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Global Exhaust Sensors for Automotive Market Research Report – Forecast to 2030

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Description:

Exhaust Sensors for Automotive Market Overview

According to the recent research report, the Exhaust Sensors for Automotive Market size is expected to grow at a CAGR of 3.5% through 2030. A sensor is a device that discovers or analyzes physical properties and then signals or responds to them. Fluid level, temperature, pressure, and exhaust gas sensors are examples of automobile sensors. Sensors are essential for safety, comfort, and pollution control. The surge in demand for electronics for emission control, safety, and luxury can be linked to the growth of the worldwide exhaust sensors for the vehicle market. Exhaust gas sensors are the most appealing section of the entire vehicle sensors industry. Rising demand for passenger vehicles as a result of rising disposable income has increased the automotive market, which has aided the expansion of the exhaust sensors market. Stringent emission standards throughout the world, on the other hand, have encouraged the automobile industry to investigate methods to minimize particulate matter, particularly in diesel cars.

The increasing need for the usage of electronics for safety, emission control, and luxury is identified as a significant element that might drive the development of worldwide exhaust sensors for the automobile market. There are several variables that might contribute to the market's development in the next years. They are an increase in disposable income and an increase in the demand for passenger automobiles. Furthermore, strict emission standards throughout the world are expected to have an influence on the growth of the automobile sector in the next years. The growing worry over particulate matter, particularly that emitted by diesel cars, may drive the expansion of exhaust sensors for the automotive industry throughout the research period.

This report contains all the information on the global Exhaust Sensors for Automotive Market outlook and its strengths. The report also contains the culmination of dynamics, segmentation, key players, regional analysis, and other important factors. And a detailed analysis of the global Exhaust Sensors for Automotive Market forecast to 2027 is also included in the report.

Covid 19 Analysis

The COVID-19 standard has had a significant influence on the worldwide automotive Exhaust Sensors for Automotive Market. This is evidenced by difficulties in the export of Chinese parts, large-scale manufacturing disruptions across Europe, and the shutdown of assembly factories in the United States. The magnitude of the damage is determined by the impact of COVID-19 and the choice of governments about the lockdown. The automotive sector has had a difficult year, and COVID-19 may have an influence on different M&A, collaborations, partnerships, and R&D operations. Vehicle manufacturing is likely to suffer greatly as a result of supply shortages and production halts. Due of the current lockdowns, demand for new cars in pandemic-affected nations is doubtful. The Exhaust Sensors for Automotive Market value is anticipated to decline significantly in 2020 as a result of the aforementioned causes.

Market Dynamic

- **Drivers**

Smart NOx sensors with sensor control units that operate autonomously are a key driving force in the Exhaust Sensors for Automotive Market growth, as is the exponential economic expansion of many developed and developing nations, as well as rising automotive production. The use of microfabrication technology has resulted in satisfying exhaust gas sensors that are more perfect and dependable, as well as improved reaction time, communication capability ruggedness, and efficiency.

- **Opportunities**

With the rise of self-driving cars, the usage of automotive sensors is rising. Automobile automation is regarded as the ultimate aim of mobility. Automakers and Tier 1 suppliers, as well as technology providers (such as semiconductor vendors) and smart mobility firms (such as ridesharing companies) that are not typically involved with the automobile sector, are all racing to develop and invest in relevant technologies. Semiconductor manufacturers are hard at work building a wide range of microchips, fusion devices, and system-on-chip devices that incorporate artificial intelligence (AI) and machine learning technology.

- **Restraints**

Stringent emission standards throughout the world, on the other hand, have encouraged the automobile industry to look for other ways to minimize particulate matter, particularly in diesel cars.

- **Challenges**

Autonomous vehicles have gained popularity in recent years. There have been a number of tragic events using autonomous cars with levels of autonomy ranging from Level 3 to Level 5, in which the vehicle had little human involvement. In March 2018, a self-driving/autonomous vehicle collided with a human in Arizona, United States. This was the first pedestrian death witnessed during a test run by Uber, a business that provides ridesharing services. OEMs are anticipated to use sophisticated sensors such as radar, LiDAR, and image sensors in self-driving vehicles as they evolve. However, OEMs and integrators must work on improving the accuracy and reliability of these sensors.

Cumulative Growth Analysis

After a turbulent period from 2004 to 2013, the worldwide medium commercial vehicle (MCV) and heavy commercial vehicle (HCV) markets are expected to stabilize between 2014 and 2024, according to MRFR study. Country-by-country growth for these commercial vehicles suggests a 1%–2% increase for China and Brazil, a stunning 7%–8% growth for India, and approximately 6% growth for Europe. The rising demand for commercial vehicles is expected to drive growth in the market for diesel vehicles, which will drive growth in the worldwide market for Exhaust Sensors for Automotive Market.

