

pH Sensors Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global pH sensors market size reached US\$ 698.6 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 1,582.5 Million by 2028, exhibiting a growth rate (CAGR) of 14.60% during 2022-2028.

A pH sensor is an electronic device used for analyzing the hydrogen ion activity and measuring the acidity or alkalinity of water-based solutions. It consists of measuring electrodes, reference electrolytes and temperature sensing elements. Some of the commonly used variants include combination, differential, consumer-grade, benchtop, portable and process pH sensors. They operate through optical sensors, ion-selective field-effect transistors (ISFET) and amperometric detectors. pH sensors are also utilized for analyzing the pH of pharmaceutical solutions and chemicals. As a result, they find extensive applications across various industries, including chemical, oil and gas, food and beverage, medical, agriculture and paper.

pH Sensors Market Trends:

The increasing requirement for industrial automation across the globe is one of the key factors driving the growth of the market. Moreover, the widespread adoption of effective water treatment solutions is providing a thrust to the market growth. pH sensors and analyzers are used in water, wastewater, chromium and aquaculture treatment plants to get accurate readings of the pH and oxidation-reduction potential (ORP) levels. They are also utilized to monitor drug efficiency and ensure optimal pH levels for the manufacturing of pharmaceutical products. In line with this, increasing consumer awareness regarding the adverse effects of acidic and basic water emitted from industrial units is also contributing to the growth of the market. Additionally, various product innovations, such as the launch of the Internet of Things (IoT)-enabled digital pH sensors, are acting as other growth-inducing factors. These advanced sensors

provide real-time updates through smartphone applications and store the data on the cloud for remote access. Other factors, including the implementation of favorable government policies to promote environmental protection, along with extensive research and development (R&D) activities, are anticipated to drive the market toward growth.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global pH sensors market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on type, system type, product type, measurement technology and application.

Breakup by Type:

- Process Sensors
- Differential Sensors
- Combination pH Sensors
- Laboratory Sensors

Breakup by System Type:

- Benchtop
- Portable

Breakup by Product Type:

- Digital
- Analog

Breakup by Measurement Technology:

- Optical Sensors
- Ion-Selective Field Effect Transistors (ISFET)
- Amperometric Detectors
- Others

Breakup by Application:

- Water and Wastewater
- Medical

Oil and Gas
Food and Beverages
Metals and Mining
Agriculture
Others

Breakup by Region:

North America
United States
Canada
Asia-Pacific
China
Japan
India
South Korea
Australia
Indonesia
Others
Europe
Germany
France
United Kingdom
Italy
Spain
Russia
Others
Latin America
Brazil
Mexico
Others
Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being ABB Ltd, Emerson Electric Co., Endress+Hauser AG, GF Piping Systems (Georg Fischer Ltd.), Hach Company (Danaher Corporation), Halma plc, Honeywell International Inc., Mettler-Toledo International Inc., Schneider Electric SE, Thermo Fisher Scientific Inc., Xylem Inc. and Yokogawa Electric Corporation.

Key Questions Answered in This Report:

How has the global pH sensors market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global pH sensors market?

What are the key regional markets?

What is the breakup of the market based on the type?

What is the breakup of the market based on the system type?

What is the breakup of the market based on the product type?

What is the breakup of the market based on the measurement technology?

What is the breakup of the market based on the application?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global pH sensors market and who are the key players?

What is the degree of competition in the industry?

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