

Honeywell Air Quality Monitor User Manual



Sensing & Internet of Things
www.sensing.honeywell.com

About the Product

The Honeywell Air Quality Monitor is a multi functional device capable of generating real time, numerical air quality data. When used in conjunction with the mobile app, it allows users to monitor air quality at any time, and from anywhere to take appropriate control measures and have peace of mind.

Product Code	PM _{2.5}	Formaldehyde	TVOC	CO ₂	Temp	Humidity	IQ%	Time Alarm	App
HAQSPA_R	✓	✓	✓	✓	✓	✓	✓	✓	✓

Basic Specifications

Product Measurement: 80 x 80 x 22(mm)

Weight: 156g

USB Port: Micro USB

Materials: Aluminum alloy casing Screen:

OLED Touch screen

Input Voltage: 5V

Input Current: 1A

Battery: 18,650 lithium-ion battery Battery

Capacity: 2,600mAh

The IQ%

This output reflects the impact of the surrounding environment on an individual's cognitive abilities, as these abilities may be directly negatively impacted by pollutants in the air. A higher IQ% signifies more ideal environmental air quality, whereas a lower IQ% means the air quality may be improved to give better results. Cognitive abilities mainly include: basic mobility, utilization of mobility, focus level for assigned tasks, information collection, information processing, breadth of thought, strategizing, task orientation, and response to crises.

Note: Cognitive ability differs from individual to individual. IQ% only reflects the impact of air environment elements on cognitive ability. An excellent air environment is capable of effectively raising cognitive ability, thus improving efficiency of various activities.

Range and Precision

Description	Detection Range	Precision/Resolution
PM _{2.5}	100 ~ 999ug/m ³ <100ug/m ³	±15% ±15ug/m ³
HCHO (Formaldehyde)	0 ~2ppm	0.01ppm(resolution)
TVOC	0.12 ~ 0.99ppm	0.01ppm(resolution)
CO ₂	400 ~ 2,000ppm	1ppm(resolution)
Temperature	-10°C ~ 40 °C	±1°C
Humidity	0% ~ 100%	±5%
IQ%	0 ~ 100%	1%(resolution)

Wireless connection: Wi-Fi IEEE 802.11 b/g/n 2.4GHz

Equipment requirements: Supports mobile phones with Android 4.42 or iOS 8.0 or better

Note: Supports only iPhone5 and later versions

App Download

Scan the QR Code or search Honeywell IAQ in Apple Store and Android Market



iOS



Android

Network Connection

- Press and hold the Start button at the top of the device for 5 seconds
- Once the device powers on, press and hold the Wi-Fi icon at the top left of the screen till the device emits a beep and the icon starts blinking. The device may now be connected to the network.
- Download the app and follow the on-screen instructions till your device is connected.

App Icon and Instructions on Colors

	PM _{2.5}	HCHO	TVOC	CO ₂	IQ%
	0 ~ 79ug/m ³	< 0.08ppm	< 0.38ppm	< 1,000ppm	>60%
	80 ~ 199ug/m ³	—	—	—	—
	> 200ug/m ³	>0.08ppm	>0.38ppm	>1,000ppm	<60%

Note: Air quality of PM_{2.5} and IQ% are showed through the change of font color accordingly.

About App Functions

- Self-defined alarm value: Default alarm value is factory setting. For threshold please see explanation above for App icon. The user can define alarm value according to their own needs. The equipment's indicator light and App on the user's mobile phone will display in accordance with the user's definitions.
- Alarm clock: 3 alarms can be set for each device while it is connected to the network. If the alarm rings simply touch the screen or press the Home button to switch it off. The alarm will stop after 10 minutes if there is no activity.

Mode and Setting

Sleep mode: The screen and indicator light will extinguish during set time durations and the frequency of data collection will reduce to once per hour. Switch the mode using the App if the device is connected to a wireless network.

Energy-saving mode: The frequency of data collection for the device will reduce to once per hour. Switch the mode using the App if the device is connected to a wireless network.

CO₂ manual calibration:

- Carry the device outdoors, switch to the CO₂ icon, and then press and hold the center of the screen for 3 seconds until the phrase "being calibrated" appears on the screen and the device enters calibration mode.
- Place the device outdoors for 20 minutes continuously until the phrase "being calibrated" disappears, which means the device will automatically exit the calibration mode upon completing calibration.

CO₂ automatic calibration:

- Enable: The device will automatically calibrate and exit energy savings mode after continuous operation for 60 days. This calibration will be completed in 28 hours.

Interface Instructions

- Enter the main interface after activating the device.
- Press the icon light to switch to main screen; it will show real-time air quality parameter value.
- Flashing icon indicates excess values.
- The device will switch to a standby mode if no activity is detected for 3 minutes. Lightly touch the screen to switch back to the main interface. Standby mode will also be indicated on the app.



