

Indoor Air Quality Sensors

Device	air-Q smart indoor air Quality Monitor	
Quantity	240 x air-Q with 10 Sensors	
Hardware equipment / scope of delivery	<ul style="list-style-type: none"> • WIFI module (can be optionally deactivated) • 16 GB SD memory • 240 V power supply unit with Euro plug • Power cable USB A to USB C • Power bank for a running time of at least 10 hours with charge through function (uninterruptible power supply) 	
Sensors (Please note the data sheet in the appendix)	<ul style="list-style-type: none"> • Volatile organic substances - VOC (aldehydes, methane, alcohols, etc.) • Carbon dioxide • Carbon monoxide • Fine dust (PM1, PM2.5, PM10) 	<ul style="list-style-type: none"> • temperature • humidity • Air pressure • Noise
Casing	Consumer housing for indoor table installation. The device is intended for indoor use.	
Software		
	<ul style="list-style-type: none"> - The sensor data is accessed via local software. (e.g. the free smartphone app for Android and iOS) - Web data connection optionally possible (guaranteed to be usable for at least 6 months free of charge), if integrated into the WLAN. - Operation also possible without WLAN. - Measurement data can be called up via the device website. - All data is stored on the device and can, among other things, copied from the SD card to a PC and processed further (CSV format). - Every second measurement interval; Data storage on the internal memory every two minutes. - Individually configurable LED display on the device (18 colored LEDs signal the air quality). - Data is optionally encrypted with an individual password. - Data retrieval via MQTT and direct interface only with the "SCIENCE" option. The Science Option is NOT included in the offer. 	

Appendix 1: Data sheet of the sensors and the hardware

KOHLENSTOFFDIOXID CO₂

Bereich: 300 – 10000 ppm

Auflösung: 1 ppm

Genauigkeit: ± 50 ppm, ± 3 % des Messwertes



KOHLENSTOFFMONOXID CO

Bereich: 0 – 5700 mg/m³ (0 – 5000 ppm)

Auflösung: 0,05 mg/m³ (0 – 180 mg/m³), 1,6 mg/m³ (>180 mg/m³)

Genauigkeit: ± 8 % des Messwertes



STICKSTOFFDIOXID NO₂

Bereich: 0 – 52000 µg/m³ (0 – 20000 ppb)

Auflösung: 0,8 µg/m³ (0 – 2000 µg/m³), 110 µg/m³ (>2000 µg/m³)

Genauigkeit: ± 8 % des Messwertes



FLÜCHTIGE ORGANISCHE SUBSTANZEN VOC

Bereich: 0 – 1180 ppb

Auflösung: 1 ppb

Genauigkeit: ± 5 % des Messwertes



FEINSTAUB PM₁, PM_{2.5}, PM₁₀

Bereich: 0 – 1000 µg/m³

Auflösung: 1 µg/m³

Genauigkeit: ± 10 µg/m³, ± 10 % des Messwertes



TEMPERATUR

Bereich: -40 – 125 °C

Auflösung: 0,1 °C

Genauigkeit: $\pm 0,1$ °C



RELATIVE LUFTFEUCHTIGKEIT

Bereich: 0 – 100 %

Auflösung: 0,1 %

Genauigkeit: ± 2 % des Messwertes



ABSOLUTE LUFTFEUCHTIGKEIT

Bereich: 0 – 200 g/m³

Auflösung: 0,05 g/m³

Genauigkeit: ± 2 % des Messwertes

**TAUPUNKT**

Bereich: -88 – 125 °C

Auflösung: 0,1 °C

Genauigkeit: ± 2 % des Messwertes

**LUFTDRUCK**

Bereich: 500 – 1200 hPa

Auflösung: 1 hPa

Genauigkeit: ± 5 hPa

**LÄRM**

Bereich: 30 – 109 dB(A)

Frequenz: >200 Hz

Auflösung: 1 dB

Genauigkeit: ± 2 DB



Measurement interval: 1.8 seconds (can be read out in real time via our smartphone app)

Data can be accessed using a Python script. (ONLY WITH AIR-Q SCIENCE OPTION).

Data recording interval for measurement curves: 2 minutes

The air-Q has LEDs that indicate the air quality. The LEDs provide status information and data on the air quality during continuous operation. The fewer lights that are illuminated, the worse the air quality. The lamps turn red if critical values have been reached. In addition, a loud warning tone sound. A full list of LED codes can be found on airq.com/documents.

- Initial setup is done via smartphone or web browser.
- Power options: 5 V USB plug-in power supply (EU Standard), and power bank with charge through function for minimum 8 hours battery back-up.
- No wall mounting options, to be used as a standalone device.
- Wireless standard Wifi. Air-Q can also be operated without any WLAN connection. There is no PoE / LAN Connectivity and no LTE Connectivity.