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 (NH₃), Hydrogen sulfide (H₂S), Methane (CH₄), Carbon Monoxide (CO), Formaldehyde (CH₂O), Particulate Matter (PM₁, PM₂.₅, PM₁₀, PM₁₀₀), 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?**

H₂S 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. H₂S has a noticeable rotten-egg odour detectable at concentrations as low as 0.5 ppb. Prolonged exposure to H₂S 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 H₂S in the air. Other sources include sulfur extraction processes, tanning, mining, sugar-beet processing, and hot-asphalt paving. Real-time monitoring of H₂S 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™

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

<table>
<thead>
<tr>
<th>ID</th>
<th>PARAMETER</th>
<th>RANGE</th>
<th>RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>OZH2S_1</td>
<td>Hydrogen Sulfide</td>
<td>0-10 ppm</td>
<td>0.001 ppm</td>
</tr>
<tr>
<td>OZH2S_2</td>
<td>(H₂S)</td>
<td>0-50 ppm</td>
<td>0.05 ppm</td>
</tr>
<tr>
<td>OZH2S_3</td>
<td></td>
<td>0-200 ppm</td>
<td>0.2 ppm</td>
</tr>
<tr>
<td>OZH2S_4</td>
<td></td>
<td>0-2000 ppm</td>
<td>2 ppm</td>
</tr>
</tbody>
</table>

**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
- 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

**Electrical**

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

**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

**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 (INO, 1 NC)
- Beacon/sounder: Built-in, RED flashing light with alarm sounder 95db @ 1m

Accurate Air Quality Monitoring And Advanced Data Analytics

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