

Biological Sensors Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2019-2029 Segmented by Type (Heart Rate Monitoring Sensors, Brain Wave Sensors, Sweat Gland Activity Sensors, Breathing Rate Monitoring Sensors, Others), By Product Type (Embedded Device, Sensor Patch), Application (Diagnostic, Monitoring, Therapeutic), By Region, and By Competition

<https://marketpublishers.com/r/BDD5E6B23FD2EN.html>

Date: February 2024

Pages: 174

Price: US\$ 4,900.00 (Single User License)

ID: BDD5E6B23FD2EN

Abstracts

Global Biological Sensors Market was valued at USD 28.84 billion in 2023 and will see an impressive growth in the forecast period at a CAGR of 8.07% to 2029. Biological sensors, also known as biosensors, are analytical devices designed to detect, monitor, and quantify biological molecules, analytes, and biomarkers in various samples, including biological fluids, environmental samples, and clinical specimens. Biological sensors integrate biological recognition elements, such as antibodies, enzymes, nucleic acids, cells, or biomimetic materials, with transducer elements capable of converting biological signals into measurable electrical, optical, or mechanical signals. These sensors enable real-time monitoring of biological processes, disease states, and environmental conditions, offering insights into health, wellness, and disease management across diverse applications and industries. The biological recognition element selectively binds to the target analyte or biomolecule of interest, facilitating its detection and quantification. Biological recognition elements can include antibodies, aptamers, enzymes, receptors, DNA probes, and molecularly imprinted polymers tailored to specific analytes and applications. The transducer element converts the biological interaction between the recognition element and the target analyte into a measurable signal, such as electrical, optical, thermal, or mechanical signals.

Transducer technologies include electrochemical sensors, optical sensors, piezoelectric sensors, field-effect transistors (FETs), surface plasmon resonance (SPR) sensors, and microcantilever sensors, each offering unique advantages in terms of sensitivity, specificity, and signal-to-noise ratio.

There is a growing demand for rapid and decentralized diagnostic solutions that can be performed at the point of care, such as doctor's offices, clinics, and community health centers. Biological sensors enable the development of portable, user-friendly diagnostic devices for rapid detection of diseases, pathogens, and biomarkers, facilitating timely diagnosis and treatment. Ongoing advancements in sensor technology, materials science, and microfabrication techniques drive innovation in biological sensors. Improved sensitivity, specificity, and reliability of sensors enable the detection and quantification of biological analytes with high accuracy and precision, expanding their applications in healthcare, environmental monitoring, and biotechnology. The rapid proliferation of wearable devices, such as fitness trackers, smartwatches, and medical-grade wearables, fuels demand for biological sensors embedded within these devices. Wearable sensors enable continuous monitoring of physiological parameters, lifestyle behaviors, and environmental exposures, providing valuable insights into health status and facilitating behavior modification and disease prevention.

Key Market Drivers

Rising Demand for Point-of-Care Testing (POCT)

POCT facilitates rapid diagnosis and treatment decisions by providing timely test results at the point of care. Biological sensors integrated into POCT devices enable healthcare professionals to detect and quantify specific biomarkers, pathogens, and analytes in patient samples, allowing for immediate intervention and treatment initiation. POCT enables diagnostic testing to be performed in various healthcare settings, including doctor's offices, clinics, emergency departments, and remote or resource-limited environments. Biological sensors enable the development of portable, user-friendly POCT devices that can be easily deployed in diverse healthcare settings, expanding access to diagnostic testing, and improving patient outcomes. POCT enhances patient management by enabling real-time monitoring of disease progression, treatment response, and clinical outcomes. Biological sensors enable continuous monitoring of biomarkers and physiological parameters, allowing healthcare providers to adjust treatment regimens, optimize medication dosing, and monitor patient recovery more effectively.