Value Chain Analysis

The worldwide Exhaust Sensors for Automotive Market is divided into four categories: type, fuel type, vehicle type, and regions. The market is classified into oxygen sensors, NOx sensors, particulate matter sensors, differential pressure centers, engine coolant temperature sensors, exhaust temperature and pressure centers, and others. The market is divided into three categories based on fuel type: gasoline, diesel, and others. The market is divided into two categories based on vehicle type: passenger automobiles and commercial vehicles. The increase in diesel car sales and the high rate of exhaust sensor inclusion in them are anticipated to drive market growth throughout the research period.

Segmentation Overview

The market is segmented on the basis of type, fuel type, vehicle type, and regions. The global Exhaust Sensors for Automotive Market trends are expected to witness decent growth during the forecast period.

By Application

Based on the application, the market is segmented into oxygen sensors, NOx sensors, particulate matter sensors, differential pressure centers, engine coolant temperature sensors, exhaust temperature and pressure centers, and others.

By end-users

Based on the propulsion types, the market is segmented into passenger automobiles and commercial vehicles.

Regional Analysis

According to the reports, on the basis of region, the Exhaust Sensors for Automotive Market is divided into North America, Asia-Oceania, Europe, and the rest of the world. China, India, Japan, and South Korea are all part of the Asia-Oceania area. Recent infrastructural and industrialization improvements in these nations have opened up new channels, possibilities, and customers for OEMs. Passenger vehicle demand is increasing in many regions, driven by rising per capita income and a desire for luxury. Infrastructure expansions and industrial investments have also accelerated the rise of commercial vehicles and, as a result, emission sensors in the region. In comparison to other areas, Asia-Oceania has moderate emission standards; however, with nations such as China suffering high levels of pollution, the standards are expected to grow increasingly strict in the future years. This would drive the expansion of the Exhaust Sensors for Automotive Market share.

Western Europe is an established automobile market. Furthermore, as a result of the 2008 Euro Crisis, the European automobile industry had a negative CAGR. However, the sector began to recover quickly after 2013. As a result of environmental worries over growing emission levels in the region, the European Union has enacted tough emission-control regulations. These rules pushed automakers to create technologically sophisticated car exhaust sensors. The North American area includes the United States, Canada, and Mexico, which has a technologically advanced and mature automobile market as well. Nonetheless, a number of OEMs are establishing manufacturing plants in Mexico, thanks to cheap labor and low production costs. As a result, the country's car manufacturing output has grown, as has the need for exhaust sensors.

Competitive landscape

Various businesses are focusing on organic growth strategies such as product launches, product approvals, and other things like patents and events. Acquisitions, partnerships, and collaborations were among the inorganic growth methods observed in the industry. These efforts have opened the path for market participants to expand their business and consumer base. With the growing demand for the Automotive Exhaust Sensor industry, key participants in the Exhaust Sensors for the Automotive industry are expected to benefit from attractive growth possibilities in the future.

Major Key Players

- Robert Bosch GmbH
- Continental AG
- Delphi Co.
- Denso Corporation
- Sensata Technologies Holding NV
- Hella KGAA Hueck & Co.
- Hitachi Ltd
- Infineon Technologies AG
- NGK Spark Plug Co., Ltd
- Stoneridge, Inc

Report Outlook

The following report comprises of –

- Market overview
- Covid 19 Analysis
- Market Dynamic
- Drivers
- Opportunities
- Restraints
- Challenges
- Cumulative Growth Analysis
- Segmentation Overview
- By Application
- By End-Users

- Regional Analysis
- Competitive landscape

Recent Developments

- Infineon bought Cypress Semiconductor, a semiconductor industry leader, in April 2020. Infineon's automotive semiconductor offerings are likely to improve as a result of this purchase.

Market Segmentation

Global Automotive Exhaust Sensor Market, by Sensor Type:

- NOx sensors
- O2 sensors
- MAP-MAF sensors
- Differential pressure sensors
- Temperature sensors
- Particulate matter sensors

Global Automotive Exhaust Sensor Market, by Vehicle Type:

- Passenger Cars
- Light-weight Commercial Vehicle (LCVs)
- Heavy-weight Commercial Vehicle (HCV)

Global Automotive Exhaust Sensor Market, by Region:

- North-America
- Europe
- Latin America
- Middle East
- the Asia Pacific

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