

AQBot Variants

Parameter	ID	Range	Resolution	Min. Det.	Working Principle	Sensor Life
 Ammonia (NH ₃)	OZNH3_1* OZNH3_2* OZNH3_3	0-20 ppm 0-100 ppm 0-1000 ppm	0.3 ppm 0.3 ppm 2 ppm	0.3 ppm 0.3 ppm 2 ppm	Electrochemical	2 Years
 Methane (CH ₄)	OZCH4_1 OZCH4_2	500-1500 ppm 50-10,00,000 ppm	1 ppm 1 ppm	500 ppm 500 ppm	Molecular Property Spectrometer (MPS)	2 Years
 Hydrogen Sulfide (H ₂ S)	OZH2S_1* OZH2S_2 OZH2S_3 OZH2S_4	0-1.5 ppm 0-50 ppm 0-200 ppm 0-2000 ppm	0.001 ppm 0.05 ppm 0.2 ppm 2 ppm	0.01 ppm 0.05 ppm 0.2 ppm 2 ppm	Electrochemical	2 Years
 Total Volatile Organic Compounds (VOC)	OZTVOC_1* OZTVOC_2	0-40 ppm 0-200 ppm	0.001 ppm 0.05 ppm	0.005 ppm 0.05 ppm	Photo Ionization Detection (PID)	5000 Hours
 Particulate Matter (PM _{2.5} , PM ₁₀ , PM ₁ , PM ₁₀₀)	OZPM_1*	Upto 5000 µg/m ³ for PM ₁ , PM _{2.5} , PM ₁₀ Upto 30 mg/m ³ for PM ₁₀₀	0.1 µg/m ³	1 µg/m ³	Optical Particle Counter	5000 Hours
 Noise	OZN_1*	Up to 140 dB	1 dB	0.5 dB	Capacitive	2 Years
 Chlorine (Cl ₂)	OZCl2_1* OZCl2_2	0-20 ppm 0-50 ppm	0.05 ppm 0.1 ppm	0.05 ppm 0.1 ppm	Electrochemical	2 Years
 Hydrogen Chloride (HCl)	OZHCl_1 OZHCl_2	0-50 ppm 0-100 ppm	0.5 ppm 1 ppm	0.5 ppm 1 ppm	Electrochemical	2 Years
 Formaldehyde (CH ₂ O)	OZCH2O_1* OZCH2O_2	0-10 ppm 0-50 ppm	0.05 ppm 0.1 ppm	0.05 ppm 0.1 ppm	Electrochemical	2 Years
 Methyl Mercaptan (CH ₃ SH)	OZCH3SH_1*	0-10 ppm	0.1 ppm	0.1 ppm	Electrochemical	2 Years
 Sulfur Dioxide (SO ₂)	OZSO2_1* OZSO2_2 OZSO2_3	0-10 ppm 0-100 ppm 0-2000 ppm	0.001 ppm 0.2 ppm 5 ppm	0.01 ppm 0.2 ppm 5 ppm	Electrochemical	2 Years
 Nitrogen Dioxide (NO ₂)	OZNO2_1* OZNO2_2 OZNO2_3	0-10 ppm 0-100 ppm 0-500 ppm	0.001 ppm 0.2 ppm 0.5 ppm	0.01 ppm 0.2 ppm 0.5 ppm	Electrochemical	2 Years
 Carbon Monoxide (CO)	OZCO_1* OZCO_4 OZCO_2 OZCO_3	0-5 ppm 0-50 ppm 0-100 ppm 0-1000 ppm	0.01 ppm 0.05 ppm 0.1 ppm 0.75 ppm	0.01 ppm 0.05 ppm 0.1 ppm 0.75 ppm	Electrochemical	2 Years
 Nitric Oxide (NO)	OZNO_1* OZNO_2	0-5 ppm 0-100 ppm	0.001 ppm 0.5 ppm	0.01 ppm 0.5 ppm	Electrochemical	2 Years
 Carbon Dioxide (CO ₂)	OZCO2_1*	0-5000 ppm	1 ppm	400 ppm	Non-Dispersive Infrared	2 Years

*Indicates standard delivery timeline

Specifications

Mechanical

Size	210MM(W) x 258mm(H) X 105mm(D)
Weight	2.8 Kg (instrument weight)
Material	NEMA 4X Fire Retardant FRP Enclosure
Certifications	CE, IP66, RoHS
Installation Method	Pole Mount / Wall Mount

Electrical

Avg. Power Consumption	3.5 Watt (Actual consumption depends upon the number of parameters)
Power Input Options	AC : External 90-265V AC, 50-60Hz DC : Uninterrupted 12V DC or 24V DC, 2 Ampere
Certifications	CE, RoHS, cURus UL, IEC/EN61000-4 and CISPR32/EN55032 & IEC/UL/EN62368 standard.

Technical

Processor	Quad Core ARM Cortex
Memory	2GB RAM / 8GB eMMC ROM
Device Interface	Display / On-device Software / API / Cloud Platform
Internal Data Storage	Upto 8 GB or 90 days

Environmental







Operating Temperature	-20 °C to 60 °C
Operating Humidity	0-93% RH
Recommended Humidity	15-90% RH
Storage Conditions	10 - 40°C

Communication

Data Interval	2-30 (configurable) minutes
Data-push Protocol	HTTP post request to host server
Data-pull	HTTP request on device IP
Firmware Updates	Over-The-Air Firmware Update
Standby Connectivity	GSM (2G/3G/4G) for remote diagnosis, FOTA updates, and cloud calibration
Certification	PTCRB, CE, FCC, RoHS, ICASA, GCF

Sensing

Target Parameter	Refer Parameter Table
Gas Sample Mode	Natural Diffusion
Warm up time	1 hour(cold start) for Gas Monitoring
Response Time (t90)	< 60 seconds
Signal Refresh Rate	5 seconds
Measuring Range	Refer Parameter Table
Accuracy	<±5% FS (at 20±5°C/50±20%RH)
Sensor Life	Refer Parameter Table

	Connectivity Options	Specification
Wireless	 GSM	Global 2G / 3G / 4G
	 LTE	CAT-M1
	 WiFi	AP Mode and Station Mode
Wired	 ETHERNET	Static / DHCP Configuration
	 Modbus	RS485 RTU / TCP
	 RELAY	2 Channel Relay

Note: LoRa, NBIoT, Sigfox available as an option