

[Year]

AIR QUALITY MONITORING SYSTEM

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These are various types of sensors used for monitoring air quality and detecting specific gases:

1. Ammonia Sensor: Measures ammonia gas levels, often used in agricultural and industrial settings.
2. Carbon Monoxide Sensor: Detects carbon monoxide (CO) gas, commonly used in homes and vehicles to prevent CO poisoning.
3. Electrochemical VOC Sensors: Utilize electrochemical reactions to detect volatile organic compounds (VOCs) often found in indoor air pollutants.
4. Hydrogen Sulfide Sensors: Monitor hydrogen sulfide (H₂S) gas levels, important in industrial and environmental applications.
5. Nitric Oxide Sensors: Measure nitric oxide (NO) concentrations, often used in medical equipment and air quality monitoring.
6. Nitrogen Dioxide Sensors: Detect nitrogen dioxide (NO₂) levels, commonly used for air quality assessment in urban areas.
7. Ozone Sensors: Measure ozone (O₃) concentrations, crucial for tracking ground-level ozone in relation to air pollution.
8. AQI Sensors (Air Quality Index Sensors): These sensors calculate the Air Quality Index (AQI) by considering multiple pollutants like PM_{2.5}, PM₁₀, CO, NO₂, and SO₂ to provide a comprehensive air quality assessment.

Each sensor works based on specific principles, such as chemical reactions, electrical conductivity changes, or optical methods, to detect and quantify the presence of the target gas. Data from these sensors can be used to assess air quality, ensure safety, and make informed decisions about environmental and health concerns.