

Gas Sensors Market to Witness a Growth Trajectory of US\$ 3,632.69 Million By 2031 | Astute Analytica

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/EINPresswire.com/ -- Global [gas sensors market](#) revenue was $\text{US\$ } 1,000.00 \text{ million}$ in 2022 and is projected to hit the market size of $\text{US\$ } 3,632.69 \text{ million}$ by 2031, growing at a CAGR of 11.0% during the forecast period from 2022 to 2031.

For more information, contact astute@astuteanalytica.com or visit <https://www.astuteanalytica.com/request-sample/gas-sensors-market>

Due to their extensive use in research laboratories and development projects across a number of industries, including chemistry, environmental science, and materials science, gas sensors have seen a significant increase in demand in recent years. In the near future, it's expected that increased environmental laws, a focus on industrial safety, and rising worries about home and commercial safety will all drive market expansion.

Particularly in developing economies like China, India, and Southeast Asian nations, the gas sensors market is experiencing a surge in areas where manufacturing operations have rapidly increased due to industrialization. As a result, the use of hazardous gases like hydrogen, carbon monoxide, methane, and volatile organic compounds (VOCs) is expanding. Gas sensors, which are essential for monitoring these gases, protecting personnel, and preventing mishaps, have therefore grown in importance.

Gas sensors are used to regulate and keep track of gas emissions from several residential and industrial activities. Furthermore, market expansion is encouraged by the growing need to reduce harmful emissions from key industries. For instance, the International Journal of Creative Research Thoughts (IJCRT) estimated that 7 million people died worldwide in 2022 due to breathing bad air.

Gas sensor manufacturers can produce sophisticated gas sensors due to technological



developments and advancements. In an effort to increase safety for pipeline operators around the world, numerous companies are also developing drone-based gas leak detection systems. For instance, a team of scholars from Princeton University developed a cutting-edge method in April 2023 to swiftly find both significant and minor leaks in sewage and gas drilling networks. The laser-based sensor device can accurately identify and measure significant greenhouse gas leakage while localizing the emissions source to within a meter.

Gas analyzers and monitors accounted for about 33.1% share of the global market in 2022.

In 2022, gas analyzers and monitors accounted for about 33.1% share of the global market. The use of gas analyzers and monitors is likely to increase as more companies recognize the critical role that these tools play in ensuring operational effectiveness and safety.

For instance, Thermo Fisher has unveiled the Thermo Scientific™ MAX-iRTM FTIR Gas Analyzer, a cutting-edge technology. This state-of-the-art analyzer offers real-time detection capabilities, delivering detection limits in industrial situations of a single-digit parts-per-billion (ppb) to parts-per-trillion (ppt). Their capabilities have also been further improved by technology developments and IoT integration, making them a crucial component of today's dynamic industrial operations.

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With a dominant 36.7% market share in 2022, electrochemical technology dominated the gas sensors market. Electrochemical sensors are more in demand because they use less power, operate more safely overall, and have better specificity for the target gas. Electrochemical technology measures the concentration of dangerous gases by oxidizing the target gas in the electrode and measuring the resulting current effectively. These elements are predicted to increase the mining industry's demand for electrochemical gas sensors.

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In 2022, the Asia Pacific region held the lion's share of the global gas sensors market with a sizeable 34.4% market share. Several elements contribute to this supremacy.

India is the world's biggest supplier of generic medications. In addition, 50% of the world's pharmaceutical demand is met by the Indian pharmaceutical industry. The requirement for constant monitoring of the various gases and solvents used in the manufacturing process at these pharmaceutical production facilities increases the demand for gas sensors, which, in turn, drives the market.

The demand for manufacturing gas sensing applications is rising owing to the expanding use of gas sensors in automobiles for the comfort and safety of passengers. India, according to the IBEF, has a robust market in terms of both domestic and export demand. Overall, 3.07 million passenger vehicles were sold in FY22, with 5,617,246 exported from India.

Report on the Gas Sensors Market by Region, Type, and Application@- <https://www.astuteanalytica.com/industry-report/gas-sensors-market>

In addition, the APAC area, where there are several industries, is a significant market where the need for these detectors is rising. Numerous vendors are entering the market as a result of the increasing demand and consistent profitability. For instance, in February 2021, Elematec Corporation stated that it would make its Molecular Property Spectrometer available to its customer base across Japan. Elematec Corporation is a trader in gas detection sensor technology.

Market Segmentation

Due to the presence of numerous competitors, the market for gas sensors is fragmented. Additionally, the businesses that offer different kinds of gas sensors have technologically unique products. As a result, they are using aggressive pricing tactics to increase their market share.

Key Players

- ABB Ltd.
- AlphaSense Inc.
- AlphaSense Inc.
- Dynament Ltd.
- Emerson Electric, Co. Ltd.
- Figaro Engineering
- GASTEC Corporation
- Honeywell Analytics
- MEMBRAPOR AG
- MSA Safety Inc.
- Nemoto & Co. Ltd
- Robert Bosch GmbH
- Sensirion
- Siemens
- DENSO Corporation
- Other Prominent Players

Market Outlook

The gas sensors market is expected to grow significantly over the next few years. The increasing demand for gas sensors in various industries, such as automotive, industrial, and consumer electronics, is driving the growth. Additionally, the rising awareness of gas detection and safety is also contributing to the market's expansion.

Report Summary

- Gas Analyzers & Monitors
- Gas Detectors
- Air Quality Monitors
- Consumer Devices
- Others

Gas Detection Technologies

- Electrochemical
- Semiconductors
- Catalytic
- Infrared
- Laser
- Flame Ionization Detection (FID)
- Carbon Nanotubes
- Others

Gas Detection Methods

- Wired
- Wireless

Gas Detection Signals

- Analog
- Digital

Gas Detection Locations

- Portable
- Handheld
- Fixed/Mounted

Gas Detection Gases

- Oxygen
- Carbon Monoxide (CO)
- Hydrogen
- Carbon Dioxide (CO₂)
- Hydrogen Cyanide (HCN)
- Nitrogen Oxide
- Hydrocarbons
- Other

Gas Detection Applications

- Residential
- Industrial
 - o Automotive
 - o Agriculture
 - o Aerospace
 - o Consumer electronics
 - o HVAC
 - o Medical and Life-Science
 - o Petrochemical

- o Semiconductor
- o Transportation
- o Construction (Infrastructure)

- Research

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- North America

- o The U.S.

- o Canada

- o Mexico

- Europe

- o The UK

- o Germany

- o France

- o Italy

- o Spain

- o Russia

- o Rest of Europe

- Asia Pacific

- o Japan

- o China

- o India

- o Australia & New Zealand

- o Korea

- o ASEAN

- o Rest of Asia Pacific

- Middle East & Africa (MEA)

- o UAE

- o Saudi Arabia

- o South Africa

- o Rest of MEA

- South America

- o Argentina

- o Brazil

- o Rest of South America

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