POCT significantly reduces the turnaround time for diagnostic testing compared to traditional laboratory-based methods. Biological sensors offer rapid detection and quantification of target analytes, allowing for immediate test results and treatment decisions without the need for sample transportation or centralized laboratory processing. POCT plays a critical role in public health preparedness and emergency response by enabling rapid screening, diagnosis, and containment of infectious diseases and outbreaks. Biological sensors facilitate the development of rapid diagnostic tests for emerging pathogens, such as influenza viruses, Ebola virus, and SARS-CoV-2, enabling early detection and control of disease spread. In addition to diagnostic testing, POCT also encompasses point-of-care monitoring of patients with chronic diseases, such as diabetes, cardiovascular disease, and infectious diseases. Biological sensors enable continuous monitoring of biomarkers, medication levels, and disease progression, empowering patients to actively manage their health and engage in self-care activities. This factor will help in the development of the Global Biological Sensors Market.

Growing Emphasis on Preventive Healthcare

There is a growing trend towards the adoption of wearable health monitoring devices equipped with biological sensors. These devices, such as fitness trackers, smartwatches, and wearable patches, enable individuals to monitor vital signs, track physical activity levels, and assess sleep quality in real-time. Biological sensors embedded within wearable devices provide actionable insights into various health metrics, facilitating behavior modification and lifestyle changes to promote preventive healthcare. Biological sensors enable early detection of health risks and abnormalities by continuously monitoring physiological parameters and biomarkers associated with chronic diseases, such as hypertension, diabetes, and cardiovascular disease. Early identification of health risks allows individuals to take proactive measures, such as lifestyle modifications, dietary changes, and medication adherence, to mitigate the progression of diseases and improve health outcomes. Preventive healthcare strategies focus on managing chronic diseases and preventing complications through regular monitoring and early intervention. Biological sensors enable remote monitoring of patients with chronic conditions, such as diabetes, heart disease, and respiratory disorders, by providing real-time data on vital signs, medication adherence, and disease progression. Continuous monitoring using biological sensors facilitates personalized treatment plans and timely adjustments to optimize patient outcomes.

Biological sensors enable individuals to track health behaviors, such as physical activity, exercise intensity, dietary habits, and stress levels, to identify patterns and trends over

time. By monitoring lifestyle factors and environmental exposures, individuals can make informed decisions to improve their health and reduce the risk of chronic diseases. Biological sensors provide feedback and motivation to encourage positive health behaviors and adherence to preventive healthcare recommendations. The adoption of remote patient monitoring (RPM) and telehealth technologies enables healthcare providers to remotely monitor patients' health status and intervene proactively when necessary. Biological sensors integrated into RPM and telehealth platforms enable continuous monitoring of vital signs, symptom tracking, and remote consultations, facilitating early detection of health issues and preventing hospital readmissions. Preventive healthcare emphasizes personalized health management based on individual risk factors, genetic predispositions, and lifestyle choices. Biological sensors enable personalized health monitoring by capturing individualized data on physiological parameters, biomarkers, and health trends. By leveraging data analytics and machine learning algorithms, biological sensors can generate personalized health insights and recommendations tailored to everyone's unique health profile. This factor will pace up the demand of the Global Biological Sensors Market

Technological Advancements

Nanotechnology has revolutionized the field of biological sensors by enabling the fabrication of nanoscale structures and materials with unique properties. Nanomaterials, such as carbon nanotubes, graphene, and quantum dots, exhibit exceptional electrical, optical, and mechanical properties that enhance sensor performance. Nanotechnology-based sensors offer increased sensitivity, rapid response times, and the ability to detect biomolecules at ultralow concentrations. Microfluidic technologies enable precise control and manipulation of fluids at the microscale, allowing for the development of miniaturized and integrated biological sensors. Microfluidic platforms facilitate sample preparation, analyte separation, and detection in compact and portable devices suitable for point-of-care testing and field applications. Microfluidic-based sensors offer advantages such as reduced sample volume, enhanced sensitivity, and multiplexed analysis capabilities. Lab-on-a-chip devices integrate multiple analytical functions, including sample processing, chemical reactions, and detection, onto a single microfluidic platform. LOC devices enable rapid and automated analysis of biological samples with minimal sample consumption and processing time. These devices are well-suited for applications such as clinical diagnostics, environmental monitoring, and drug discovery, where high-throughput screening and miniaturization are critical. Biosensor arrays incorporate multiple sensor elements or receptors targeting different analytes or biomolecules onto a single platform. Biosensor arrays enable simultaneous detection and profiling of multiple targets in complex samples, providing comprehensive

