AQBot™ Noise

OIZOM
REDEFINING RESOURCES

Industrial Grade Single Parameter Air Quality Monitor

AQBot™ is an industrial air quality monitor with automation capabilities. AQBot™ Series offers a wide range of air quality parameters to choose from. The range of available parameters consists of all the important Gases, Particulates, and Noise related monitoring for Industrial scenarios. AQBot™ product range consists of critical ambient parameters and toxic gases like Total Volatile Organic Compounds (TVOC), Ammonia (NH_3), Hydrogen sulfide (H_2S), Methane (CH_4), Carbon Monoxide (CO), Formaldehyde (CH_2O), Particulate Matter (PM_1, $PM_{2.5}$, PM_{10}, PM_{100}), Ambient Noise, etc. The AQBot series is designed for easy and inexpensive maintenance.

Product Features

On Device Display	Ultimate Durability	Weatherproof Enclosure
Compact and Lightweight	Internal Data Storage	SMS and Email Alerts
Real-Time Data	Built-in Relay	Wired Communications
Wireless Communications	Over-The-Air Updates	Data Analytics Software

Why Monitor Noise?

When sound levels reach a high enough intensity, it may be damaging to hearing. Environmental noise monitoring is the measurement of noise in an outdoor environment caused by transport, industry and recreational activities. Some of its applications include monitoring of construction sites, aircraft noise, road traffic noise, entertainment venues and neighborhood noise. Excessive levels or periods of noise can have numerous long-term negative health effects such as hearing loss, a rise in blood pressure, an increase in stress, and an increased incidence of coronary artery disease. Monitoring noise levels helps to determine the appropriate noise control measures that need to be put in place.

Product Applications

All Industries
Every operation including rotary mechanical components

AQBot™ Noise

The best in class Noise Monitor

AQBot™ consists of the NEMA 4X approved enclosure to last long in a harsh industrial environment. It offers all industry-standard output signals like MODBUS, CANbus, RS-485, RS-232, etc. In addition, the fixed air quality monitor can also offer other communication modes like GSM, GPRS, 3G, WiFi, LoRa, Ethernet, etc. The monitor can easily integrate with existing building monitoring or plant control systems infrastructure. Using such a wide range of communication capabilities, AQBot™ enables the Industrial Internet Of Things (IIoT) which is the backbone of Industrial Revolution 4.0. Using such a wide range of communication capabilities, AQBot™ enables the Industrial Internet Of Things (IIoT) which is the backbone of Industrial Revolution 4.0.

Key Benefits

- Quick sensing for threshold based alerts
- Highly accurate data to detect low ppb concentrations
- Robust built to sustain harsh industrial conditions
- Easy data integrations to match industry standards
- In built relay operation for automation
- Data transmissions through multiple channels
- Real time data display for keeping a check
- Siren and strobe for audio and visual alerts
- Effortless installations with versatile mounting arrangement

AQBot Specifications

ID	PARAMETER	RANGE	RESOLUTION
OZN_1	Noise	up to 140 dBA	1 dB

Capacitive

TECHNICAL

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
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) × 258mm (H) × 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

Warm up time	15 minutes (cold start)
Response Time (T90)	< 60 Seconds
Signal refresh rate	5 Seconds
Accuracy	<±5%FS (at 20±5°C/ 50±20%RH)
Sensor life	2 years

Accurate Air Quality Monitoring And Advanced Data Analytics