

AQBot Specifications



GENERAL

Processor	Quad-Core ARM Cortex A-72
Memory	2GB RAM, 8GB eMMC ROM
Internal data storage	Up to 12 months
Device interface	On-device software, API, Display
Display specification	6 digit 7 Segment Display

ELECTRICAL

Power supply	AC: 90VAC- 265VAC 50/60Hz
Power consumption	3.5 W (average)
Wiring connections	Pre-wired supplied with 2m cable

GENERAL PERFORMANCE

Operation temperature	-20 to +60°C
Operation humidity	0 - 90%RH, non-condensing
Storage conditions	10 - 40°C
Net weight	2.8 kg
Dimensions	210mm (W) x 258mm (H) x 105mm (D)
Installation method	Wall mount / Pole mount
Housing	NEMA-4X Fire-retardant FRP enclosure
Weather protection	Weather Resistant IP66 Enclosure

COMMUNICATION

Wireless communications	Global 2G/3G/4G, LoRa, LTE, NB-IoT, Sigfox, Wifi (Any one)
Wired communications	Ethernet, Modbus TCP, Modbus RTU, RS-485, CANbus (Any one)
Analog output	1 x 4~20mA Current Loop with 12-bit Resolution
Relay outputs	2 programmable relays, volt free relay contacts (1NO, 1 NC)
Beacon/sounder	Built-in, RED flashing light with alarm sounder 95db @ 1m

SENSING

Target gas	Refer parameter table
Gas sample mode	Natural diffusion
Warm up time	1 hour (cold start) for gas monitoring
Response time (t ₉₀)	< 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

ID	Parameter	Range	Resolution	Min. Det.	Working Principle	Sensor Life
OZNH3_1	Ammonia (NH ₃)	0-20 ppm	0.3 ppm	0.3 ppm	Electrochemical Sensing	2 Years
OZNH3_2		0-100 ppm	0.3 ppm	0.3 ppm		
OZNH3_3		0-1000 ppm	2 ppm	2 ppm		
OZCH4_1	Methane (CH ₄)	500-1500 ppm	1 ppm	500 ppm	Molecular Property Spectrometer (MPS)	2 Years
OZH2S_1	Hydrogen Sulfide (H ₂ S)	0-10 ppm	0.001 ppm	0.01 ppm	Electrochemical Sensing	2 Years
OZH2S_2		0-50 ppm	0.05 ppm	0.05 ppm		
OZH2S_3		0-200 ppm	0.2 ppm	0.2 ppm		
OZH2S_4		0-2000 ppm	2 ppm	2 ppm		
OZTVOC_1	Total Volatile Organic Compounds (VOC)	0-40 ppm	0.001 ppm	0.005 ppm	Photo Ionization Detection (PID)	5000 Hours
OZTVOC_2		0-200 ppm	0.05 ppm	0.05 ppm		
OZPM_1	Particulate Matter (PM _{2.5})	Upto 5000 µg/m ³	0.1 µg/m ³	1 µg/m ³	Optical Particle Counter	5000 Hours
OZPM_2	Particulate Matter (PM ₁₀)	Upto 5000 µg/m ³				
OZPM_3	Particulate Matter (PM ₁)	Upto 5000 µg/m ³				
OZPM_4	Particulate Matter (PM ₁₀₀)	Upto 30 mg/m ³				
OZN_1	Noise	up to 140 dBA	1 dB	0.5 dB	Capacitive	2 Years
OZCL2_1	Chlorine (Cl ₂)	0-20 ppm	0.05 ppm	0.05 ppm	Electrochemical Sensing	2 Years
OZCL2_2		0-50 ppm	0.1 ppm	0.1 ppm		
OZHCL_1	Hydrogen Chloride (HCl)	0-50 ppm	0.5 ppm	0.5 ppm	Electrochemical Sensing	2 Years
OZHCL_2		0-100 ppm	1 ppm	1 ppm		
OZCH2O_1	Formaldehyde (CH ₂ O)	0-10 ppm	0.05 ppm	0.05 ppm	Electrochemical Sensing	2 Years
OZCH2O_2		0-50 ppm	0.1 ppm	0.1 ppm		
OZCH3SH_1	Methyl Mercaptan (CH ₃ SH)	0-10 ppm	0.1 ppm	0.1 ppm	Electrochemical Sensing	2 Years
OZSO2_1	Sulfur Dioxide (SO ₂)	0-20 ppm	0.001 ppm	0.01 ppm	Electrochemical Sensing	2 Years
OZSO2_2		0-100 ppm	0.2 ppm	0.2 ppm		
OZSO2_3		0-2000 ppm	5 ppm	5 ppm		
OZNO2_1	Nitrogen Dioxide (NO ₂)	0-20 ppm	0.001 ppm	0.01 ppm	Electrochemical Sensing	2 Years
OZNO2_2		0-100 ppm	0.2 ppm	0.2 ppm		
OZNO2_3		0-500 ppm	0.5 ppm	0.5 ppm		
OZCO_1	Carbon Monoxide (CO)	0-50 ppm	0.1 ppm	0.1 ppm	Electrochemical Sensing	2 Years
OZCO_2		0-100 ppm	0.1 ppm	0.1 ppm		
OZCO_3		0-1000 ppm	0.75 ppm	0.75 ppm		
OZNO_1	Nitric Oxide (NO)	0-20 ppm	0.001 ppm	0.01 ppm	Electrochemical Sensing	2 Years
OZNO_2		0-100 ppm	0.5 ppm	0.5 ppm		
OZCO2_1	Carbon Dioxide (CO ₂)	0-5000 ppm	1 ppm	400 ppm	NDIR	2 Years