information on biological processes, disease biomarkers, and environmental contaminants. Array-based sensors enhance throughput, sensitivity, and specificity, making them valuable tools for medical diagnostics, drug screening, and biomarker discovery.

Advances in wireless communication technologies enable seamless integration of biological sensors with data acquisition systems, smartphones, and cloud-based platforms. Wireless sensors facilitate remote monitoring, real-time data transmission, and continuous patient surveillance, enhancing healthcare delivery and patient management. Wireless connectivity enables the development of wearable sensors, implantable devices, and smart health monitoring systems for personalized healthcare and telemedicine applications. Bioinformatics and data analytics play a crucial role in processing, analyzing, and interpreting data generated by biological sensors. Machine learning algorithms, pattern recognition techniques, and statistical models enable extraction of meaningful insights from large datasets, identifying trends, correlations, and predictive biomarkers. Integration of bioinformatics tools with biological sensors enhances decision-making, diagnostic accuracy, and personalized treatment strategies in healthcare and life sciences. Flexible and stretchable electronics enable the development of conformable and wearable biological sensors that can adapt to complex surfaces and body contours. Flexible sensors offer enhanced comfort, wearability, and motion tolerance, making them ideal for continuous health monitoring, sports performance tracking, and medical implants. Flexible electronics technology enables the design of next-generation wearable devices with seamless integration into everyday life. This factor will accelerate the demand of the Global Biological Sensors Market

Key Market Challenges

Complexity of Biological Systems

Biological systems exhibit inherent variability at various levels, including genetic, molecular, cellular, and physiological variability among individuals and populations. This variability can affect the sensitivity, specificity, and reliability of biological sensors, leading to challenges in standardization, calibration, and interpretation of sensor data. Biological processes are dynamic and constantly changing in response to internal and external stimuli, environmental cues, and physiological states. The dynamic nature of biological systems introduces temporal and spatial variations that can influence sensor performance and measurement accuracy over time. Biological samples often contain complex matrices, background signals, and interfering substances that can interfere with sensor measurements and signal detection. Non-specific binding, cross-reactivity,

and matrix effects pose challenges for achieving high specificity and selectivity in biological sensor assays, particularly in complex sample matrices such as blood, urine, and tissue homogenates. Biological systems involve intricate networks of biochemical pathways, molecular interactions, and cellular signaling cascades that regulate physiological processes and disease states. Understanding the multifactorial interactions within biological systems is essential for designing sensors capable of detecting multiple analytes, biomarkers, and molecular targets with high sensitivity and accuracy.

Sensitivity and Selectivity

Biological samples, such as blood, urine, saliva, and tissue extracts, contain a complex mixture of biomolecules, proteins, cells, and other compounds. The presence of interfering substances, background noise, and matrix effects can compromise the sensitivity and selectivity of biological sensors, leading to false-positive or false-negative results. Many biomarkers and analytes of interest in biological samples exist at low concentrations, making their detection challenging. Biological sensors must be highly sensitive to detect analytes at low levels while maintaining specificity to minimize interference from background signals and non-specific binding. Biological sensors may exhibit cross-reactivity with structurally similar molecules or non-specific binding to other components present in the sample matrix. Cross-reactivity and interference can lead to false-positive signals or inaccurate measurements, undermining the reliability and accuracy of sensor data. Achieving optimal assay conditions, including pH, temperature, buffer composition, and incubation times, is essential for maximizing sensitivity and selectivity in biological sensors. Variations in assay conditions can affect sensor performance and analytical sensitivity, requiring rigorous optimization and validation protocols.

