

TECHNICAL INFORMATION AND SPECIFICATION



DIMENSIONS 135 × 49 × 118 mm

OPERATION REQUIREMENTS 0 – 50 °C
0 – 95 % humidity

POWER SUPPLY 5 V Micro-USB and USB-C power supply (800 mA)

POWER CONSUMPTION 260 mA in continuous mode (~ 12 h with optional 3500 mAh power bank)

WEIGHT 180 g without Power Supply // 285 g including Power Supply

THE ACTUAL SENSOR EQUIPMENT OF YOUR DEVICE IS EXPLAINED IN THE THE RESPECTIVE PRODUCT DESCRIPTION / THE RESPECTIVE OFFER IS EXPLAINED

OXYGEN O₂

Range: 0 – 25 %
 Resolution: 0.01 %
 Precision: ± 0.1 %, ± 2 % of reading
 Sensor lifetime: up to 5 years*



CARBON DIOXIDE CO₂

Range: 300 – 5.000 ppm
 Resolution: 1 ppm
 Precision: ± 50 ppm, ± 3 % of reading
 Sensor lifetime: up to 10 years*



CARBON MONOXIDE CO

Range: 0 – 5700 mg/m³ (0 – 5000 ppm)
 Resolution: 0.05 mg/m³ (0 – 180 mg/m³), 1.6 mg/m³ (>180 mg/m³)
 Precision: ± 8 % of reading
 Sensor lifetime: up to 10 years*



NITROGEN DIOXIDE NO₂

Range: 0 – 52000 µg/m³ (0 – 20000 ppb)
 Resolution: 0.8 µg/m³ (0 – 2000 µg/m³), 110 µg/m³ (>2000 µg/m³)
 Precision: ± 8 % of reading
 Sensor lifetime: up to 5 years*



SULFUR DIOXIDE SO₂

Range: 0 – 36300 µg/m³ (0 – 20000 ppb)
 Resolution: 0.9 µg/m³ (0 – 2900 µg/m³), 130 µg/m³ (>2900 µg/m³)
 Precision: ± 8 % of reading
 Sensor lifetime: up to 7 years*



OZONE O₃

Range: 0 – 10000 µg/m³ (0 – 5000 ppb)
 Resolution: 0.4 µg/m³ (0 – 1100 µg/m³), 75 µg/m³ (>1100 µg/m³)
 Precision: ± 8 % of reading
 Sensor lifetime: up to 5 years*



VOLATILE ORGANIC COMPOUNDS VOC

Range: 0 – 1180 ppb
 Resolution: 1 ppb
 Precision: ± 5 % of reading
 Sensor lifetime: up to 10 years*



PARTICULATES PM₁, PM_{2.5}, PM₁₀

Range: 0 – 1000 µg/m³
 Resolution: 1 µg/m³
 Precision: ± 10 µg/m³, ± 10 % of reading
 Sensor lifetime: No wear*



TEMPERATURE

Range: -40 – 125 °C
 Resolution: 0.1 °C
 Precision: ± 0.1 °C
 Sensor lifetime: up to 10 years*

**RELATIVE HUMIDITY**

Range: 0 – 100 %
 Resolution: 0.1 %
 Precision: ± 2 % of reading
 Sensor lifetime: No wear*

**ABSOLUTE HUMIDITY**

Range: 0 – 200 g/m³
 Resolution: 0.05 g/m³
 Precision: ± 2 % of reading
 Sensor lifetime: No wear*

**DEW POINT**

Range: -88 – 125 °C
 Resolution: 0.1 °C
 Precision: ± 2 % of reading
 Sensor lifetime: No wear*

**AIR PRESSURE**

Range: 500 – 1200 hPa
 Resolution: 1 hPa
 Precision: ± 5 hPa
 Sensor lifetime: No wear*

**NOISE**

Range: 30 – 109 dB(A)
 Resolution: 1 dB
 Precision: ± 2 dB
 Sensor lifetime: No wear*



* The service life of the sensors applies when used in a normal household environment

OPTIONAL INTERNAL

Alcohols, Ammonia, Arsine, Butane, Bromine, Chlorine, Chlorine dioxide, Diborane, Ethane, Ethylene oxide, Fluorine, Formaldehyde, Hydrazine, Hydrogen, Hydrogen bromide, Hydrogen chloride, Hydrogen cyanide, Hydrogen fluoride, Hydrogen selenide, Hydrogen sulfide, Isobutane, Methane, Methanethiol, Nitrogen monoxide, Nitrous oxide, Phosgene, Phosphine, Propane, Propene, Silane, Tetrahydrothiophene

FIRE ALARM

Multi-alarm system: smoke, carbon monoxide, and temperature

COMMUNICATION

- Internal Wi-Fi hotspot, if no configured Wi-Fi is within range
- Connection to configured Wi-Fi using SSID and password (WPA2)

- Internal webserver publishes measured values using the JSON format (visualized by the air-Q mobile phone application and can also be read by third party software or home automation)
- Optional: data transmission to cloud allows access from outside the local Wi-Fi + push notifications to mobile device

ADDITIONAL PROPERTIES

- Measurement interval: 4 s in continuous mode, 10 min in power safe mode
- Rating and summarization of all measured gases by calculated Health and Performance index
- Optical and acoustical warning for defined ranges (from uncritical to alarm)
- Automatic monitoring of sensor functionality
- Internal data storage: 16 GB (> 20 years of measured data)

MOBILE PHONE APPLICATION

- Quick overview of the current total air quality regarding health and performance and recommendations for actions leading to quick improvement of the air quality
- Detailed rating of the current individual gas concentration with respect to values
- In greater depth information on health implications of the individual gases based on latest medical publications and graph of real-time measured data
- Evaluation of stored data with the possibility of direct comparison of values from different gases as well as CSV export for further evaluation with other software
- Device configuration