Main interface



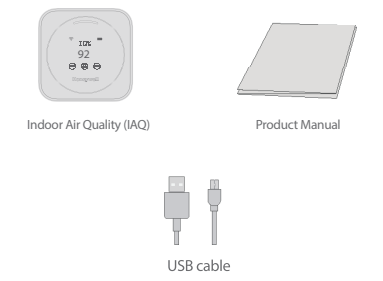
Standby interface

Device indicator light and color: The device's indicator light shows the current air quality indicator for the detection item

Detection Item	Green	Orange	Red
PM _{2.5}	0 ~ 79ug/m ³	80 ~ 199ug/m ³	≥200ug/m ³
Formaldehyde	< 0.08ppm	—	> 0.08ppm
TVOC	< 0.38ppm	—	> 0.38ppm
CO ₂	< 1,000ppm	—	> 1,000ppm
Temperature	-10°C ~ 40°C	—	—
Humidity	0% ~ 100%	—	—
IQ%	> 60%	—	< 60%

Packing List

Indoor Air Quality Monitor x 1; Product Manual x 1; USB cable x 1



- Note when detecting formaldehyde/TVOC: Due to its packaging, the device will display a higher reading when in use for the first time, which is normal. The device may be placed in a well-ventilated area until the reading drops down to 0.08 ppm before use. The formaldehyde/TVOC sensor is an electrochemical sensor. Due to the effects from its electrochemical properties, detection of formaldehyde/TVOC by the electrochemical sensor will be affected by any substance that contains toluene, benzene, alcohol, acetic acid, hydrogen sulfide, carbon monoxide. Please keep the device away from substances such as wine, perfume, cosmetics, pesticides, etc. when in use.
- The date and time settings of the device can only be updated when connected to the internet. Please keep the device connected to the internet.
- Do not charge when the temperature falls below zero.
- The device collects data from incoming air through the built-in fan. It is normal for the device to make low levels of sound.
- When in use, keep the device away from any strong magnet field which may interfere with the built-in sensor (such as PM2.5 sensor).
- If the device fails to connect to the internet, the mDNS and DHCP of the router may experience issues. Please check that these two router functions are enabled or reboot the router to reconnect.
We recommend that the router's default IP address range be 192.168.X.X, with the gateway as 192.168.1.1.

FCC Statements

Note: This product 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 product 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 product 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.

IC Statements

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Caution

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions

Disclaimer

Honeywell International Inc. (abbr. HII) reserves the rights to modify the specifications and other information mentioned in this User Guide without prior notification. In any case, users should confirm with HII whether any changes were made. This publication does not represent any commitments of HII.

HII is not responsible for any technical or editing errors or omissions contained in this manual, nor for any incidents or indirect damages caused by providing, implementing or using this material. HII is not responsible for the softwares or hardwares selected or used in order to achieve the desired results.

The proprietary information contained in this article is protected by copyright. All rights reserved. Without prior written consent from HII, any form of photocopy, copy or translation into other languages is not allowed.

Attention

- To better reflect the true air environment, we recommend continuously monitoring the average values on the app. It is recommended that the device be charged for 24 hours continuously the first time you use it, so that it can be initialized.
- As a protective measure, the powered off device will continue to provide a weak current to the sensor. Even if fully charged, the device will drain the power if it is not used, for a long period of time and must be recharged before being used again.
- When charged, the device will have a slightly higher temperature even at a low power level. The temperature of the fully charged device will not be affected even if it remains connected to its power supply.

Warranty

- Under circumstances where the product is in normal use and maintenance, Honeywell provides users with the warranty that this product will have no defects in processing or materials within one (1) year following the date of purchase. Where Honeywell verifies such product experiences any defect or malfunction in any form within the specified warranty period, Honeywell will repair or replace any defective product upon verification. In case of defective products, users may return such product to the distributor where they made the original purchase.
- This warranty does not cover any defects and malfunction of the product arising from any unauthorized dismantling or reinstallation. This warranty also does not cover any defect or malfunction that results from human factors during the warranty period. Honeywell's sole responsibility is to repair or replace the product based on the aforesaid provisions.
- Honeywell shall not be responsible for any loss or damage of any form, including any accidental or necessary direct or indirect loss as a result of breach of any warranty or any other acts that damage the product.
- This warranty represents the only explicit guarantee as undertaken by Honeywell with respect to such products. Any implied guarantee, including implied guarantees with respect to product marketability and applicability of specific usage, shall not apply.
- This warranty only applies to the main unit of the product, and does not cover the package, manuals, consumables, or other components susceptible to damage or consumption.

—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.

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain

RF Exposure

After the laboratory measurement, the SAR value (0.0085W/kg for Europe, 0.029W/kg for North American) satisfies the RF exposure requirement

To satisfy RF exposure compliance the user should operate the device as the User Manual introduced and the antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Honeywell International Inc declares that the radio equipment type HAQSPA_R are in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <https://honeywellaidc.com/compliance>. For further information, please contact: Hand Held Products Europe BV, Lagelandseweg 70, 6545 CG Nijmegen, The Netherlands

Trademark Rights

Android, Google and other marks are trademarks of Google Inc. Other product names mentioned in this manual may be trademarks or registered trademarks of their respective companies, which are owned by these companies.