be attached to an asset that need to be tracked. The tag has a single tactile push button on the center top of the tag. The tag has optional Temperature and humidity sensors or a three axis Accelerometer.

The tag is over the air programmable and upgradable.



The AiRISTA Flow A1 tag uses the BLE network infrastructure to send data back to the controlling server. In addition to beaconing the tag also scans for beacons so it could be used in cases where people or assets can be associated to each other. Typical applications for this are social distancing and asset monitoring so that assets/objects can stay within parameters of each other. When no existing infrastructure is available AiRISTA Flow provides low cost Wi-Fi/BLE gateways to transfer tag data to the controlling server.

## Physical Features

### *Dimensions:*

7 mm x 40 mm (0.25 x 1.5 in) Thickness and Dial size.

### *Weight:*

23 g (0.8 oz).

## Specifications

### *Environment:*

Operating Temperature: -40 to 70° C (-40 to 158° F).

Storage Temperature: 10 to 25° C (50 to 70° F).

### *Typical Operating Range:*

Line of Site: 45 meters (150 feet) at 5 dBm.

Obstructions: 22 meters (75 feet) at 5 dBm.

### *Electrical Interface:*

Long lasting replaceable 3V CR2032 coin battery (Up to 5 years at 1.5 second update interval).

### *Certifications:*

FCC: Part 15. (See FCC Statement)

CE: Europe.

### *Supported Protocols:*

Cisco Support: LTX protocol support.

iBeacon. Eddystone.

Pendant or Wristwatch strap

Splash Proof enclosure

3V CR2032 coin battery

Tactile Push Button

Multi-Color LED

MAC address

Optional Temperature and humidity sensor

And/or 3 axis Accelerometer.



## A1 Tag Activation and De-Activation

Press the button on the tag and the tag will activate.

The tag will automatically de-activate after 15 minutes if it is not in motion. (Not moved)

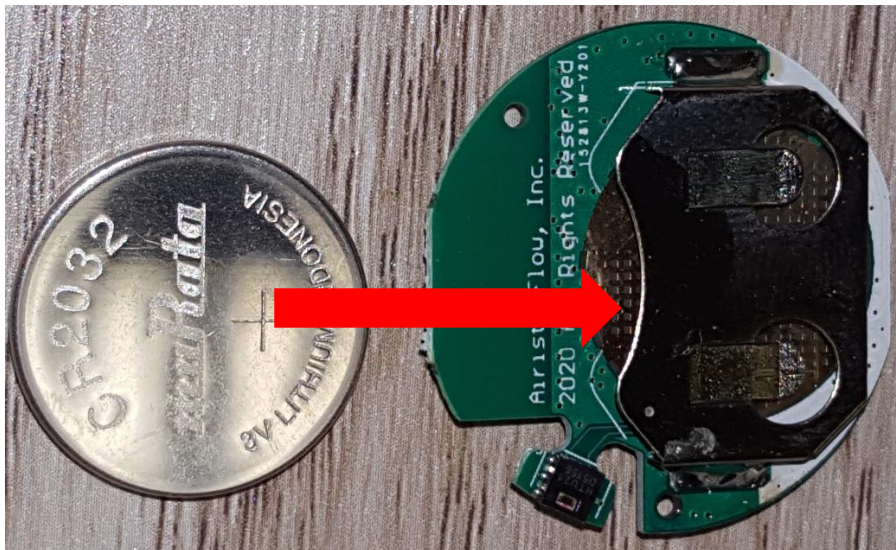
Press and hold the button for 5 seconds to force the tag to reset. This action will stop the tag process and the button needs to be pushed again to activate the tag.

## Battery Replacement

The A1 tag can be opened by prying the front and back of the clam shell enclosure away from each other. Do not insert any device in the square slot as that is where the sensitive humidity sensor is located.



Once you have the 2 parts of the enclosure separated you will see the battery located in a slide holder on the back of the PCB. Slide the battery (CR2032) out of the battery holder and replace with a fresh battery in the same polarity as the one removed. (Negative side towards the PCB.)



When placing the A1 Tag PCB back into the enclosure make sure you line up the 2 alignment pins inside the mold with the holes in the PCB.



After the battery was replaced close the A1 Tag by lining up the enclosure clips and then pressing the 2 parts of the enclosure together.





## A1 Tag Programming with nRF Connect

The tag should preferably be programmed by the controller server as it has over the air capability (OTA).

The tag can also be re-configured from the standard default settings with the nRF Connect application that can be run from any device that has Bluetooth technology and that has the application to support it.

**It is recommended that you contact your AiRISTA Flow representative for more information on this process.**

These are the default settings for the A1 tag:

RSSI Threshold value in hex= 41 ui 8 - Contact distance

RSSI Threshold offset value in hex = 7 ui 8 -Warning distance = contact distance + warning distance

prox out value in hex= 3c-00 sec ui 16= 60 sec ( 1 min)

prox in value in hex=84-03 sec ui 16= 900 sec (15 min)-contact duration

Values need to be converted to decimal when loading new values but they will be shown in hexadecimal in the nRF Connect application.

Time keeping values are set in seconds.

## FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

## Contact

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