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Environmental Sensor Market Research Report - Global Forecast till 2027

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Description:

Global Environmental Sensor Market Overview:

Environmental Sensor Market Size was valued at USD 0.9 billion in 2022. The Environmental Sensor market industry is projected to grow from USD 0.91 Billion in 2023 to USD 2.1 billion by 2032, exhibiting a compound annual growth rate (CAGR) of 10.2% during the forecast period (2023 - 2032). With expenditures in environmental sensor creation, research, and testing, the environmental sensors sector is anticipated to earn modest income in the next years, which will be the key market drivers enhancing the market growth.

Global Environmental Sensor Market Overview

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Environmental Sensor Market Trends

- Use of the internet of things & nanotechnology is driving the market growth

Market CAGR for applications of IoT for environmental monitoring includes protection, monitoring for extreme weather, water safety, protecting endangered species, and industrial farming. Sensors are used in these applications to identify and quantify any form of environmental change. Additionally, nanotechnology works with material sizes between 1 and 100 nm. It significantly contributes to the detection of contaminants by increasing sensor specificity.

Environmental sensors are increasingly used in the industrial and manufacturing sectors. Strict government rules on pollution management and rising environmental sensor demand in agriculture are the key drivers influencing the worldwide market for environmental sensors. Additionally, a lack of knowledge and a short life duration impact the market. Additionally, expanding smart home efforts and continuous technical developments in IoT and cloud-based services are somewhat impacted by the market growth. Each of these variables is expected to significantly affect the worldwide market for environmental sensors during the forecast period. Global population expansion has accelerated industrial activity and development at the same time. Worldwide soil, air, and water quality have rapidly deteriorated due to unsustainable business practices. This has raised the demand for tools that can identify environmental changes.

The increasing number of government attempts to reduce environmental pollution encourages the market for environmental sensors. For instance, it is projected that demand for environmental sensors will rise as governments worldwide emphasize monitoring ecological contamination and lowering the fatalities caused by gaseous pollution.

Environmental sensors should also profit from several creative and bright municipal projects due to Industry 4.0 breakthroughs. Machine-to-machine (M2M) interaction between technologies (such as factory floor sensors) is planned to improve production procedures and safety. To meet various demands, businesses are concentrating on offering industrial sensors specifically geared toward the chemical sector. For instance, the RF Series moisture sensor from Sensortech Systems supports moisture measurement for chemical powder goods. The business also offers non-contact continuous online moisture measurements with its IR Series moisture analyzers. This sensor series contributes to increased automation in the chemical industry. Thus, driving the Environmental Sensor market revenue.

Environmental Sensor Market Segment Insights:

Environmental Sensor Product Insights

The Environmental Sensor Market segmentation, based on product includes temperature, pressure, water quality, chemical, smoke, and humidity. The temperature segment dominated the market, accounting for 29% of market revenue (0.5 billion). As a result of the growing need for dependable, high-performing, and affordable sensors, new technologies like microtechnology and nanotechnology have been created. The sensors are widely used in many sectors, including automotive, residential, medical, environmental, food

processing, and chemical. They are also inexpensive, compact, and simple to use.

Figure 1: Environmental Sensor Market Product, 2022 & 2032 (USD billion)

Environmental Sensor Market Product, 2022 & 2032

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Environmental Sensor End User Insights

The Environmental Sensor Market segmentation, based on end user, includes industrial, commercial, residential, automotive, consumer electronics, healthcare & life sciences, and government. The industrial segment will occupy the largest market share during the forecast period. This market is predicted to develop due to increasing emphasis on predictive maintenance and remote monitoring, rising demand for industrial automation and IoT, strict government laws governing pollution monitoring technology, and fast industrialization.

Environmental Sensor Regional Insights

By Region, the study provides market insights into North America, Europe, Asia-Pacific, and the Rest of the World. The Asia Pacific market area will dominate this market. Smart technologies, including smart cities, autonomous cars, Internet of Things (IoT) applications, home automation, industrial automation, cognitive processing technologies, and others, are rapidly proliferating across the region. These elements are anticipated to fuel market expansion.

Further, the major countries studied in the market report are The U.S., Canada, German, France, the UK, Italy, Spain, China, Japan, India, Australia, South Korea, and Brazil.

Figure 2: Environmental Sensor Market SHARE BY REGION 2022 (%)

Environmental Sensor Market SHARE BY REGION 2022

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Europe Environmental Sensor market accounts for the second-largest market share due to the widespread deployment of Internet of Things (IoT) technology in businesses and manufacturing facilities has significantly accelerated the uptake of these sensors, spurring the market expansion. Further, the German Environmental Sensor market held the largest market share, and the UK Environmental Sensor market was the fastest growing market in the European region

The North American Environmental Sensor Market is expected to grow at the fastest CAGR from 2023 to 2032. Major factors influencing the regional market's growth include growing government initiatives to reduce environmental pollution levels, rising government funding for pollution control and monitoring, ongoing installation of environmental monitoring stations, and expanding initiatives to develop environmentally friendly industries. Moreover, China's Environmental Sensor market held the largest market share, and the Indian Environmental Sensor market was the fastest growing market in the Asia-Pacific region.