Key Market Trends

Miniaturization

Miniaturized biological sensors enable the development of portable, handheld, and point-of-care testing (POCT) devices that can be used outside traditional laboratory settings. Portable sensors allow for rapid, on-site detection of biomarkers, pathogens, and analytes, facilitating timely diagnosis, treatment, and patient management in remote or resource-limited environments. Miniaturization enables the integration of biological sensors into wearable health monitoring devices, such as fitness trackers, smartwatches, and wearable patches. Wearable sensors provide continuous monitoring

of physiological parameters, activity levels, and health metrics, empowering individuals to track their health in real-time and make informed decisions about their lifestyle and wellness management. Miniaturized biological sensors can be designed for implantable and ingestible applications, allowing for continuous monitoring of physiological parameters, drug levels, and disease biomarkers inside the body. Implantable and ingestible sensors offer insights into patient health, medication adherence, and disease progression without the need for invasive procedures or frequent clinic visits. Miniaturization enables the development of microfluidic and lab-on-a-chip (LOC) platforms for sample preparation, analysis, and detection of biological targets. Microscale devices integrate multiple analytical functions onto a single chip, reducing sample volume, analysis time, and reagent consumption while improving sensitivity, throughput, and automation in biological assays.

Segmental Insights

Type Insights

The Heart Rate Monitoring Sensors segment is projected to experience rapid growth in the Global Biological Sensors Market during the forecast period. With growing awareness about the importance of health and fitness, there is a rising demand for wearable devices that can monitor vital signs such as heart rate. Heart rate monitoring sensors enable individuals to track their heart rate in real-time during various activities, including exercise, sports, and daily routines. Technological advancements have led to the development of advanced wearable devices equipped with heart rate monitoring sensors. These devices, such as fitness trackers, smartwatches, and wearable patches, offer convenient and non-invasive methods for continuous monitoring of heart rate, providing users with valuable insights into their cardiovascular health and fitness levels. Heart rate monitoring sensors are increasingly being integrated into healthcare and wellness platforms, allowing users to access personalized health insights, track progress over time, and receive actionable recommendations for improving cardiovascular health. Integration with mobile apps and cloud-based platforms enhances user engagement and facilitates data-driven decision-making.

Application Insights

The Diagnostic segment is projected to experience rapid growth in the Global Biological Sensors Market during the forecast period. There is a growing demand for rapid and accurate diagnostic tests that can be performed at the point of care, such as clinics, doctor's offices, and community health centers. Biological sensors play a crucial role in

enabling POCT by providing sensitive and specific detection of biomarkers, pathogens, and analytes in clinical samples, allowing for timely diagnosis and treatment. Molecular diagnostic techniques, such as nucleic acid amplification assays and immunoassays, rely on biological sensors to detect and quantify specific DNA, RNA, proteins, and other molecular targets associated with infectious diseases, genetic disorders, cancer, and other medical conditions. Advances in sensor technology and assay design have led to the development of highly sensitive and multiplexed diagnostic platforms capable of detecting multiple targets simultaneously. The COVID-19 pandemic has highlighted the importance of infectious disease testing and surveillance on a global scale. Biological sensors are being used in the development of rapid antigen tests, molecular assays, and serological tests for the detection of SARS-CoV-2 and other infectious pathogens. The need for rapid and reliable diagnostic tests for infectious diseases is driving investment and innovation in the diagnostic segment of the biological sensors market.

Regional Insights

North America emerged as the dominant player in the Global Biological Sensors Market in 2023. North America, particularly the United States and Canada, boasts advanced healthcare infrastructure, including hospitals, research institutions, and medical facilities. This infrastructure facilitates the development, adoption, and integration of biological sensor technologies into clinical practice and healthcare systems. North America is home to leading research universities, academic institutions, and private research organizations that actively contribute to innovation in biological sensor technologies. The region attracts top talent and investment in R&D, fostering a vibrant ecosystem for developing cutting-edge sensor technologies and applications. The United States has a well-established regulatory framework overseen by agencies such as the Food and Drug Administration (FDA). Clear regulatory pathways for medical devices and diagnostics enable companies to navigate the approval process efficiently, accelerating the commercialization and adoption of biological sensors in healthcare settings.

