

## **Global Medical Sensor - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029**

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### **Report description:**

The Global Medical Sensor Market size is estimated at USD 7.76 billion in 2024, and is expected to reach USD 12.63 billion by 2029, growing at a CAGR of 10.24% during the forecast period (2024-2029).

The development of new devices that provide faster analysis, lower costs, and are user-friendly contribute to the growth of the medical sensor market.

#### **Key Highlights**

- Medical sensors are devices that respond to various physical stimuli, such as sound, pressure, heat, light, and any particular motion, and communicate the resulting impulse for examination at the point of care. Physical stimuli are converted into electrical impulses by these devices. Medical sensors offer significant benefits in disease diagnosis, treatment, and management.
- Advances in low-power electronics, MEMS technology, power harvesting, and smart materials have increased the applications of these technologies in the healthcare and medical industries. From simple medical devices to intelligent distributed healthcare systems, accurate detection, and early warning of the healthcare conditions of patients, sensors have played a major role in this industry. Furthermore, the development of unobtrusive sensing solutions has paved the path for enhanced patient health.
- Miniaturization of sensors leading to ease in integration acts as a driver to the medical sensor market. This can help in diagnosing diseases that require very detailed sensing techniques.
- Manufacturers of medical devices are putting a lot of effort into developing portable devices with sensors. Attributed to their rising usage in these devices, the demand for low-cost advanced sensors with a tiny form factor, better functionality, low power consumption, and high reliability is increasing.
- In many underdeveloped and some developing countries, the health status is still poor. This problem causes the people of these countries not to have proper access to optimal health services. Most health care systems, whether private or public, or

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government, are clustered in urban areas, and there is a scarcity of health services in rural belts.

-As healthcare spending for COVID-19 increases exponentially, companies that conduct research, produce test kits, implement medical sensors, develop potential vaccines, and manufacture or supply medical equipment are likely to benefit the most. Therefore, governments across the world may invest in damage control and the prevention of any potential resurgence of the pandemic. It also means that companies other than that manufacturing PPE (Personal Protective Equipment) or infrastructure support that to COVID-19 may face disruptions in business. Innovative thinking and preemptive measures may become the norm in healthcare.

## Medical Sensor Market Trends

### Pressure Sensors Play a Significant Role in the Medical Sensor Market

- Pressure sensors are crucial components for medical devices to sustain and enhance the quality of a more effective and safe operation. Furthermore, they are the reason there has been a notable increase in portable healthcare monitoring products since they have become an integral part of designing medical applications.
- Pressure sensors can monitor a patient's condition by providing definite and reliable diagnostics in a broad range of conditions. This can include monitoring oxygen therapy effectiveness in oxygen concentrators, automating drug infusion by administering the correct volume and rate of fluid in infusion pumps, or even measuring blood pressure.
- Moreover, many people suffer from asthma attacks and use inhalers as a solution. Poor inhaler techniques prevent patients from receiving their full therapeutic benefits. In order to counter this situation, leading medical equipment manufacturers are employing pressure sensors in inhalers, and individuals are starting to receive proper asthma care measures.
- Wearable pressure sensors are commonly used in medicine to track vital signs and robotics to help mechanical fingers handle delicate objects. Conventional soft capacitive pressure sensors only work at pressures below 3 kPa, however, meaning that something as simple as tight-fitting clothing can hinder their performance.
- In August 2021, an Indian researcher developed low-cost, flexible, and wearable sensors that can be used for the diagnosis of pulse rate variability in humans. Being a high sensitivity flexible pressure and strain sensor, it can also be used for small- and large-scale motion monitoring, with potential applications in robotics prosthetics, as well as minimally invasive surgery and identification of tumor/cancerous cells.

### North America to Record a Significant Growth Rate Over the Forecast Period

- The medical device market size in North America is one of the largest among other regions and is expected to grow at a considerable growth rate during the forecast period. The factors such as a well-developed healthcare infrastructure, presence of adequate and favorable reimbursement policies, rapid adoption of advanced medical technologies, and key players within the region are responsible for the industry growth.
- Additionally, the growing number of patients undergoing diagnosis and treatment in the regions due to a rising incidence and prevalence of chronic conditions is further promoting the acceptance of advanced medical devices and associated sensors in the past few years.
- The medical device industry relies on several industries where the United States holds a competitive advantage, including microelectronics, telecommunications, instrumentation, biotechnology, and software development. Collaborations have led to recent advances, including neuro-stimulators, stent technologies, biomarkers, robotic assistance, and implantable electronic devices.
- Many federal policies, programs, and actions are being initiated by the governments of the North American region to experience

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progress in healthcare services. For example, within the United States, the federal government has been encouraging the use of healthcare data through various policies and initiatives. Affordable Care Act (ACA), the most important healthcare legislation in the United States, authorized the Department of Health and Human Services to release data that promotes transparency in healthcare and medical insurance markets.

- In September 2021, Gator Bio Inc. launched GatorPlus, next-generation biolayer interferometry (BLI) instrument, and two new biosensor products, Gator Flex SA Kit and Gator AAVX probe. The GatorPlus adds to the currently available GatorPrime instrument. The Gator Flex SA Kit and Gator AAVX probe expand the off-the-shelf biosensor portfolio to 14 products for the North American market. In the last few years, Health Canada has undertaken an initiative to adapt its regulatory approach to better support digital health technologies, specifically medical devices.

## Medical Sensor Industry Overview

The major players in the market are GE Healthcare Inc., STMicroelectronics, Honeywell Inc., Omron Corporation, Siemens Corporation, and others. The market is dominated by these players; hence the market is consolidated. Thus, the market concentration will be low.

- October 2021 - OMRON updated Automation Center in Barcelona. The new facility cements OMRON's position as a prominent provider in factory automation technology that addresses various challenges. OMRON transforms automation concepts into innovative solutions with the support of the Automation Center. The exhibits aim to showcase OMRON's i-Automation and the concept of integrated, interactive, and intelligent solutions, including its extensive portfolio of control, motion, vision, safety, robotics technologies, and worldwide engineering and services capabilities.

- September 2021 - Sensirion Holding AG, a prominent provider of environmental and flow sensor solutions, has completed the purchase of AiSight GmbH, a pioneer in scalable, easy-to-use machine diagnostics. AiSight, situated in Berlin, develops and sells plug-and-play solutions for the rapidly increasing industrial condition monitoring and predictive maintenance sector. AiSight's technology uses vibration and temperature sensors and artificial intelligence data processing to help industrial organizations reduce unplanned downtime and improve the quality of their production processes.

## Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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