Senstate

Air Quality Monitor
INSTRUCTION MANUAL

Cloud System
https://senstate.cloud

Q&A I Discussions
https://senstate.com/community

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Technical Specifications

General

Model	Senstate Air Quality Monitor
Weight	45g
Dimensions, L x W x h	92 x 45 x 23mm
Operation temperature	-4°F - 140°F (-20°C - 60°C)
Operation humidity	0% RH - 99% RH
Protection class	IP54

Sensor Module

Type	Digital signal sensor
Sensor class	Semi-professional
Typical accuracy (% RH)	±3
Operating range (% RH)	0 to 99.9
Typical accuracy (°C)	±1.0
Operating range (°C)+	-20~60

WiFi Module

Standard	802.11b/g/n
Frequency Range	2412 ~ 2484MHz
Transmit Power	802.11b: 16 ± 2 dBm, @11Mbps
	802.11g: 14 ± 2 dBm, @54Mbps
	802.11n: 13 ± 2 dBm, @HT20

Power Supply

Interface Connector	USB Micro Type B
Input, Power	5V, less than 1A
Consumption	Nom. < 30mA, peak < 250mA
Outer supply type	Pulse, EU or UK plug
Outer supply Input	110-240VAC, 50-60Hz, 0.3A
Outer supply Output	5V DC, 1A

Downloads

User Manual

For your device to appear in your devices list, you need to assign it first. Once assigned to your account, you will have full control over the device and all its data.

⬇ **https://senstate.com/download/IAQ-manual**

Other Downloads

You can visit our downloads page where you can find instruction manuals or other documents for our devices.

⬇ **https://senstate.com/downloads**

What is Included

The device and its accessories are packed into package. If you find that during the unpacking of a brand-new device any of the accessories is missing, please report immediately.

1x Senstate Cloud Device

1x Power Supply

1x Security Card

Device Security Card

Senstate Cloud Device

Senstate Cloud Device is a cloud-connected, real-time data submission Air Quality monitor. The device uses the widespread WiFi standard for communicating with secured cloud infrastructure. Once connected, the device transmit the data to cloud services, where data is stored, visualized and processed.

In order your device to start submitting data, it should be assigned to existing or new account. To create account, please visit https://senstate.cloud and follow the steps to Sign-Up for an account.

Power Supply

Power supply is used to power the device during its operation.
Power supply uses a standard **5V output** via **USB Micro connector**. In case you wish not to use the power supply from the package, you can use other sources that have 5V output and a standard USB Micro interface.

Device Security Card

The Device Security Card contains sensitive information about the identity of the device. The information belongs to this device only and it will not work with other device. It is used for the purpose of assigning the device to your user account in Senstate Cloud. **Always keep this card in safe location.**

Usage Instructions

Thank you for choosing our Senstate Device.

Follow the instructions of the present manual to immerse yourself in the world of Industry 4.0 and the Internet of Things. Please read carefully the manual before using the product. Please keep the manual on hand for referring to it in your further actions. You can reach our knowledge base and support forums on internet as well. There you can find useful information and support topics. Information and topics can be found at www.senstate.com in the respective sections and subsystems of the website.

Accessories

Use of accessories supplied with your arrangement to recommended by the manufacturer only. Using of accessories which are not supplied or not sanctioned by the manufacturer may be dangerous for the User or do harm the device. Using of non-appropriate accessories eliminates guarantees of the product therewith.

Water and Moisture

To avoid damage which can cause ignition of the present device or lesion to the User with electrical current, the product and its accessories should not be undergone with any liquids, rain or high moisture. Do not use the device in places where it may be exposed to the contact with liquid or vapor.
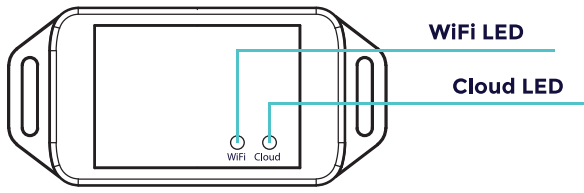
Service and Maintenance

The device should not be disassembled. Traces of disassembling automatically invalidates the product. The device and its accessories should be cleaned only with dry cloth. To ensure safety, please switch the power supply off the socket before any cleaning of the device. Do not use cleaner or polish, benzol, solvents, abrasive items, liquid or aerosol detergent to clean the device. Such substances can damage the sensor, the electronics or the external look of the device.