Key Market Players

Epicore Biosystems, Inc.

GraphWear Technologies Inc.

Kenzen Inc.

Rohm Co., Ltd.

QardioCore

iRhythm Technologies, Inc.

Masimo Corporation

Celte S.p.a.

Omron Corporation

Koninklijke Philips N.V.

Report Scope:

In this report, the Global Biological Sensors Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Biological Sensors Market, By Type:

Heart Rate Monitoring Sensors

Brain Wave Sensors

Sweat Gland Activity Sensors

Breathing Rate Monitoring Sensors

Others

Biological Sensors Market, By Application:

Diagnostic

Monitoring

Therapeutic

Biological Sensors Market, By Product Type:

Embedded Device

Sensor Patch

Biological Sensors Market, By Region:

North America

United States

Canada

Mexico

Europe

Germany

United Kingdom

France

Italy

Spain

Asia-Pacific

China

Japan

India

Australia

South Korea

Vietnam

Singapore

Indonesia

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Turkey

Egypt

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Biological Sensors Market.

Available Customizations:

Global Biological Sensors market report with the given market data, Tech Sci Research offers customizations according to a company's specific needs. The following

Biological Sensors Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2019-2029 Segmente...

customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

4. VOICE OF CUSTOMER

5. GLOBAL BIOLOGICAL SENSORS MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Type (Heart Rate Monitoring Sensors, Brain Wave Sensors, Sweat Gland Activity Sensors, Breathing Rate Monitoring Sensors, Others)
 - 5.2.2. By Product Type (Embedded Device, Sensor Patch)
 - 5.2.3. By Application (Diagnostic, Monitoring, Therapeutic)

- 5.2.4. By Region
- 5.2.5. By Company (2023)
- 5.3. Market Map

6. NORTH AMERICA BIOLOGICAL SENSORS MARKET OUTLOOK

- 6.1. Market Size & Forecast
 - 6.1.1. By Value
- 6.2. Market Share & Forecast
 - 6.2.1. By Type
 - 6.2.2. By Product Type
 - 6.2.3. By Application
 - 6.2.4. By Country
- 6.3. North America: Country Analysis
 - 6.3.1. United States Biological Sensors Market Outlook
 - 6.3.1.1. Market Size & Forecast
 - 6.3.1.1.1. By Value
 - 6.3.1.2. Market Share & Forecast
 - 6.3.1.2.1. By Type
 - 6.3.1.2.2. By Product Type
 - 6.3.1.2.3. By Application
 - 6.3.2. Canada Biological Sensors Market Outlook
 - 6.3.2.1. Market Size & Forecast
 - 6.3.2.1.1. By Value
 - 6.3.2.2. Market Share & Forecast
 - 6.3.2.2.1. By Type
 - 6.3.2.2.2. By Product Type
 - 6.3.2.2.3. By Application
 - 6.3.3. Mexico Biological Sensors Market Outlook
 - 6.3.3.1. Market Size & Forecast
 - 6.3.3.1.1. By Value
 - 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Type
 - 6.3.3.2.2. By Product Type
 - 6.3.3.2.3. By Application

