

## Overview

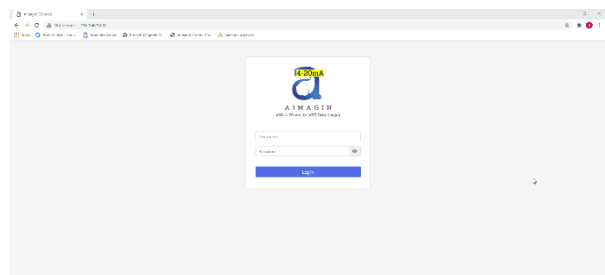
aMG 4-20mA to WiFi Data Logger is a device that can read up-to 4 channels of 4-20mA data every 1 second. The data can be encrypted and sent to a customer own database server securely via WiFi, with 7-years-worth of in-device backup storage (a micro SD card). Therefore, you will always have critical information, to the finest detail, stored securely and redundantly both in your own server and in the device. Installation and usage are simple. No need for data link cabling. No need to collect data on-the-spot. No need to worry about data security and privacy. Just setup your own database server, connect the device to a common WiFi network, and wait for the data to arrive in your database. Most suitable for customer with basic IT knowledge to set up your own database server (free example source code available for our customers).

## Key features

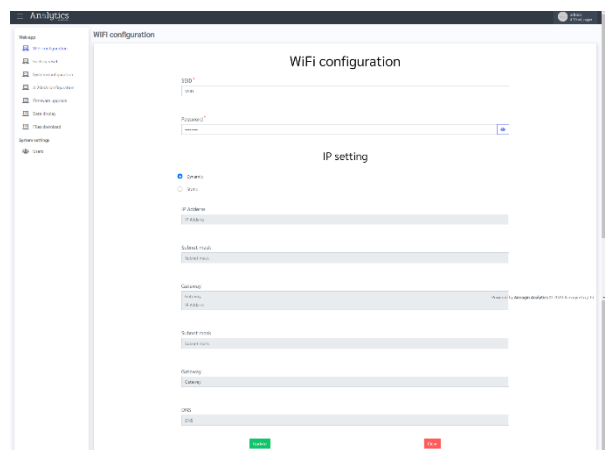
- Concurrently record all data to internal storage and send data to your own remote database server.
- Support RESTful API webservice with time-varying user-customizable secret-keyed AES encrypted JSON data package.
- Free server setup source code example e.g., Php + MySQL and Node.js + SQLite.
- Easy setup via a web application, just like setting up any WiFi access point at home.
- User and role-based management for device access control by an administrative user.
- Circular buffer mechanism to ensure precise data acquisition timing.
- Configurable heartbeat service for data connection health checks.
- Over-the-Air firmware upgradable to take advantage of new features in the future.

## Technical Specifications

- HS Code: 9031.80
- Enclosure
  - DIN rail fitting.
  - 100 % ABS FR Flame Retardant UL94V-0 plastic material.
- Power supply
  - Voltage range: 9 – 24 VDC.
  - Maximum current consumption: 200mA.
  - Reverse voltage protection.
  - Over voltage protection.
- Inputs
  - Current loop (4-20mA): 4 channels.
  - Sample time interval: 1 second – 24 hours (can be independently set for each channel).
- Connectivity
  - 802.11 b/g/n (2.4 GHz), up to 150 Mbps.
  - Support RESTful webservice for sending data to server with user customizable JSON field name.
  - Antenna connector: SMA (female).
  - Included in the box: 5dB omni-directional antenna.
- Built-in backup storage:
  - Replaceable micro SD card (16GB supplied with the device – can store up-to 7-years-worth of all 4-channels data at 1Hz sampling rate).
  - Maximum micro SD card size: 32GB.
  - Backup data can be downloaded wirelessly on-the-spot.
- Operating modes:
  - Configuration mode (WiFi Access Point mode).
  - Running mode (WiFi Station mode).
  - Status LEDs.
    - Power supply.
    - Connection status (Wait for configuration, User configuration, Enter running mode, Connected to WiFi).
- Web application user interface for configuration:
  - Log-in page.

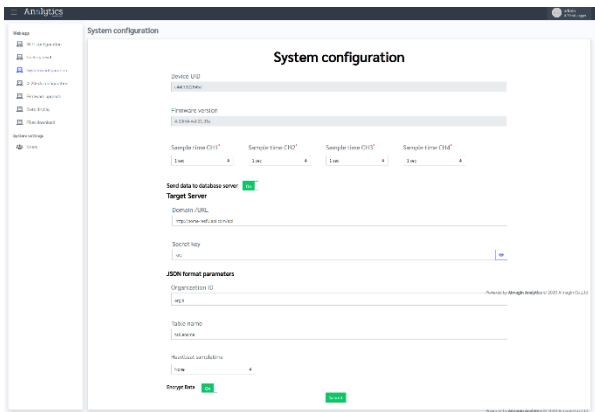


- WiFi configuration page.