Do not cover the device with anything. Do not move the device until it's switched off. Switch off the device if you need to move or shift it. The product is intended for indoor use.
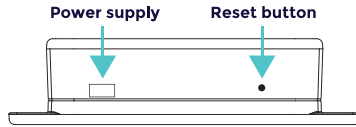
Technical Specifications

There are two LED indicators on the front side of the device - WiFi and Cloud.
Each one represents different state of the device, depending on the blinking status and frequency. For refference see below:

WiFi LED

Cloud LED

LED Blinking Frequency				
	LED off	Slow blink	Fast blink	LED on
WiFi LED	Usual state of device that is not on power. If LED's are off, then either (1) the device is not powered on, (2) there is problem with the power supply.	Device is not set-up for specific WiFi networ. You need to set-up the device.	Device is trying to connect to the specified WiFi network.	Device is connected successfully to a WiFi network.
Cloud LED		Device is trying to get its setting record from secured cloud services.	Device is in authentication mode for its first data submission.	Device is fully connected and transmitting data to the Cloud.

Device Restart / Reset

Power supply   **Reset button**

You can find the reset button on the bottom side of the device. Use it if you want to restart or reset it.

Short push: restarts the device.

Restaring the device only re-initialize the sensors and re-connects the device to the Cloud. The device keeps its settings such as WiFi access details in the memory. Restarting the device does not affect the stored settings.

Long push (>5s): resets the device

Device will clean its WiFi access point records and will automatically enter into set-up state. After each reset, the device needs to be configured again. Reset the device each time you need to re-assign it to a new WiFi connection.

Usual Initialization Time

The initialization time can take up to two minutes. Since device connects to distributed secured IT environment, it might take time for all services to check access records and set-up the submission services to receive data from the device.
Regular timing listed below.

	Slow blink	Fast blink
WiFi LED	N/A	< 10 sec
Cloud LED	< 10 sec	< 2 min

Above are listed the average initialization times for the device. Sometimes times can exeed the average. Device can only be initialized if it is sucessfully configured for WiFi connection and assigned to specific user account in **https://senstate.cloud**

Device Calibration

Each device released on the market passes through precise factory calibration. In general, you will not need to re-calibrate the device during its warranty period or after that. But in some cases, when the device is exposed to severe conditions or when regulations require that you calibrate the device on certain period of time, you can re-calibrate it by following the steps below:

1 **Enter into calibration mode**
To enter into calibration/factory mode, please push the reset button once (short push). The LED's light will become softer. This means you are in calibration mode;

3 **System authentication**
After you are connected to the device, you will be required to enter access password. Your device access password is the first 8 characters of your device token.
***Important: password is case sensitive**

You are all done
Your device is custom calibrated.

Quick Start

The main purpose of this device is to measure the parameters of the air and trasmit all data to cloud services where data is visualized and processed. Without WiFi connection to internet or account in **https://senstate.cloud** online platform, device will not be fully operational.

Step 1 **Power the device**
Switch on the device as pluging the power supply connector in the device. LED light for WiFi should start blinking, which means device is active and waiting to be set up.
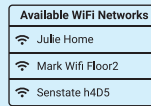
Step 2 **Device Setup**
If device is brand new, once switched on, it will automatically enter into setup mode. The other way to intiate setup mode is to long-press the reset button on the bottom of the device. Long-push for 5 seconds will erase any stored WiFi settings and credentials and will force the device into setup mode.

