AQBot™ H_2S

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 Hydrogen Sulphide?

H_2S is colorless, flammable, poisonous, and corrosive gas with one sulfur atom bonded to two hydrogen atoms. It is also known as sewer gas, swamp gas, or manure gas. H_2S has a noticeable rotten-egg odour detectable at concentrations as low as 0.5 ppb. Prolonged exposure to H_2S can have several hazardous effects, like low blood pressure, headache, dizziness, nausea, and vomiting, as well as coughing and difficulty in breathing. While higher levels can cause shock, convulsions, coma, and death. Industrial processes such as production of coke, viscose rayon production, wood pulp, etc. emit H_2S in the air. Other sources include sulfur extraction processes, tanning, mining, sugar-beet processing, and hot-asphalt paving. Real-time monitoring of H_2S levels helps in determining the source of the odour as well as formulating an action plan to control odour for workplace safety.

Product Applications

Wastewater Treatment Plants
Sludge storage and anaerobic digestion

Leather Industry
Beamhouse, unhairing and liming process

Fisheries
From rotting of fish in storage and processing

AQBot™ H_2S

The best in class Hydrogen Sulphide Monitor

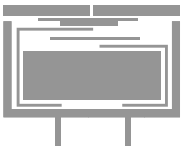
AQBot™ consists of the NEMA 4X approved enclosure to last long in a harsh industrial environment. It offers all industry-standard output signals like MODBUS, CANbus, RS-485, RS-232, etc. In addition, the fixed air quality monitor can also offer other communication modes like GSM, GPRS, 3G, WiFi, LoRa, 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
OZH2S_1	Hydrogen Sulfide	0-1.5 ppm	0.001 ppm
OZH2S_2	(H_2S)	0-50 ppm	0.05 ppm
OZH2S_3		0-200 ppm	0.2 ppm
OZH2S_4		0-2000 ppm	2 ppm



Electrochemical Sensing

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, CAN bus (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

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
Accuracy	<±5%FS (at 20±5°C/ 50±20%RH)
Sensor life	2 Years

Accurate Air Quality Monitoring And Advanced Data Analytics

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