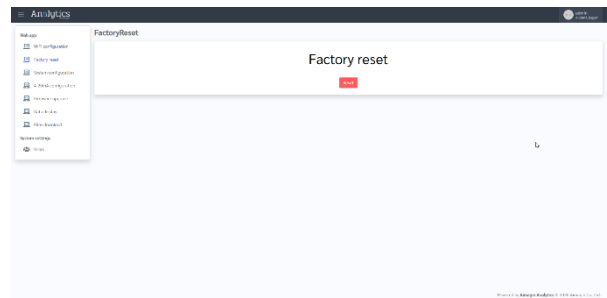


# aMG 4-20mA to WiFi Data Logger Technical Specifications

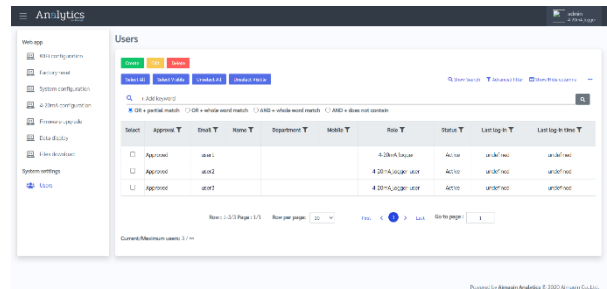
- System configuration page.



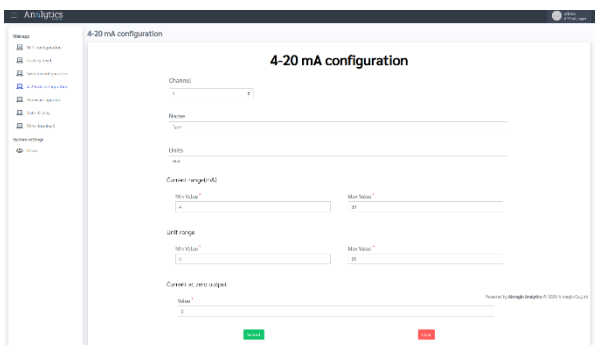
- Factory reset.



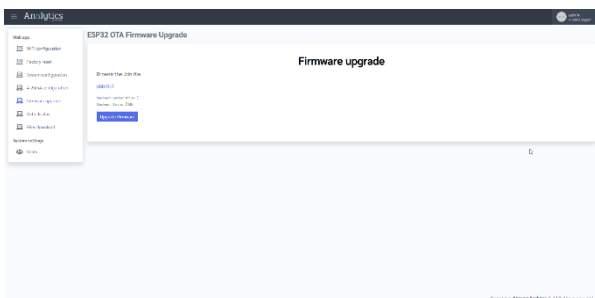
- User management.



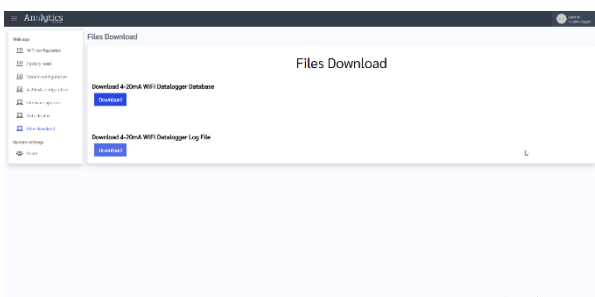
- 4-20mA configuration.



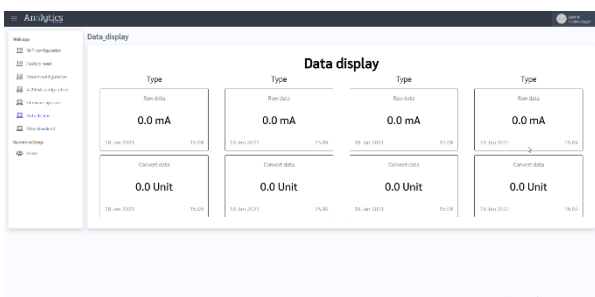
- Firmware upgrade.



- File download



- Data display (Real-time dashboard).



## More information

- [Product page.](#)
- [Online user manual.](#)



Scan for more information

## Interesting facts

aMG 4-20mA to WiFi Data Logger was developed solely with the following tools:

- **Waijung 2:** Aimagin's model-based design technology (Matlab® / Simulink®) Internet of Things (IoT) development platform.
- **Aimagin Analytics:** Aimagin's web-based data analytics platform.
- **Aimagin Connect:** Aimagin's web application generator platform.

These tools and technologies allow embedded engineers to develop more advanced and reliable IoT-enabled embedded systems in much shorter time. For more information about Waijung 2 visit <https://www.aimagin.com/waijung-2.html>