The region's development is being supported by governments' growing adoption of environmental monitoring and protection programs and the growing adherence of industrial facilities to environmental monitoring standards.

Environmental Sensor Key Market Players & Competitive Insights

The market for animal vaccinations will expand even more as leading market players invest much money in R&D to broaden their product lines. Market developments such as introducing new products, acquisitions, contractual agreements, increased investments, and cooperation with other companies are significant market advancements. Market players take these acts. Competitors in the Environmental Sensor industry market are always worried about the development of vaccinations.

One of the main business tactics manufacturers use in the worldwide global Environmental Sensor industry to assist customers and grow the market sector is to produce locally to cut operating costs. Major players in the Environmental Sensor market, include Bosch Sensortec GmbH, Sensirion AG, OMRON Corporation, Honeywell International Inc., Raritan Inc., ABB Ltd., Siemens AG, and Texas Instruments Incorporated, among others.

Kyoto, Japan, is home to the Omron Corporation, a Japanese electronics business. Kazuma Tateishi founded Omron in 1933 (as the Tateishi Electric Manufacturing Company), and the company was officially incorporated in 1948. The name "Omron" was drawn from the neighborhood of Kyoto, where the business was founded. The production and marketing of automation systems, equipment, and components is Omron's main line of business. It is well-known for medical devices in the consumer and medical industries, including nebulizers, digital thermometers, and blood pressure monitors. One of the original makers of automated teller machines (ATM) using magnetic stripe card readers, Omron created the first electronic ticket gate in the history of the world, which was recognized as an IEEE Milestone in 2007. The oil, gas, and other associated industries may get specialized control systems, AC and DC drive systems, and more from Omron Oilfield & Marine.

The corporate headquarters of the American multinational company Honeywell International Inc. is in Charlotte, North Carolina. Aerospace, building technologies, performance materials and technology (PMT), and safety and productivity solutions comprise its four main business sectors. (SPS). A Fortune 100 firm, Honeywell was rated 94th in 2021. The company employed around 97,000 people worldwide in 2022, down from 113,000 in 2019. At the moment, Darius Adamczyk serves as both the chairman and CEO. After Honeywell Inc. and AlliedSignal merged in 1999, the company's present name, Honeywell International Inc.,

was born. The corporate offices were amalgamated with AlliedSignal's headquarters in Morristown, New Jersey; nevertheless, the new organization adopted the moniker "Honeywell" due to the well-known brand.

Key Companies in the Environmental Sensor market include

- Bosch Sensortec GmbH
- Sensirion AG
- OMRON Corporation
- Honeywell International Inc.
- Raritan Inc.
- ABB Ltd.
- Siemens AG
- Texas Instruments Incorporated
- Schneider Electric
- STMicroelectronics
- IDT
- Freescale Semiconductor Inc.
- Apogee Instruments
- TE Connectivity
- NuWave Sensors
- Elichens
- Aclima
- Breeze Technologies

Environmental Sensor Industry Developments

September 2022: The STS4xA is a highly dependable digital temperature sensor series that Sensirion has created for automotive applications. The sensor platform's sophisticated onboard diagnosis system facilitates automated optical inspection.

April 2022: A green laser diode from AMS, a leading provider of optical solutions, has been presented as a brighter, simpler-to-use, more reliable, and more affordable alternative to red lasers for use in leveling, scanning, biosciences, and dot projection.

June 2021: The Cabinet Committee on Economic Affairs approved a request from the Indian government's Ministry of Earth Sciences to undertake a Deep Ocean Mission to explore the ocean for resources and develop deep-sea technology for sustainable use of ocean resources. The project is expected to cost around INR 4,077 crore (or around USD 492.5 million) over five years.

Environmental Sensor Market Segmentation:

Environmental Sensor Product Outlook

- Temperature
- Pressure
- Water Quality
- Chemical
- Smoke
- Humidity

Environmental Sensor End User Outlook

- Industrial
- Commercial
- Residential
- Automotive
- Consumer Electronics
- Healthcare & Life Sciences
- Government

Environmental Sensor Regional Outlook

- North America
 - US
 - Canada

- Europe
 - Germany
 - France
 - UK
 - Italy
 - Spain
 - Rest of Europe
- Asia-Pacific
 - China
 - Japan
 - India
 - Australia
 - South Korea
 - Australia
 - Rest of Asia-Pacific
- Rest of the World
 - Middle East
 - Africa
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