7. EUROPE BIOLOGICAL SENSORS MARKET OUTLOOK

- 7.1. Market Size & Forecast

- 7.1.1. By Value
- 7.2. Market Share & Forecast
 - 7.2.1. By Type
 - 7.2.2. By Product Type
 - 7.2.3. By Application
 - 7.2.4. By Country
- 7.3. Europe: Country Analysis
 - 7.3.1. France Biological Sensors Market Outlook
 - 7.3.1.1. Market Size & Forecast
 - 7.3.1.1.1. By Value
 - 7.3.1.2. Market Share & Forecast
 - 7.3.1.2.1. By Type
 - 7.3.1.2.2. By Product Type
 - 7.3.1.2.3. By Application
 - 7.3.2. Germany Biological Sensors Market Outlook
 - 7.3.2.1. Market Size & Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share & Forecast
 - 7.3.2.2.1. By Type
 - 7.3.2.2.2. By Product Type
 - 7.3.2.2.3. By Application
 - 7.3.3. United Kingdom Biological Sensors Market Outlook
 - 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
 - 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Type
 - 7.3.3.2.2. By Product Type
 - 7.3.3.2.3. By Application
 - 7.3.4. Italy Biological Sensors Market Outlook
 - 7.3.4.1. Market Size & Forecast
 - 7.3.4.1.1. By Value
 - 7.3.4.2. Market Share & Forecast
 - 7.3.4.2.1. By Type
 - 7.3.4.2.2. By Product Type
 - 7.3.4.2.3. By Application
 - 7.3.5. Spain Biological Sensors Market Outlook
 - 7.3.5.1. Market Size & Forecast
 - 7.3.5.1.1. By Value
 - 7.3.5.2. Market Share & Forecast

- 7.3.5.2.1. By Type
- 7.3.5.2.2. By Product Type
- 7.3.5.2.3. By Application

8. ASIA-PACIFIC BIOLOGICAL SENSORS MARKET OUTLOOK

- 8.1. Market Size & Forecast
 - 8.1.1. By Value
- 8.2. Market Share & Forecast
 - 8.2.1. By Type
 - 8.2.2. By Product Type
 - 8.2.3. By Application
 - 8.2.4. By Country
- 8.3. Asia-Pacific: Country Analysis
 - 8.3.1. China Biological Sensors Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Type
 - 8.3.1.2.2. By Product Type
 - 8.3.1.2.3. By Application
 - 8.3.2. India Biological Sensors Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Type
 - 8.3.2.2.2. By Product Type
 - 8.3.2.2.3. By Application
 - 8.3.3. Japan Biological Sensors Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Type
 - 8.3.3.2.2. By Product Type
 - 8.3.3.2.3. By Application
 - 8.3.4. South Korea Biological Sensors Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast

- 8.3.4.2.1. By Type
- 8.3.4.2.2. By Product Type
- 8.3.4.2.3. By Application
- 8.3.5. Australia Biological Sensors Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value
 - 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Type
 - 8.3.5.2.2. By Product Type
 - 8.3.5.2.3. By Application
- 8.3.6. Vietnam Biological Sensors Market Outlook
 - 8.3.6.1. Market Size & Forecast
 - 8.3.6.1.1. By Value
 - 8.3.6.2. Market Share & Forecast
 - 8.3.6.2.1. By Type
 - 8.3.6.2.2. By Product Type
 - 8.3.6.2.3. By Application
- 8.3.7. Singapore Biological Sensors Market Outlook
 - 8.3.7.1. Market Size & Forecast
 - 8.3.7.1.1. By Value
 - 8.3.7.2. Market Share & Forecast
 - 8.3.7.2.1. By Type
 - 8.3.7.2.2. By Product Type
 - 8.3.7.2.3. By Application
- 8.3.8. Indonesia Biological Sensors Market Outlook
 - 8.3.8.1. Market Size & Forecast
 - 8.3.8.1.1. By Value
 - 8.3.8.2. Market Share & Forecast
 - 8.3.8.2.1. By Type
 - 8.3.8.2.2. By Product Type
 - 8.3.8.2.3. By Application

9. SOUTH AMERICA BIOLOGICAL SENSORS MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Type
 - 9.2.2. By Product Type

- 9.2.3. By Application
- 9.2.4. By Country
- 9.3. South America: Country Analysis
 - 9.3.1. Brazil Biological Sensors Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Type
 - 9.3.1.2.2. By Product Type
 - 9.3.1.2.3. By Application
 - 9.3.2. Argentina Biological Sensors Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Type
 - 9.3.2.2.2. By Product Type
 - 9.3.2.2.3. By Application
 - 9.3.3. Colombia Biological Sensors Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Type
 - 9.3.3.2.2. By Product Type
 - 9.3.3.2.3. By Application