Step 3 **Connecting the Device to WiFi**
Once device is in setup mode, you need to connect to the device from another smart device like your smart phone. Device will appear in your WiFi connection points as Senstate XXXX where XXXX are the last four symbols of your device serial number.

Available WiFi Networks
- Julie Home
- Mark Wifi Floor2
- Senstate h4D5

01. Connect to the devcice as choosing it from the list of WiFi networks

02. Navigate to address **87.120.42.48** on your smart phone browser to connect to the setup portal.

03. Once you are in the setup portal, you need to tap on Configure WiFi and then select the network you wish to connect to. Just set up the WiFi credentials and save the settings. Once you save the credentials, device will store and use them during its operation.

Important!
If the WiFi connection that you assign your device to does not have direct connection to Internet, it will not be able to submit data. Make sure that the selected WiFi connection does have internet connection and is not limited by firewall or other internet blocking services.

Create account in the Cloud

For this device to be able to transmit data, it should be assigned to specific account in the cloud system. Device can be assigned to already existing account or you can create new account to assign the device.
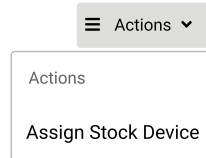
Create account at Senstate cloud

To create account in the cloud service just visit **https://senstate.cloud**, and follow the steps to Sign-Up for an account

Assign the device

For your device to appear in your devices list, you need to assign it first.
Once assigned to your account, you will have full control over the device and all its data.

≡ Actions ⌄

Actions

Assign Stock Device

Step 1
Go to the list of devices and click on Actions menu.
Then click on assign Stock Device

Step 2

Enter security credentials. Credentials of this device include Assigning Token and Assigning Secret that are used to prove ownership over the device and take control of it.

You can find the security credentials on the Device Identity Card of this device.

Congratulations!
your Device is now assigned and fully functional!

2 **Connect to the device via another WiFi device**
You need to connect to the device via your smartphone or other WiFi device. When in calibration mode, the device will appear as Senstate XXXX config, where XXXX are the last 4 symbols of your device token. You have 2 minutes to connect to the device;

4 **Calibration procedure**
You have two different calibration options: single point calibration and two-point calibration. Please choose the preferred option and enter the required values. For each option, you will have to enter the measured value and the correct value. The software will then take into account your custom calibration data and will take into account the values entered into its sensory processing algorithms.

Conditions

01. The current warranty is only valid if the defective product is provided
with properly filled form. If date of purchase is not pointed, the warranty terms is counted since date of product manufacturing, which corresponds to records related to the serial number, also called "Device Token" of the device. Service center reserves the right to refuse free warranty service or parts replacement in case the mentioned above documents are not presented or the filled-in information is not complete or unreadable.

02. The current warranty does not enable the right for compensation and cover of loss recieved
as a result or rearrangement of the product.

03. The current warranty is invalid if Device Token of the product is altered, erased, removed
or unreadable.

04. The current warranty does not cover the following:
a. any adaptations and alterations with the aim of perfection and widening of the common scope of the product application specified in the Instruction Manual.
b. devices not specified in the warranty
c. improper maintenance including, but not limited to: (1) use of the product not according to the Instruction Manual, (2) mounting and maintenance of the product in conditions not corresponding to safety standards and regulations valid in the country of use, (3) incorrect software installation and usage, (4) repair performed by not authorized service centers or dealers, (5) accidents, lighting strikes, floor, fire, (6) faults of system in which the present product had been using.

05. The current warranty does not encroach on legitimate rights of the customer enabled to him by the existing legislation and right of the customer related to the dealer which may appear from the purchase sale agreement had been concluded by them.

Warranty form

Date of purchase: _____

Device Serial No.. _____

Company seller: _____

Adress of Company Seller: _____

_____   _____
Company seller   **Customer**

I have no claims as to appearance and package contents. I accept the conditions of warranty service. All warranty processing centers are listed at www.senstate.com.

Main Service Processing Center
Senstate Technologies SC, 5300 Gabrovo, Bulgaria
email: support@senstate.com, phone: +359 66 817 403