

# Single Use Sensors Market for Bioprocessing by Type of Sensor, Type of Bioprocessing and Key Geographical Regions (North America, Europe, Asia Pacific and Rest of the World): Industry Trends and Global Forecasts, 2021-2035

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## Abstracts

Single Use Sensors Market by Type of Sensor (Conductivity, Flow, pH, Pressure and Temperature), Type of Bioprocessing (Upstream, Downstream and Both), and Key Geographical Regions (North America, Europe, Asia Pacific and Rest of the World): Industry Trends and Global Forecasts, 2021-2035

Report Link: <https://www.rootsanalysis.com/reports/single-use-sensors-for-bioprocessing.html>

The market for single-use sensors in bioprocessing is currently estimated at \$280 million in 2022 and is projected to experience a robust compound annual growth rate (CAGR) of 15% over the forecast period.

With several blockbuster drugs already on the market and many more in the development pipeline, the modern biopharmaceutical industry is poised for significant growth in the coming years. The success of biopharmaceutical drugs has necessitated an upgrade in conventional biologics manufacturing equipment. Consequently, the industry has witnessed various technological advancements, including the adoption of controllers and automated systems.

Sensors and controllers are pivotal components of bioprocess control systems, ensuring that processes remain within precise parameters by making necessary adjustments. Sensors collect data and transmit it to the controller, which then instructs valves to

maintain the desired environmental conditions throughout the manufacturing process. This not only minimizes the risk of human errors but also enhances product quality. Over time, single-use sensors have gained popularity due to their advantages, such as a lower risk of contamination, ease of use, and accuracy and robustness comparable to conventional measurement techniques.

A significant portion of single-use bioreactors is now equipped with single-use sensors to measure various variables, including conductivity, dissolved oxygen, pH, and pressure. Moreover, several developers offer customized single-use sensors tailored to meet the specific requirements of research and manufacturing protocols. Some single-use sensors are pre-installed or integrated into other single-use systems, such as bioreactors, bags, and fermenters. It's worth noting that the ongoing COVID-19 pandemic has led to an increased demand for advanced biomanufacturing solutions, with single-use systems being extensively utilized in the production of various COVID-19 vaccines. This situation presents lucrative opportunities for companies operating in the single-use sensors market. Driven by the growing adoption of single-use systems and technologies, the single-use sensors market is expected to witness substantial growth throughout the forecast period.

## Key Market Segments

### Type of Sensor

Conductivity

Flow

Ph

Pressure

Temperature

### Type of Bioprocessing

Upstream

Downstream

Both

## Geographical Regions

North America

Europe

Asia Pacific

Rest of the World

## Research Coverage:

The report studies the single use sensors market by type of sensor, type of bioprocessing and key geographical regions.

The report analyzes factors (such as drivers, restraints, opportunities, and challenges) affecting the market growth.

The report assesses the potential advantages and obstacles within the market for those involved and offers information on the competitive environment for top players in the market.

The report forecasts the revenue of market segments with respect to major regions.

An overview of key findings from our research on the single use sensors market, offering insights into its current state and likely evolution in the short, mid, and long term.

A comprehensive evaluation of the overall market landscape of single-use sensors, considering various relevant parameters, such as sensor type (conductivity, flow, pH probe, pressure, and temperature), bioprocessing type, measurement range, operating temperature, sterilization technique, material composition, and application area. Furthermore, the chapter offers insights into

companies participating in single-use sensor development, providing details like their founding year, company size, and headquarters location.

A detailed analysis of the competitive landscape among different types of single-use sensors, taking into account several pertinent parameters, such as product applicability (based on controlled processes and applications) and product strengths (based on essential features and sterilization techniques employed).

In-depth profiles of leading players involved in single-use sensor development. Each company profile includes a concise overview of the company, information regarding its product portfolio, recent advancements, and an informed outlook for the future.

A contemporary case study on pre-installed single-use sensor systems, subject to analysis based on multiple parameters, including sensor type, measuring range, operating temperature, and applications. Additionally, it provides insights into the developer landscape, encompassing data on their establishment year, company size, and headquarters location.

An insightful case study on the market landscape of single-use bioreactors, considering a range of parameters such as development status (commercially available or under development), bioreactor type (stirred tank, pneumatically mixed, rocker/rotating, wave-induced, paddle sleeve, fixed-bed, hollow fiber, diffusion, orbitally shaken, and others), operational scale (laboratory, pilot, and large scale), application areas (cancer research, drug discovery/toxicology testing, stem cell research, tissue engineering/regenerative medicine, and others), working volume, bioreactor weight, stirrer speed, handled cell cultures (mammalian, insect, microbial, viral, plant, bacterial, and others), and type of molecules (vaccine, monoclonal antibody, recombinant protein, stem cell, cell therapy, gene therapy, and others). The case study includes a contemporary market trend analysis that comprises [A] a treemap comparing bioreactor types and company sizes, [B] a grid representation based on operational scale, application area, and cell culture type, [C] a heatmap analyzing bioreactor types and application areas, and [D] a world map representing the regional distribution of players based on their headquarters location. Additionally, it provides information about companies engaged in single-use bioreactor development, including their founding year, company size, and headquarters location.

A detailed case study on the market landscape of various types of bioprocess

controllers, considering important parameters like operational scale (laboratory, clinical, and commercial), key features (scalability/ease of use, visual data display, remote accessibility, built-in system control sensors, extensive I/O compatibility, and provisions for alarms/alerts), compatibility with bioreactor systems (stirred tank (glass), single-use bioreactor, stirred tank (steel), fermenter, rocking motion), mode of operation (batch, fed-batch, and perfusion), and the types of processes controlled (cell cultivation and microbial fermentation). Additionally, the chapter provides insights into companies involved in bioprocess controller development, including information on their establishment year, company size, and headquarters location.

### Key Benefits of Buying this Report

The report offers market leaders and newcomers valuable insights into revenue estimations for both the overall market and its sub-segments.

Stakeholders can utilize the report to enhance their understanding of the competitive landscape, allowing for improved business positioning and more effective go-to-market strategies.

The report provides stakeholders with a pulse on the single use sensors market, furnishing them with essential information on significant market drivers, barriers, opportunities, and challenges.

You will get access to complimentary PPT insights and excel data packs / dynamic dashboards to easily navigate through complex analyses / charts.

### Key Market Companies

Applied Biosensors

Levitronix

Malema Engineering

Masterflex (acquired by Avantor)

Parker Hannifin

PendoTECH (acquired by METTLER TOLEDO)

PreSens Precision Sensing and Finesse Solutions (acquired by Thermo Fisher Scientific)

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