10. MIDDLE EAST AND AFRICA BIOLOGICAL SENSORS MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Type
 - 10.2.2. By Product Type
 - 10.2.3. By Application
 - 10.2.4. By Country
- 10.3. MEA: Country Analysis
 - 10.3.1. South Africa Biological Sensors Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast

- 10.3.1.2.1. By Type
- 10.3.1.2.2. By Product Type
- 10.3.1.2.3. By Application
- 10.3.2. Saudi Arabia Biological Sensors Market Outlook
 - 10.3.2.1. Market Size & Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share & Forecast
 - 10.3.2.2.1. By Type
 - 10.3.2.2.2. By Product Type
 - 10.3.2.2.3. By Application
- 10.3.3. UAE Biological Sensors Market Outlook
 - 10.3.3.1. Market Size & Forecast
 - 10.3.3.1.1. By Value
 - 10.3.3.2. Market Share & Forecast
 - 10.3.3.2.1. By Type
 - 10.3.3.2.2. By Product Type
 - 10.3.3.2.3. By Application
- 10.3.4. Turkey Biological Sensors Market Outlook
 - 10.3.4.1. Market Size & Forecast
 - 10.3.4.1.1. By Value
 - 10.3.4.2. Market Share & Forecast
 - 10.3.4.2.1. By Type
 - 10.3.4.2.2. By Product Type
 - 10.3.4.2.3. By Application
- 10.3.5. Egypt Biological Sensors Market Outlook
 - 10.3.5.1. Market Size & Forecast
 - 10.3.5.1.1. By Value
 - 10.3.5.2. Market Share & Forecast
 - 10.3.5.2.1. By Type
 - 10.3.5.2.2. By Product Type
 - 10.3.5.2.3. By Application

11. MARKET DYNAMICS

- 11.1. Drivers
- 11.2. Challenges

12. MARKET TRENDS & DEVELOPMENTS

- 12.1. Merger & Acquisition (If Any)
- 12.2. Product Launches (If Any)
- 12.3. Recent Developments

13. PORTER'S FIVE FORCES ANALYSIS

- 13.1. Competition in the Industry
- 13.2. Potential of New Entrants
- 13.3. Power of Suppliers
- 13.4. Power of Customers
- 13.5. Threat of Substitute Product

14. COMPETITIVE LANDSCAPE

- 14.1. Epicore Biosystems, Inc.
 - 14.1.1. Business Overview
 - 14.1.2. Company Snapshot
 - 14.1.3. Products & Services
 - 14.1.4. Financials (As Reported)
 - 14.1.5. Recent Developments
 - 14.1.6. Key Personnel Details
 - 14.1.7. SWOT Analysis
- 14.2. GraphWear Technologies Inc.
- 14.3. Kenzen Inc.
- 14.4. Rohm Co., Ltd.
- 14.5. QardioCore
- 14.6. iRhythm Technologies, Inc.
- 14.7. Masimo Corporation
- 14.8. Celta S.p.a.
- 14.9. Omron Corporation
- 14.10. Koninklijke Philips N.V.

15. STRATEGIC RECOMMENDATIONS

16. ABOUT US & DISCLAIMER

I would like to order

Product name: Biological Sensors Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2019-2029 Segmented by Type (Heart Rate Monitoring Sensors, Brain Wave Sensors, Sweat Gland Activity Sensors, Breathing Rate Monitoring Sensors, Others), By Product Type (Embedded Device, Sensor Patch), Application (Diagnostic, Monitoring, Therapeutic), By Region, and By Competition

Product link: <https://marketpublishers.com/r/BDD5E6B23FD2EN.html>

Price: US\$ 4,900.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/BDD5E6B23FD2EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below
and fax the completed form to +44 20 7900 3970