

# HAQ SERIES

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Issue 1

## Air Quality Monitor

You likely spend up to 90% of your time inside your home, office, vehicle or other public space. Studies show that indoor air is often more polluted than outdoor air.\* All of that air is likely impacting your physical and mental health.

The Honeywell Air Quality Monitor (HAQ) offers a way to learn what's in the air you breathe. In one convenient, compact device, the HAQ precisely measures the air around you for the most common pollutants and allergens – including carbon dioxide (CO<sub>2</sub>), particulate matter (PM2.5), formaldehyde (HCHO), and total volatile organic compounds (TVOC), as well as temperature and humidity.

The HAQ's "Intelligence Quotient percentage" (IQ%) also shows you, in real time, how air quality impacts your cognitive abilities.

With a distinctive, award-winning design\*\*, the HAQ is sleek and portable. When coupled with the connected mobile phone app, you can use it to check ambient air quality anytime, anywhere, and take appropriate measures to protect yourself and those you care about.

\* United States Environmental Protection Agency, "The Inside Story: A Guide to Indoor Air Quality," Available <https://www.epa.gov/indoor-air-quality-iaq/inside-story-guide-indoor-air-quality> [Accessed Jan 8, 2019].

\*\* 2018 iF World Design Award



*Now you can be aware of what's in the air. Honeywell's Air Quality Monitor lets you monitor the air quality of any indoor environment in real time.*

## FEATURES AND BENEFITS



### TRACKS SIX DIFFERENT INDOOR AIR QUALITY MEASURES

Measurements include CO<sub>2</sub>, PM2.5, HCHO, TVOC, temperature and humidity, and Honeywell's unique IQ%.



### PROPRIETARY IQ% ALGORITHM

Using sensors and a proprietary algorithm, Honeywell's IQ% measure tells you how your cognitive ability is being impacted by the air in your environment.



### WITH SMARTPHONE APP CHECK MEASUREMENTS FROM MOST ANYWHERE

Check the quality of the air in your home or workplace before you get there with the connected mobile app for your smartphone..

**Honeywell**

# AIR QUALITY MONITOR, HAQ SERIES

## Versatile and Easy to Use – Ideal for a Variety of Environments



Track fumes in the kitchen, humidity in a showerless powder room, and ensure that there are no airborne pollutants or allergens where babies are sleeping or children are playing.

### Office



Ensure that the air in your working environment is safe for you and other employees, so everyone can work at optimal cognitive capacity.

### On the Go



Know the quality of the air around you – in the car, in your hotel room or airbnb, while traveling for work or on vacation, or while dining out.

### Enterprise






Show that you care for your customers and visitors in your hotel, hospital, school, university, library or other public space, by assuring them of the highest environmental standards.

### MONITORS SIX AIR QUALITY INDICATORS IN ONE CONVENIENT DEVICE

INDICATOR	DESCRIPTION	POTENTIAL ADVERSE EFFECT
<b>PARTICULATE MATTER (PM2.5)</b>	Particles in the air with a diameter of 0.1 to 2.5 micrometres - this is 3% the diameter of a human hair. It can include soot, combustion byproducts, fossil fuel smoke, cigarette smoke, dust, allergens like pollen and mold, etc.	PM2.5 irritants may lodge in the lungs, causing asthma, respiratory inflammation, aggravated allergies, lung and heart conditions, and may be carcinogenic after long-term exposure increasing mortality risk.
<b>FORMALDEHYDE (HCHO)</b>	Colorless, flammable, and strong-smelling gas released into the air by "off gassing or out gassing" of pressed wood, particlewood and plywood products, wall insulation, some new furniture, glue, adhesive products, etc.	May cause watery eyes; burning sensations in the eyes, nose, and throat; coughing; wheezing; nausea; skin irritation. Has been recognized as a probable human carcinogen.
<b>TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC)</b>	Emitted by a wide array of household products including paints and varnishes; cleaning and disinfecting products; and cosmetics. Concentrations are consistently higher indoors (up to 10 times higher) than outdoors.	May cause eye, nose, and throat irritation; headaches; loss of coordination and nausea; damage to liver, kidney, and central nervous system; potential cancer; unknown short-term and long-term adverse effects.
<b>CARBON DIOXIDE (CO<sub>2</sub>)</b>	Colorless and odorless gas produced by burning carbon and organic compounds, and by respiration. Main cause of buildup is poor ventilation.	May cause lack of concentration; dizziness; headache; visual and hearing dysfunction; unconsciousness.
<b>HUMIDITY</b>	Water vapor suspended in the air.	Increased levels may cause excessive mold/fungus and bacteria to grow; decreased levels may cause skin problems, breathing issues, itchy eyes, and aggravated allergic reactions.
<b>IQ%</b>	Honeywell developed a proprietary algorithm that can determine the percentage of IQ being used, depending on the quality of the air the person breathes. This does not refer to individual IQ, just to a percentage of total cognitive ability. It varies depending on environmental factors directly impacted by CO <sub>2</sub> , TVOC, and PM2.5 levels. Excellent air environment can raise cognitive ability, and improve various activities.	Lower IQ% levels means your environment may cause poor performance of advanced cognitive functions

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## CHANGING ICONS AND COLORS SHOW AIR QUALITY AT A GLANCE

INDICATOR	GREEN 	ORANGE 	RED 	DETECTION RANGE
PM2.5	0 $\mu\text{g}/\text{m}^3$ to 79 $\mu\text{g}/\text{m}^3$	80 $\mu\text{g}/\text{m}^3$ to 199 $\mu\text{g}/\text{m}^3$	$\geq 200 \mu\text{g}/\text{m}^3$	0 $\mu\text{g}/\text{m}^3$ to 1000 $\mu\text{g}/\text{m}^3$
HCHO	<0.08 ppm	–	>0.08 ppm	0 ppm to 2 ppm
TVOC	<0.38 ppm	–	>0.38 ppm	0.12 ppm to 0.99 ppm
CO <sub>2</sub>	<1000 ppm	–	>1000 ppm	400 ppm to 2000 ppm
IQ%	>60%	–	<60%	0% to 100%
HUMIDITY	–	–	–	0% to 100%
TEMPERATURE	–	–	–	-10°C to ~40°C [14°F to ~104°F]

### Check Air Quality Before You Get There

Use the mobile app to check air quality at your home or workplace before you get there!

