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

Market Report | 2023-05-29 | 141 pages | IMARC Group

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Report description:

Market Overview:

The global wireless sensors market size reached US$ 10.0 Billion in 2022. Looking forward, IMARC Group expects the market to reach US$ 28.3 Billion by 2028, exhibiting a growth rate (CAGR) of 18.2% during 2023-2028.

Wireless sensors are standard measurement tools that are equipped with transmitters that can convert signals from process control instruments into a radio transmission. Originally conceptualized for military use, these networks now have wide ranging applications in civilian, industrial, and consumer markets. These extend from preventing trespassing to monitoring building strength and evaluating water quality to measuring individual heart rate.

Wireless sensors are also used in areas that are difficult to access due to severe environment conditions such as high temperature, pH, pressure, etc. With the help of wireless sensors, operators can constantly supervise processes in extreme environments and report the information back to an operator in a monitoring facility that may be located at a safe distance away. They are also convenient for acquiring data in difficult to access locations. The radio signal is interpreted by a receiver that further converts the wireless signal into a particular, required output, such as an analog current or data analysis via computer software.

Over the past few years, various new technological advancements have been made on account of which there has been a significant improvement in the overall performance of wireless sensors. This has given a rise to the use of these sensors across numerous end-use industries such as food and beverage, automation, and defence. Wireless sensors are also utilised for various purposes like forest fire detection, water management and flood detection. They are also beneficial for monitoring greenhouse gas emission as well as pest and disease detection. Furthermore, wireless sensors generate a significant quantity of data that can yield actionable insights, catalysing continuous process improvement.

Implementation at scale, nevertheless, is not without its roadblocks. The development of cost effective, ubiquitous sensor networks primary depends upon the speed and quality of technological advancement, alternate methods of power supply, and the advancement of technical regulations and standards.

Key Market Segmentation:

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

Breakup by Product Type:

Temperature Sensors
Pressure Sensors
Level Sensors
Flow Sensors
Humidity Sensors
Biosensors
Gas Sensors
Surveillance and Security Sensors
Motion and Positioning Sensors
Others

Based on the product type, the market has been segmented into temperature sensors, pressure sensors, level sensors, flow sensors, humidity sensors, biosensors, gas sensors, surveillance and security sensors, motion and positioning sensors, and other segments.

Breakup by Technology:

Bluetooth
Wi-Fi and WLAN
Zigbee
WirelessHART
RFID
EnOcean
Others

Based on the technology, the market has been segmented into Bluetooth, Wi-Fi and WLAN, Zigbee, WirelessHART, RFID, EnOcean and others.

Breakup by End-Use:

Industrial
Medical
Energy
Defense
Agriculture

Office and Residential
Others

On the basis of end-use, the industrial segment represents the largest segment. Other major segments include medical, energy, defense, agriculture, office and residential, and others.

Breakup by Region:

North America
Asia Pacific
Europe
Middle East and Africa
Latin America

Region-wise, the market has been segmented into North America, Asia Pacific, Europe, Middle East and Africa, and Latin America.

Competitive Landscape:

The competitive landscape of the market has also been examined with some of the key players being ABB Ltd, STMicroelectronics, Texas Instruments Incorporated, Freescale Semiconductors Inc, Rockwell Automation Inc., Emerson Electric Co, Honeywell International Inc., Schneider Electric SA, Endress+Hauser SA, Yokogawa Electric Corporation, Siemens AG and General Electric.

This report provides a deep insight into the global wireless sensors market covering all its essential aspects. This ranges from macro overview of the market to micro details of the industry performance, recent trends, key market drivers and challenges, SWOT analysis, Porter's five forces analysis, value chain analysis, etc. This report is a must-read for entrepreneurs, investors, researchers, consultants, business strategists, and all those who have any kind of stake or are planning to foray into the wireless sensors industry in any manner.

Key Questions Answered in This Report:

What was the size of the global wireless sensors market in 2022?
What is the expected growth rate of the global wireless sensors market during 2023-2028?
What are the key factors driving the global wireless sensors market?
What has been the impact of COVID-19 on the global wireless sensors market?
What is the breakup of the global wireless sensors market based on the product type?
What is the breakup of the global wireless sensors market based on the technology?
What is the breakup of the global wireless sensors market based on the end-use?
What are the key regions in the global wireless sensors market?
Who are the key players/companies in the global wireless sensors market?

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