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Gas Sensors Market by Type (Oxygen, Carbon Monoxide, Carbon Dioxide, Nitrogen Oxide, Volatile Organic Compounds, Hydrocarbons), Output Type (Analog, Digital), Technology, Product, Connectivity, Application & Region - Global Forecast to 2028

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Abstracts

The Gas sensor market is projected to grow from USD 1.5 billion in 2023 and is expected to reach USD 2.3 billion by 2028, growing at a CAGR of 9.7% from 2023 to 2028. The rising adoption of portable air quality monitors across the world has led to an increase in demand for gas sensors used in these monitors. Increased concerns among end-users regarding the impact of air pollution on their health and the availability of portable air quality monitors at low costs are the major factors leading to the growing adoption of portable air quality monitors equipped with gas sensors.

“Air quality monitoring systems in the gas sensor market to witness highest growth rate during the forecast period.”

Air quality monitors are devices that measure the level of common air pollutants. They are generally used to monitor harmful gases, such as carbon monoxide and carbon dioxide. These monitors are available in both indoor and outdoor forms. Indoor air quality (IAQ) monitors are typically sensor-based instruments. A few of them can measure ppb (parts per billion) levels and come as either mixed gas or portable units. IAQ is the purity of the air in a specified area. It is determined by the level of dust, particulate matter (PM), and pollutants that are present. Air quality monitors are commonly used for air quality monitoring in in-home applications, industrial safety, environmental monitoring.

“Market for Smart cities and building automation segment in the gas sensor market to

witness the fastest growth during the forecast period."

In smart cities, gas sensors are used for various environmental monitoring applications for monitoring air quality, which includes weather stations and monitoring of the environment at public places. Major gases that are monitored include CO, CO2, SO2, NO, NO2, and VOCs. Inaddition to that, gas sensors are indispensable for preventing hazardous gas leaks in urban environments. They are deployed in pipelines, storage facilities, and industrial settings to detect leaks of natural gas, propane, and ammonia, triggering alarms and enabling prompt response to prevent potential disasters and protect public safety.

"The US is expected to hold the largest market size in the North American region during the forecast period."

The US accounted for the largest share of the North American gas sensor market in 2022, and a similar trend is expected to be witnessed during the forecast period. The development of hydraulic fracturing technology has boosted the growth of the market for shale gas in the US and has made the country one of the top exporters of petroleum products globally. Hence, increasing demand for gas sensors in the oil & gas industry will drive market growth. The declining quality of food and beverages has prompted the FDA to tighten the norms related to hygiene and safety, thereby making them more stringent, which drives the requirement to replace and modify required gas sensors that find applications in the food & beverage industry. These factors are contributing to the growth of the gas sensor market in the US. Also, the need for safety and detection of ammonia in the water & wastewater treatment vertical will boost the demand for gas sensors.

By Company Type: Tier 1 – 52%, Tier 2 – 31%, and Tier 3 – 17%

By Designation: C-level Executives – 47%, Directors –31%, and Others – 22%

By Region: North America –36%, Europe – 29%, Asia Pacific– 30%, and RoW – 5%

The report profiles key players in the gas sensor market with their respective market ranking analysis. Prominent players profiled in this report include Honeywell International Inc. (US), MSA Safety Incorporated (US), Amphenol Corporation (US), Figaro Engineering Inc. (Japan), Alphasense (UK), Sensirion AG (Switzerland), Process

Sensing Technologies (UK), ams-OSRAM AG (Austria), MEMBRAPOR (Switzerland), Senseair AB (US). Apart from these, Niterra Co., Ltd. (Japan), Nissha Co., Ltd. (Japan), Renesas Electronic Corporation (Japan), Breeze Technologies (Germany), eLichens (France), Bosch Sensortec GmbH (Germany), Danfoss (Denmark), Edinburgh Sensors (Uk), GASTEC Corporation (Japan), Nemoto & Co., Ltd. (Japan), SPEC Sensors (US), SIA MIPEX (Russia), Cubic Sensor and Instrument Co., Ltd. (China), and Zhengzhou Winsen Electronics Technology Co., Ltd. (China) are among a few other key companies in the gas sensor market.

Report Coverage

The report defines, describes, and forecasts the gas sensor market based on Product type, Technology, Connectivity, Output type, Type, Application, and Region. It provides detailed information regarding drivers, restraints, opportunities, and challenges influencing the growth of the gas sensor market. It also analyzes competitive developments such as product launches, acquisitions, expansions, contracts, partnerships, and actions carried out by the key players to grow in the market.

Reasons to Buy This Report

The report will help the market leaders/new entrants in the market with information on the closest approximations of the revenue for the overall gas sensor market and the subsegments. The report will help stakeholders understand the competitive landscape and gain more insight to position their business better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, opportunities, and challenges.

The report will provide insights into the following pointers:

Analysis of key drivers (Rising demand for gas sensors in critical industries), restraints (Intense pricing pressure resulting in a decline in average selling prices), opportunities (Rising deployment of IoT, cloud computing, and big data in gas sensors), and challenges (Technical issues such as high energy consumption) of the gas sensor market.

Product development /Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the gas sensor market.

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Market Development: Comprehensive information about lucrative markets; the report analyses the gas sensor market across various regions.

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the gas sensor market.

Competitive Assessment: In-depth assessment of market share, growth strategies, and services, offering of leading players like Honeywell International Inc. (US), MSA Safety Incorporated (US), Amphenol Corporation (US), Figaro Engineering Inc. (Japan), Alphasense (UK) among others in the gas sensor market.

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*Details on Business Overview, Products Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

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