#### Easy app download and setup:

- Activate the HAQ by pressing and holding the “Start” button (located on the top) for five seconds.
- Use your smartphone to download the Honeywell IAQ client app. You can download directly from the Apple or Google stores, or by scanning the appropriate QR code shown below if you phone has a scanning app or embedded capability
- Launch the app. Connect the Honeywell Air Quality Monitor by following the app’s instruction interface.
- Complete the dashboard for easy monitoring of values at home or on the go.

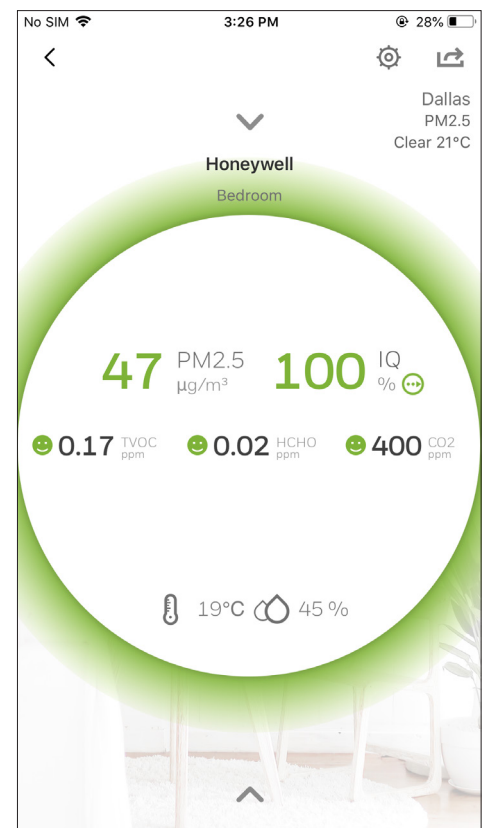
iOS



Android



### Monitor Display Panel on Mobile Phone



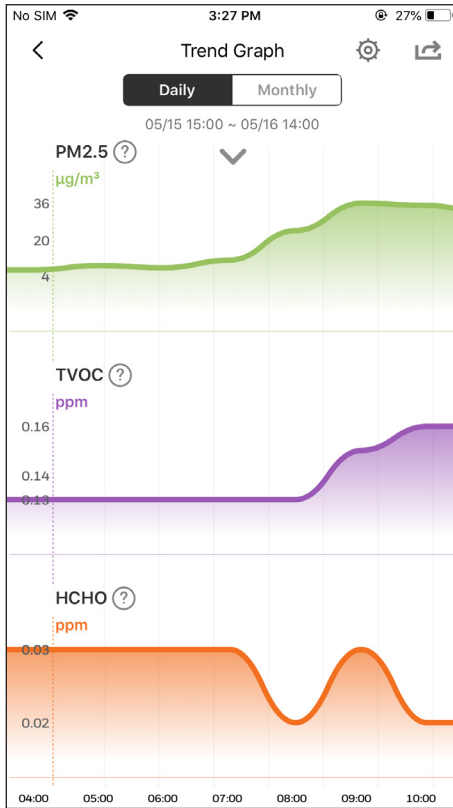
## SPECIFICATIONS

CHARACTERISTIC	PARAMETER
DIMENSIONS (H X W X D)	80 mm x 80 mm x 22 mm [3.1 in x 3.1 in x 0.87 in]
WEIGHT	156 g
CHARGING INTERFACE	MicroUSB
HOUSING MATERIALS	aluminum alloy casing
SCREEN	OLED touch screen
INPUT VOLTAGE	5 V
INPUT CURRENT	1 A
BATTERY	2600 mAh lithium-ion battery

CHARACTERISTIC	PARAMETER
WIRELESS CONNECTION	Wi-Fi IEEE 802.11 b/g/n 2.4 GHz
EQUIPMENT REQUIREMENTS	supports mobile phones with Android 4.4.2 or iOS 8.0 or better, iPhone5 and later versions
CHARGING TIMES:	
INITIAL	6 hr
SUBSEQUENT	6 hr
BATTERY LIFE	After complete charge: Normal mode - 10 hours; Energy saving mode - 24 hours
BATTERY CAPACITY	2600 mAh
MODEL NUMBER	HAQSPA_R

## IQ% App Screen Tells It All

The HAQ IQ% app screen tells you at a glance how well you can function in your current environment. The tracking screens let you track results over time. This gives you the opportunity to make changes for the better.



## FOR MORE INFORMATION

Honeywell Sensing and Internet of Things services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit [sensing.honeywell.com](http://sensing.honeywell.com) or call:

Asia Pacific +65 6355-2828  
Europe +44 1698 481481  
USA/Canada +1-302-613-4491

## Honeywell Sensing and Internet of Things

9680 Old Bailes Road  
Fort Mill, SC 29707  
[honeywell.com](http://honeywell.com)

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**The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

## ⚠ WARNING PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

## ⚠ WARNING MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**